

This document is intended to be read first before attempting to review the Commonwealth of Pennsylvania Agreement State Application.

This CD-ROM contains the May 19, 2006 draft of the draft Pennsylvania application to become a U.S. Nuclear Regulatory Commission Agreement State. There are several dozen files on this disc. For the readers convenience please use the following three documents as your primary navigation tools:

Program Description

SA-700, Handbook for Processing an Agreement sections linked to Pennsylvania's answer to the 'Information Needed'.

Disc contents cross referenced to relevant SA-700, Handbook for Processing an Agreement sections. File Name: Interactive_Index.xls

This application is being submitted on CD-ROM and proper viewing is dependant on the use of a PC and the following computer programs: Microsoft Word (version 8 or higher), Microsoft Excel (Version 8 or higher), Microsoft PowerPoint (Version 8 or higher), and Adobe Acrobat Reader. Hyperlinks within the CD-ROM are used heavily. Where Internet hyperlinks are used they are not essential to the application. A paper copy has been supplied as a backup only and does not indicate vital hyperlink metadata. The Interactive Index file is organized to correspond and respond to sections of the Handbook for Processing an Agreement (SA-700), specifically the "information needed" paragraphs of section 4. In this structure introductory verbiage is not provided for all sections. Where the Program deemed necessary, introductory verbiage and background information is in the Program Description.

Also being submitted is the Bureau's Nuclear Power Plant Emergency Response Plan. The April 2006 CD-ROM is attached and is relevant as a guide for all emergency response within the Program.

This CD-ROM contains an autorun file that opens an important MS Word document automatically upon loading into a PC disc drive. If autorun is disabled on your machine you will need to open the 'Open_Me_First.doc' file manually before attempting to review the Commonwealth of Pennsylvania Agreement State Application.

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PA Acts / Authority

No. 1984-147

AN ACT

SB 987

Combining the radiation safety provisions of The Atomic Energy Development and Radiation Control Act and the Environmental Radiation Protection Act; empowering the Department of Environmental Resources to implement a comprehensive Statewide radiation protection program; further providing for the power of the Environmental Quality Board and for the duties of the Environmental Hearing Board; expanding the authority of the department to regulate other radiation sources; providing for radiation emergency response; establishing requirements for transport of spent reactor fuel; establishing fees; providing penalties; making repeals; and authorizing and directing the Department of Environmental Resources and the Governor to convey ownership to the Carl A. White Acid Mine Drainage Treatment Plant, situated in Washington Township, Indiana County, Pennsylvania, to the County of Indiana, subject to a right of reverter for stated conditions.

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The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

CHAPTER 1 GENERAL PROVISIONS

Section 101. Short title.

This act shall be known and may be cited as the Radiation Protection Act.

Section 102. Legislative findings.

The General Assembly hereby determines, declares and finds that, since radiation exposure has the potential for causing undesirable health effects, the citizens of the Commonwealth should be protected from unnecessary and harmful exposure resulting from use of radioactive materials, radiation sources, accidents involving nuclear power and radioactive material transportation. It is the purpose of this act to:

- (1) Establish and maintain a comprehensive program of radiation protection in the Department of Environmental Resources.
- (2) Provide for the licensing and regulation in cooperation with the Federal Government, other State agencies and appropriate private entities of radiologic equipment and procedures.
- (3) Maintain a comprehensive environmental radiation monitoring program around nuclear power plants and at other locations throughout the Commonwealth.
- (4) Establish a nuclear safety program to make evaluations of all nuclear power plants in the Commonwealth, such evaluations restricted to the specific use of the Secretary of Environmental Resources and his designees authorized by law for the purpose of informing the Governor, the General Assembly and concerned and affected Federal, State and local government organizations. It is not the intent of the act to duplicate or conflict with any aspect of the exclusive Federal regulatory authority applicable to nuclear power plants and licensed plant operators but rather

to provide the Commonwealth with requisite, qualified professional nuclear expertise to maintain a competent and continuing awareness of nuclear power plant activities throughout this Commonwealth and to exclusively employ that expertise for the appropriate and authorized needs of the Commonwealth when such activities may have a significant potential for consequences beyond the site of a nuclear power plant. Accordingly, except as expressly and directly stated, none of the provisions of Chapter 3 are applicable to nuclear power plants and licensed plant operators.

(5) Maintain a technical emergency radiation response capability within the Department of Environmental Resources, in conjunction with the Pennsylvania Emergency Management Agency, to respond to accidents at nuclear power plants or at any other location throughout the Commonwealth.

(6) Assume licensing and regulatory responsibility for radioactive materials from the Federal Government. This act shall not authorize the department to license or operate low-level radioactive waste disposal sites.

(7) Carry out comprehensive remedial action programs.

(8) Establish in the Pennsylvania Emergency Management Agency a comprehensive radiation emergency response program supported by fees from the nuclear industry.

(9) Establish a Radiation Transportation Emergency Response Plan and Procedures for notification of spent nuclear fuel shipments, Pennsylvania State Police escort and establishing fees.

(10) Establish fees.

(11) Provide for notification by nuclear power facility operating licensees of municipalities within the vicinity of nuclear power facilities of unusual radioactivity.

Section 103. Definitions.

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Abatement." Any action deemed necessary by the department to protect public health, safety or welfare, or public or private property, resulting from the use of a radiation source.

"Agency." The Pennsylvania Emergency Management Agency.

"Council." The Pennsylvania Emergency Management Council.

"Department." The Department of Environmental Resources and its authorized representatives.

"Director." The Director of the Pennsylvania Emergency Management Agency.

"Electronic product radiation." Any radiation emitted by products subject to the Radiation Control for Health and Safety Act of 1968 (Public Law 90-602, 82 Stat. 1173).

"NRC." The United States Nuclear Regulatory Commission or any predecessor or successor thereto.

"Person." An individual, corporation, firm, association, public utility, trust, estate, public or private institution, group, agency, political subdivision of the Commonwealth, any other state or political subdivision or agency thereof and any legal successor, representative, agent or agency of the foregoing, other than the United States Nuclear Regulatory Commission or any successor thereto. In any provision of this act prescribing a fine, imprisonment or penalty, or any combination of the foregoing, the term "person" shall include the officers and directors of any corporation or other legal entity having officers and directors.

"PSP." The Pennsylvania State Police.

"Radiation." Any ionizing radiation or electronic product radiation.

"Radiation source." An apparatus or material, other than a nuclear power reactor and nuclear fuel located on a plant site, emitting or capable of emitting radiation.

"Radiation source user." A person who owns or is responsible for a radiation source.

"Secretary." The Secretary of Environmental Resources or his authorized representative.

"Spent nuclear fuel." Fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing.

CHAPTER 2 FEDERAL-STATE AGREEMENTS

Section 201. Federal-State agreements.

The Governor, on behalf of this Commonwealth, is authorized to enter into agreements with Federal agencies for discontinuance of certain of the Federal Government's activities with respect to radiation protection and the assumption thereof by the Commonwealth.

CHAPTER 3 RADIATION PROTECTION

Section 301. Powers and duties of Department of Environmental Resources.

(a) Regulation in general.—The department is hereby designated as the agency of the Commonwealth for the purpose of registration, licensing, regulation and control of radiation, radiologic procedures, radiation sources and users of radiation sources but, notwithstanding anything in this act to the contrary, shall not have the power to license or regulate telecommunications equipment in duplication of any activity regulated by the Federal Government.

(b) Employees.—In accordance with the law of this Commonwealth, the department shall employ, compensate and prescribe the powers and duties of such individuals as may be necessary to carry out the provisions of this act.

(c) Powers and duties.—The department shall have the power and its duties shall be to:

(1) Develop and conduct programs for evaluation of hazards associated with the use of radiation sources and with radiation source users.

(2) Develop and conduct comprehensive programs for the registration, licensing, control, management, regulation and inspection of radiation sources and radiation source users.

(3) Prevent and remedy hazards associated with the misuse of any device emitting electronic product radiation.

(4) Issue such orders or modifications thereof as may be necessary in conjunction with proceedings under this act.

(5) Carry out a comprehensive program of monitoring levels of radioactivity in Pennsylvania's environment, including all appropriate tests for alpha, beta and gamma levels in all appropriate media. Sites to be monitored shall include, but not be limited to, nuclear power reactor sites, other nuclear fuel cycle or research facilities, other sites with a substantial potential for environmental radioactivity contamination and other locations in the Commonwealth recommended by other agencies of the Commonwealth.

(6) Using personnel qualified by education, training and experience, enter nuclear power plants at times and in numbers as are reasonable under the circumstances to observe, identify and assess radiation safety issues for each nuclear power plant site in the Commonwealth.

(7) Develop, prepare and submit to the Senate Environmental Resources and Energy Committee and House Conservation Committee, within two years of the effective date of this act, a plan to provide the department with independent monitoring capabilities at all nuclear facilities in the Commonwealth in order to identify events requiring remedial action to protect the public from radiation exposure.

(8) Prepare a technical emergency radiation response plan for incorporation into the Pennsylvania Emergency Management Plan developed by the Pennsylvania Emergency Management Agency pursuant to Title 35 of the Pennsylvania Consolidated Statutes (relating to health and safety), and provide the capability for responding to emergencies at each nuclear power plant and at other important locations throughout the Commonwealth.

(9) Make available technical staff and equipment to determine levels of radiation in the environment and identify emergency measures to protect the public from exposure to such radiation in the event of an accident at a nuclear power plant, a transportation accident involving radioactive materials or any other condition or occurrence which necessitates radiation emergency assistance at any location in the Commonwealth.

(10) Advise the Governor, the General Assembly and the general public with regard to nuclear safety, nuclear emergencies, radioactive waste management, environmental monitoring results and other radiation control activities and consult and cooperate with the various departments, agencies and political subdivisions of the Commonwealth, the Federal Government, other states, interstate agencies, political subdivisions and with groups and individuals, including members of the public, concerned

with radiation safety and participate in matters before the Nuclear Regulatory Commission or its successor and other appropriate agencies and courts of the United States.

(11) Accept and administer loans, grants or other funds or gifts, conditional or otherwise, in furtherance of its functions, from any source, public or private, including the Federal Government, provided any funds received shall be subject to appropriation by the General Assembly.

(12) Encourage, participate in or conduct studies, investigations, training, research, remedial actions and demonstrations relating to control, regulation and monitoring of radiation sources.

(13) Collect and disseminate information related to nuclear power, the control of radiation sources, radiation protection, emergency response and the effects of radiation exposure.

(14) Establish special advisory committees as may be necessary to assist the department in drafting rules and regulations and to advise the department regarding implementation of specific portions of the regulations or specific programs of the department. Each committee shall include members of the general public. Members of these committees may be reimbursed by the department for reasonable and necessary expenses incurred in connection with their duties as approved by the secretary.

(15) Issue registrations and licenses and specify the terms and conditions thereof. This is not intended to require registration and licenses of facilities and activities within the exclusive jurisdiction of the Nuclear Regulatory Commission.

(16) Require the payment of and collect fees established under Chapter 4.

(17) Issue orders and institute proceedings in courts against any person or municipality to compel compliance with this act, any rule or regulation, any order of the department or the terms and conditions of any registration or license.

(18) Institute prosecutions against any person or municipality for violation of this act.

(19) Assess civil penalties pursuant to section 308(e).

(20) Prepare a report on environmental radiation levels, as determined by the monitoring program, on at least an annual basis. Copies of the report shall be submitted to the President pro tempore of the Senate and the Speaker of the House of Representatives of the General Assembly and shall be made available to the general public. The report shall also contain a description and analysis of any emergency responses or other actions taken by the department under this act and any other information about environmental radiation or radiation emergencies which the department deems to be of sufficient importance to call to the attention of the General Assembly and the citizens of the Commonwealth.

(21) Administer a program, funded by the General Assembly, to assist in the decontamination of damaged nuclear power reactors.

(22) Do any and all other acts not inconsistent with any provision of this act which it may deem necessary or proper for the effective enforcement of this act.

(d) Notification.—Whenever the department, in the course of its powers and duties as set forth in subsection (c), determines that levels of radiation exceed the normal range of radioactivity in a given area, the department shall immediately notify the Governor, the agency and the NRC and shall also report its findings to the public and it shall subsequently submit a detailed report on the occurrence to both the Governor and the NRC and shall make such report public.

Section 302. Powers of Environmental Quality Board.

(a) Powers and duties.—The Environmental Quality Board or its successor shall have the power and its duty shall be to adopt the rules and regulations of the department to accomplish the purposes and carry out the provisions of this act.

(b) Review of fee structure.—The Environmental Quality Board or its successor shall review every four years the fee structure as authorized by sections 401 and 402(b).

Section 303. Licensing and registration.

(a) Authority.—The department is authorized to license radiation source users and register any radiation sources.

(b) Exemption.—The department shall be exempt from the licensing and registration requirements of this act and is authorized to exempt certain radiation sources and users from this act provided the department determines that such action will constitute an insignificant risk to the health and safety of the public and to persons exposed to radiation sources.

(c) Approval of transfer.—No license issued under this act and no right to possess or utilize radiation sources granted by any license shall be assigned, or in any manner disposed of, without the approval of the department.

(d) Terms and conditions of licenses.—The terms and conditions of all licenses issued under this act shall be subject to amendment, revision or modification by rules, regulations or orders issued in accordance with this act.

(e) Recognition of other licenses.—Rules and regulations promulgated under this act may provide for recognition of other state or Federal licenses.

Section 304. Records.

(a) General rule.—Each person who possesses or uses any radiation source shall maintain records relating to its receipt, storage, transfer or disposal, and such other records as the department may require, subject to any exemptions as may be provided by rules or regulations.

(b) Personnel radiation exposure records.—Each person who possesses or uses a radiation source shall maintain appropriate records of personnel radiation exposure, as mandated by the rules and regulations of the department. Copies of these records and those required to be kept by subsection (a) shall be submitted to the department on written request. Any person possessing or using a radiation source shall furnish upon a reasonable request to each employee for whom personnel monitoring is required or to the employee's representative, a copy of the employee's personal exposure record as the department, by rule or regulation, may prescribe.

Section 305. Inspection.

(a) **Authority.**—The department or its duly authorized representatives shall have the power to enter at all reasonable times with sufficient probable cause upon any public or private property, building, premise or place, for the purposes of determining compliance with this act, any license conditions or any rules, regulations or orders issued under this act. In the conduct of an investigation, the department or its duly authorized representatives shall have the authority to conduct tests, inspections or examinations of any radiation source, or of any book, record, document or other physical evidence related to the use of a radiation source.

(b) **Search warrant.**—An agent or employee of the department may apply for a search warrant, to an issuing authority, for the purposes of testing, inspecting or examining any radiation source or any public or private property, building, premise, place, book, record or other physical evidence related to the use of the radiation source. A warrant shall be issued only upon probable cause. It shall be sufficient probable cause to show any of the following:

(1) The test, inspection or examination is pursuant to a general administrative plan to determine compliance with this act.

(2) The agent or employee has reason to believe that a violation of this act has occurred or may occur.

(3) The agent or employee has been refused access to the radiation source, property, building, premise, place, book, record, document or other physical evidence related to the use of the radiation source or has been prevented from conducting tests, inspections or examinations.

Section 306. Conflicting laws.

Ordinances, resolutions or regulations now or hereafter in effect of the governing body of any agency or political subdivision of this Commonwealth relating to radiation or radiation sources shall be superseded by this act if such ordinances or regulations are not in substantial conformity with this act and any rules and regulations issued hereunder.

Section 307. Prohibited uses and acts.

It shall be unlawful for any person to use, manufacture, produce, transport, transfer, bury, receive, acquire, own, possess or dispose of any radiation source in violation of this act. It shall be unlawful for any person to operate an unregistered radiation source or to operate a radiation source or to administer a radiologic procedure without a license to do so where a license or registration is required by the department by rule or regulation.

Section 308. Penalties.

(a) **Summary offense.**—Any person, other than a municipal official exercising his official duties, who violates any provisions of this act or any rules or regulations or order promulgated or issued hereunder commits a summary offense and shall, upon conviction, be sentenced to pay a fine not less than \$100 and not more than \$1,000 for each separate offense and in default thereof shall be imprisoned for a term of not more than 30 days. All summary proceedings under this act may be brought before any district justice or magistrate in the county where the offense was committed and to

that end jurisdiction is hereby conferred upon district justices and magistrates, subject to appeal by either party in the manner provided by law.

(b) **Misdemeanor.**—Any person, other than a municipal official exercising his official duties, who violates any provision of this act or any rule or regulation or order promulgated or issued hereunder, within two years after having been convicted of any summary offense under this act, commits a misdemeanor of the third degree and shall, upon conviction, be sentenced to pay a fine of not less than \$1,000 but not more than \$25,000 for each separate offense or imprisonment in the county jail for a period of not more than one year, or both.

(c) **Felony.**—Any person who intentionally, knowingly or recklessly violates any provision of this act, or any rule or regulation or order of the department or any term or condition of any permit, and whose acts or omissions cause or create the possibility of a public nuisance or bodily harm to any person, commits a felony of the second degree and shall, upon conviction, be sentenced to pay a fine of not less than \$2,500 but not more than \$100,000 per day for each violation, or to a term of imprisonment of not less than one year but not more than ten years, or both.

(d) **Separate offense for each day.**—Each day of continued violation of any provision of this act or any rule or regulation or order promulgated or issued pursuant to this act shall constitute a separate offense.

(e) **Civil penalty.**—In addition to proceeding under any other remedy available at law or in equity for a violation of this act or a regulation or order of the department promulgated or issued hereunder, the department may assess a civil penalty upon the person for the violation. This penalty may be assessed whether or not the violation was willful or negligent. The civil penalty shall not exceed \$25,000 plus \$5,000 for each day of continued violation. In determining the civil penalty, the department shall consider, where applicable, the willfulness of the violation, gravity of the violation, good faith of the person charged, history of the previous violations, danger to the public health and welfare, damage to the air, water, land or other natural resources of the Commonwealth or their uses, cost of restoration or abatement, savings resultant to the person in consequence of the violation and any other relevant facts. The person charged with the penalty shall then have 30 days to pay the proposed penalty in full or, if the person wishes to contest either the amount of the penalty or the fact of the violation, to file within a 30-day period an appeal of the action with the Environmental Hearing Board. Failure to appeal within 30 days shall result in a waiver of all legal rights to contest the violation or the amount of the penalty. Civil penalties shall be payable to the Commonwealth of Pennsylvania and shall be collectible in any manner provided by law for collection of debts. If any person liable to pay a penalty neglects or refuses to pay the same after demand, the amount, together with interest and any costs that may accrue shall be a lien in favor of the Commonwealth upon the property, both real and personal, of the person, but only after same has been entered and docketed of record by the prothonotary of the county where the property is situated. The department may, at any time, transmit to prothonotaries of the respective counties

certified copies of all such liens and it shall be the duty of each prothonotary to enter and docket the same of record in his office and to index the same as judgments are indexed, without requiring the payment of costs as a condition precedent to the entry thereof.

Section 309. Enforcement and abatement.

(a) **Public nuisance.**—Any violation of this act or of any rule, regulation or order of the department or of any term or condition of any license or registration issued under this act shall constitute a public nuisance. Any person committing the violation shall be liable for the costs of abatement of the nuisance. The Environmental Hearing Board and every court of common pleas are hereby given jurisdiction over actions to recover the costs of the abatement.

(b) **Orders.**—In addition to other remedies provided under this act or any other act, to aid in the enforcement of this act, the department may issue orders to persons as it deems necessary to protect health and safety. These orders may include an order modifying or revoking registrations or licenses, orders to cease unlawful activities or other acts involving radiation sources that are determined by the department to be detrimental to the public health and safety and such other orders as the department deems necessary to abate public nuisances. An order issued under this subsection shall take effect upon notice, unless the order specifies otherwise. An appeal to the Environmental Hearing Board shall not act as a supersedeas. It shall be the duty of any person to comply with any order issued under this subsection. Any person who fails to comply with an order issued under this subsection shall be guilty of contempt and shall be punished in an appropriate manner by the Commonwealth Court, which court is hereby granted jurisdiction, upon application by the department.

(c) **Injunction.**—In addition to any other remedies provided for in this act, the department may institute a suit in equity in the name of the Commonwealth for an injunction to restrain a violation of this act or the rules, regulations or orders adopted or issued hereunder, or to restrain the maintenance or threat of a public nuisance. In any such proceeding the court shall, upon motion by the department, issue a prohibitory or mandatory preliminary injunction if it finds that the defendant is engaging in unlawful conduct or is engaged in conduct which is causing immediate and irreparable harm to the public. The Commonwealth shall not be required to furnish bond or other security in connection with such proceedings.

(d) **Impoundment, etc.**—The department shall have the authority to impound any radiation source or to take other actions as are necessary to abate a public nuisance wherever the department believes that this action is necessary to protect the health and safety of the public.

(e) **Emergency order.**—Whenever the secretary finds that an emergency exists requiring immediate action to protect the public health and safety, the secretary may issue an emergency order reciting the existence of the emergency and requiring that such action be taken as is necessary to meet the emergency. This order shall be effective immediately. Any person to whom this order is directed shall comply therewith immediately, unless a supersedeas is granted by the Environmental Hearing Board.

(f) Revocation of licenses or permits.—Repeated violations of any provisions of this act or any rules and regulations of the department promulgated under the authority of this act or nonpayment of fees or penalties shall be cause for revocation of licenses or permits issued by the department under this act.

Section 310. Liberal construction.

The penalties and remedies prescribed by this act shall be deemed concurrent and the existence of or exercise of any remedy shall not prevent the department from exercising any other remedy at law or in equity. No provision of this act or any action taken by virtue of this act, including the granting of a registration or license, shall be construed as estopping the Commonwealth from proceeding in courts of law or equity to abate nuisances under existing law, nor shall this act in any other manner abridge or alter rights of action or remedies now or hereafter existing in equity or under the common law or statutory law, criminal or civil, exercised by the Commonwealth or any person to enforce their rights or to abate any nuisance, now or hereafter existing, in any court of competent jurisdiction.

CHAPTER 4 FEES

Section 401. Licensing and registration fees.

The department shall, by rule and regulation, set reasonable annual fees for the registration of radiation sources and the licensing of radiation source users. These fees shall be in an amount at least sufficient to cover the costs of administering the programs.

Section 402. Nuclear facility fees.

(a) General rule.—Persons engaged in the business of producing electricity utilizing nuclear energy, operating facilities for storing away-from-reactor spent nuclear fuel for others or fabrication of nuclear fuel or shipping spent nuclear fuel shall pay fees to cover the costs of the programs related to their activities as required by this act.

(b) Department fees.—Each person who has received a nuclear power reactor facility construction permit or operating license from the NRC shall pay to the department within 30 days of the effective date of this act and by July 1 of each year an annual fee of \$150,000 per power reactor, regardless of the number of reactors per site.

(c) Agency fees.—

(1) Each person who has received or has applied for a nuclear power reactor facility operating license from the NRC shall pay to the agency a one-time fee of \$200,000 per site within 30 days of the effective date of this act and an annual fee of \$100,000 per site payable by July 1 of each year, regardless of the number of power reactors per site.

(2) Each person who has applied for or received a valid license from the NRC to operate an away-from-reactor spent fuel storage facility shall pay to the agency an annual fee of \$50,000 per site payable by July 1 of each year.

(3) Each person who has applied for or received a valid license from the NRC to operate a reactor fuel fabrication facility shall pay to the agency an annual fee of \$50,000 per site payable by July 1 of each year.

(4) Each shipper of spent reactor fuel to, within, through or across the boundaries of this Commonwealth shall pay to the agency a fee of \$1,000 per shipment, payable prior to the proposed date of shipment.

(d) PSP fees.—

(1) Each shipper of spent reactor fuel to, within, through or across the Commonwealth shall reimburse the PSP for escort service at the following rates: \$20 per hour per officer and 50¢ per mile for highway shipments. Rail shipments shall be based on a rate of \$25 per hour per officer. If the shipment is canceled following PSP notification, the shipper shall compensate the PSP at an appropriate rate for four hours of officers' time.

(2) The PSP may adjust the rates by regulation as prevailing wage rates and transportation costs change.

(e) Penalties.—Any person violating any provision of this chapter shall be subject to the penalties and enforcement provisions of section 309(a) and (b).

Section 403. Creation of special funds.

(a) Radiation Protection Fund.—There is hereby created in the General Fund a restricted account to be known as the Radiation Protection Fund. Fees and penalties received under sections 401 and 402(b) shall be deposited in this fund and are hereby appropriated to the department for the purpose of carrying out its powers and duties under this act.

(b) Radiation Emergency Response Fund.—There is hereby created in the General Fund a restricted account to be known as the Radiation Emergency Response Fund. Fees received under section 402(c)(1), (2) and (3) shall be deposited in this fund as provided and are hereby appropriated to the agency for the purpose of carrying out its responsibilities under Chapter 5.

(c) Radiation Transportation Emergency Response Fund.—There is hereby created in the General Fund a restricted account to be known as the Radiation Transportation Emergency Response Fund. Fees received under section 402(c)(4) shall be deposited in this fund and are hereby appropriated to the agency for the purpose of carrying out its responsibilities under Chapter 6.

CHAPTER 5 RADIATION EMERGENCY RESPONSE PROGRAM

Section 501. Declaration of policy.

It is the policy of the General Assembly to protect the people of the Commonwealth against adverse health effects resulting from radiation accidents by establishing a mechanism for emergency preparedness to mitigate the effects of such accidents. The General Assembly finds that it is appropriate for the nuclear industry in the Commonwealth to bear the costs associated with preparing and implementing plans to deal with the effects of nuclear accidents or incidents.

Section 502. Response program.

In conjunction with the department, the agency shall develop a Radiation Emergency Response Program for incorporation into the Pennsylvania Emergency Management Plan development by the agency pursuant to Title 35 of the Pennsylvania Consolidated Statutes (relating to health and safety). Any volunteer organizations which are incorporated into the Radiation Emergency Response Program developed under the authority of this act shall be consulted prior to such incorporation. The Radiation Emergency Response Program shall include an assessment of potential nuclear accidents or incidents, the radiological consequences and necessary protective measures required to mitigate the effects of such accidents or incidents. The program shall include, but not be limited to:

(1) Development of a detailed fixed nuclear emergency response plan for areas surrounding each nuclear electrical generation facility, nuclear fabricator and away-from-reactor storage facility. The term "areas" shall be deemed to mean the emergency response zone designated by the NCR Emergency Response Plan applicable to each such fixed nuclear facility.

(2) Notification by nuclear power facility operating licensees of municipalities within the areas set forth in paragraph (1) of unusual radioactivity as defined in section 301(d).

(3) Training and equipping of State and local emergency response personnel.

(4) Periodical exercise of the accident scenarios designated in the NRC Emergency Response Plan applicable to each fixed nuclear facility.

(5) Procurement of specialized supplies and equipment.

(6) Provisions for financial assistance to municipalities, school districts, volunteer and State agencies as provided for in section 503.

Section 503. Financial assistance program.

(a) General provisions.—Applications by municipalities, school districts, volunteer organizations and State agencies to pay personnel, conduct training or purchase protective supplies and equipment principally required to carry out the purposes of Chapters 5 and 6 shall be made to the agency which shall make the disbursements pursuant to regulations promulgated by the council.

(b) Reimbursement provisions.—Municipalities, school districts, volunteer organizations and State agencies may apply for reimbursement of costs not previously recouped or to be reimbursed from other sources which were required to be expended, as a direct result of the preparation, establishment and testing of emergency response plans surrounding each nuclear electrical generation facility, for personnel costs, training expenses and protective supplies and equipment on or after March 28, 1979.

(c) Reports.—On September 1 of each year, the agency shall submit a report on its operations for the preceding fiscal year to the Governor and the General Assembly. The report shall include a summary of the activities of the Radiation Emergency Response Program and activities pursuant to shipments of spent fuel, as provided for in Chapters 5 and 6, respectively, as well as a proposed operating budget, financial statement and a listing of applica-

tions received and disbursements or reimbursements made to municipalities, school districts, volunteer organizations and State agencies pursuant to Chapters 5 and 6 and an analysis of the adequacy of fees established pursuant to section 402(c).

CHAPTER 6 TRANSPORTATION OF SPENT NUCLEAR FUEL

Section 601. General rule.

It is unlawful for any person to transport upon the highways or rails of this Commonwealth any spent nuclear fuel unless that person notifies the agency in advance of transporting the spent nuclear fuel in accordance with 10 C.F.R. 71.5(a) and (b).

Section 602. Escort requirements.

All shipments of spent nuclear fuel to, within, through or across the boundaries of the Commonwealth shall be escorted by the Pennsylvania State Police.

Section 603. Authorization.

Spent nuclear fuel shipments shall be authorized subject to the Commonwealth's authority to delay individual highway and rail shipments due to specific holiday or safety considerations including, but not limited to, weather, highway or rail conditions.

Section 604. Radiation Transportation Emergency Response Plan.

(a) Planning.—The agency shall develop the Transportation Emergency Response Plan to respond to accidents involving the shipment of spent fuel. The plan shall:

(1) Incorporate local agencies and volunteer organizations along the preprescribed routes for transport of spent fuel.

(2) Incorporate any Commonwealth agency responsible for protection of the health and safety of the public as necessary and approved by the specific agency.

(b) Funding of State and local agencies.—Funds received under section 402(c)(4) shall be used to train and equip State and local agencies and volunteer organizations in accordance with regulations adopted by the council to implement the plan.

CHAPTER 7 MISCELLANEOUS PROVISIONS

Section 701. Transition provisions.

All registrations, licenses and orders issued and regulations promulgated under the act of January 28, 1966 (1965 P.L.1625, No.578), known as The Atomic Energy Development and Radiation Control Act, shall remain in full force unless and until modified, amended, suspended or revoked and all appropriations, allocations, personnel, agreements, leases, claims, demands and causes of action of any nature and equipment, files, records, real estate, personal property and all other materials owned, used, employed or expended in connection with that act by the Department of Commerce are hereby transferred to the Department of Environmental Resources.

Section 702. Repeals.

The following acts are repealed:

Act of January 28, 1966 (1965 P.L.1625, No.578), known as The Atomic Energy Development and Radiation Control Act.

Act of July 20, 1979 (P.L.151, No.49), known as the Environmental Radiation Protection Act.

Section 703. Conveyance.

(a) **Authority.**—The Department of Environmental Resources, with the approval of the Governor, is hereby authorized and directed on behalf of the Commonwealth to convey ownership in the building named the Carl A. White Acid Mine Drainage Treatment Plant, situated in Washington Township, Indiana County, Pennsylvania, hereinafter referred to as the plant, to the County of Indiana, Pennsylvania for the following purposes: The County of Indiana, or its designee, shall utilize all or part of the plant, which is currently shut down, to treat brines produced from oil and gas wells, with the treatment of brines produced from oil and gas wells in the Commonwealth to be given priority in all respects; and, if and when directed by the department, shall utilize a maximum of 50% of the plant to treat abandoned mine acid discharge flowing in the Crooked Creek Watershed. If and when the department shall deem treatment of such abandoned mine acid discharge to be feasible, it shall notify the County of Indiana, or its designee, of the quantity of such discharges to be treated and the required quality of the effluent; provided, however, that such treatment shall not require the utilization of more than 50% of the plant.

(b) **Reversion.**—If, for any reason whatsoever, the County of Indiana, or its designee, shall discontinue the utilization of the Carl A. White Acid Mine Drainage Treatment Plant for the treatment of oil and gas well brines, or shall fail to treat any abandoned mine acid discharges which the department has determined to be necessary and feasible to treat, then, and in that event, ownership and possession of the plant shall revert to the department, and the department shall have the option of continuing the operation of the plant for the treatment of abandoned mine acid discharge or of dismantling the plant. If, in the event of such reverter, the department shall elect to continue the operation of the plant for the treatment of abandoned mine acid discharge, it shall so notify the County of Indiana, or its designee, and the plant shall be returned to the department in the same condition that it was in when transferred to the county. The county, or its designee, shall bear any costs for returning the plant to said condition.

(c) **Approval and execution.**—The agreement of ownership shall be approved as provided by law and shall be executed by the Secretary of Environmental Resources in the name of the Commonwealth of Pennsylvania.

SESSION OF 1984

Act 1984-147 703

Section 704. Effective date.

This act shall take effect in 15 days.

APPROVED—The 10th day of July, A. D. 1984.

DICK THORNBURGH

No. 1985-120

AN ACT

SB 417

Providing for an Appalachian States Low-Level Radioactive Waste Compact.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Agreement.

The Commonwealth of Pennsylvania hereby solemnly covenants and agrees with the state of West Virginia, any eligible states as defined in Article 5(A) of this compact and the United States of America, upon the enactment of concurrent legislation by the Congress of the United States and by the respective state legislatures, as follows:

APPALACHIAN STATES LOW-LEVEL
RADIOACTIVE WASTE COMPACT

Preamble

Whereas, The United States Congress, by enacting the Low-Level Radioactive Waste Policy Act (42 U.S.C. §§ 2021b - 2021d) has encouraged the use of interstate compacts to provide for the establishment and operation of facilities for regional management of low-level radioactive waste;

Whereas, Under section 4(a)(1)(A) of the Low-Level Radioactive Waste Policy Act (42 U.S.C. § 2021d(a)(1)(A)), each state is responsible for providing for the capacity for disposal of low-level radioactive waste generated within its borders;

Whereas, To promote the health, safety and welfare of residents within, the Commonwealth of Pennsylvania and other eligible states as defined in Article 5(A) of this compact shall enter into a compact for the regional management and disposal of low-level radioactive waste.

Now, therefore, the Commonwealth of Pennsylvania and the state of West Virginia and other eligible states hereby agree to enter into the Appalachian States Low-Level Radioactive Waste Compact.

Article 1
Definitions

As used in this compact, unless the context clearly indicates otherwise:

(a) "Broker" means any intermediate person who handles, treats, processes, stores, packages, ships or otherwise has responsibility for or possesses low-level waste obtained from a generator.

(b) "Carrier" means a person who transports low-level waste to a regional facility.

(c) "Commission" means the Appalachian States Low-Level Radioactive Waste Commission.

(d) "Disposal" means the isolation of low-level waste from the biosphere.

(e) "Facility" means any real or personal property within the region, and improvements thereof or thereon, and any and all plant structures, machinery and equipment acquired, constructed, operated or maintained for the management or disposal of low-level waste.

(f) "Generate" means to produce low-level waste requiring disposal.

(g) "Generator" means a person whose activity results in the production of low-level waste requiring disposal.

(h) "Hazardous life" means the time required for radioactive materials to decay to safe levels, as defined by the time period for the concentration of radioactive materials within a given container or package to decay to maximum permissible concentrations as defined by Federal law or by standards to be set by a host state, whichever is more restrictive.

(i) "Host state" means Pennsylvania or other party state so designated by the Commission in accordance with Article 3 of this compact.

(j) "Institutional control period" means the time of the continued observation, monitoring and care of the regional facility following transfer of control from the operator to the custodial agency.

(k) "Low-level waste" means radioactive waste that:

(1) is neither high-level waste or transuranic waste, nor spent nuclear fuel, nor by-product material as defined in Section 11(e)(2) of the Atomic Energy Act of 1954 as amended; and

(2) is classified by the Federal Government as low-level waste, consistent with existing law; but does not include waste generated as a result of atomic energy defense activities of the Federal Government, as defined in Public Law 96-573, or Federal research and development activities.

(l) "Management" means the reduction, collection, consolidation, storage, packaging or treatment of low-level waste.

(m) "Operator" means a person who operates a regional facility.

(n) "Party state" means any state that has become a party in accordance with Article 5 of this compact.

(o) "Person" means an individual, corporation, partnership or other legal entity, whether public or private.

(p) "Region" means the combined geographical area within the boundaries of the party states.

(q) "Regional facility" means a facility within any party state which has been approved by the Commission for the disposal of low-level waste.

(r) "Shallow land burial" means the disposal of low-level radioactive waste directly in subsurface trenches without additional confinement in engineered structures or by proper packaging in containers as determined by the law of the host state.

(s) "Transuranic waste" means low-level waste containing radionuclides with an atomic number greater than 92 which are excluded from shallow-land burial by the Federal Government.

Article 2
The Commission

(A) Creation and Organization.

(1) Creation - There is hereby created the Appalachian States Low-Level Radioactive Waste Commission. The Commission is hereby created as a body corporate and politic, with succession for the duration of this compact, as an agency and instrumentality of the governments of the respective signatory parties, but separate and distinct from the respective signatory party states. The Commission shall have central offices located in Pennsylvania.

(2) Commission Membership - The Commission shall consist of two voting members from each party state to be appointed according to the laws of each party state and two additional voting members from each host state to be appointed according to the laws of each host state. Upon selection of the site of the regional facility, an additional voting member shall be appointed to the Commission who shall be a resident of the county or municipality where the facility is to be located. The appointing authority of each party state shall notify the Commission in writing of the identities of the members and of any alternates. An alternate may vote and act in the member's absence. No member shall have a financial interest in any industry which generates low-level radioactive waste, any low-level radioactive waste regional facility or any related industry for the duration of the member's term. No more than one-half the members and alternates from any party state shall have been employed by or be employed by a low-level waste generator or related industry upon appointment to or during their tenure of office; provided, that no member shall have been employed by or be employed by a regional facility operator. No member or alternate from any party state shall accept employment from any regional facility operator or brokers for at least three years after leaving office.

(3) Compensation - Members of the Commission and alternates shall serve without compensation from the Commission but may be reimbursed for necessary expenses incurred in and incident to the performance of their duties.

(4) Voting Power - Each Commission member is entitled to one vote. Unless otherwise provided in this compact, affirmative votes by a majority of a host state's members are necessary for the Commission to take any action related to the regional facility and the disposal and management of low-level waste within that host state.

(5) Organization and Procedure -

(a) The Commission shall provide for its own organization and procedures and shall adopt by-laws not inconsistent with this compact and any rules and regulations necessary to implement this compact. It shall meet at least once a year in the county selected to host a regional facility and shall elect a chairman and vice chairman from among its members. In the absence of the chairman, the vice chairman shall serve.

(b) All meetings of the Commission shall be open to the public with at least 14 days' advance notice, except that the chairman may convene an emergency meeting with less advance notice. Each municipality and county selected to host a regional facility shall be specifically notified in advance of all Commission meetings. All meetings of the Commission shall be conducted in a manner that substantially conforms to the Administrative Procedure Act (5 U.S.C. Ch.5, Subch.II, and Ch.7). The Commission may, by a two-thirds vote, including approval of a majority of each host state's Commission members, hold an Executive Session closed to the public for the purpose of: considering or discussing legally privileged or proprietary information; to consider dismissal, disciplining of or hearing complaints or charges brought against an employee or other public agent unless such person requests such public hearing; or to consult with its attorney regarding information or strategy in connection with specific litigation. The reason for the Executive Session must be announced at least 14 days prior to the Executive Session, except that the chairman may convene an emergency meeting with less advance notice, in which case the reason for the Executive Session must be announced at the open meeting immediately subsequent to the Executive Session. All action taken in violation of this open meeting provision shall be null and void.

(c) Detailed written minutes shall be kept of all meetings of the Commission. All decisions, files, records and data of the Commission, except for information privileged against introduction in judicial proceedings, personnel records and minutes of a properly convened Executive Session, shall be open to public inspection subject to a procedure that substantially conforms to the Freedom of Information Act (Public Law 89-554, 5 U.S.C. § 552) and applicable Pennsylvania law and may be copied upon request and payment of fees which shall be no higher than necessary to recover copying costs.

(d) The Commission shall select an appropriate staff, including an Executive Director, to carry out the duties and functions assigned by the Commission. Notwithstanding any other provision of law, the Commission may hire and/or retain its own legal counsel.

(e) Any person aggrieved by a final decision of the Commission which adversely affects the legal rights, duties or privileges of such person may petition a court of competent jurisdiction, within 60 days after the Commission's final decision, to obtain judicial review of said final decisions.

(f) Liabilities of the Commission shall not be deemed liabilities of the party states. Members of the Commission shall not be personally liable for actions taken in their official capacity.

(B) Powers and Duties.

The Commission:

(a) Shall conduct research and establish regulations to promote a reasonable reduction of volume and curie content of low-level wastes generated in the region. The regulations shall be reviewed and, if necessary, revised by the Commission at least annually.

(b) Shall ensure, to the extent authorized by Federal law, that low-level wastes are safely disposed of within the region except that the Commission shall have no power or authority to license, regulate or otherwise develop a regional facility, such powers and authority being reserved for the host state(s) as permitted under the law.

(c) Shall designate as "host states" any party state which generates 25 percent or more of Pennsylvania's volume or total curie content of low-level waste generated based on a comparison of averages over three successive years, as determined by the Commission. This determination shall be based on volume or total curie content, whichever is greater.

(d) Shall ensure, to the extent authorized by Federal law, that low-level waste packages brought into the regional facility for disposal conform to applicable state and Federal regulations. Low-level waste brokers or generators who violate these regulations will be subject to a fine or other penalty imposed by the Commission, including restricted access to a regional facility. The Commission may impose such fines and/or penalties in addition to any other penalty levied by the party states pursuant to Article 4(D).

(e) Shall establish such advisory committees as it deems necessary for the purpose of advising the Commission on matters pertaining to the management and disposal of low-level waste.

(f) May contract to accomplish its duties and effectuate its powers subject to projected available resources. No contract made by the Commission shall bind a party state.

(g) Shall prepare contingency plans for management and disposal of low-level waste in the event any regional facility should be closed or otherwise unavailable.

(h) Shall examine all records of operators of regional facilities pertaining to operating costs, profits or the assessment or collection of any charge, fee or surcharge and may make recommendations to the host state(s) which shall review the recommendations in accordance with its (their) own sovereign laws.

(i) Shall have the power to sue and be sued subject to Article 2(A)(5)(e) and may seek to intervene in any administrative or judicial proceeding.

(j) Shall assemble and make available, to the party states and to the public, information concerning low-level waste management and disposal needs, technologies and problems.

(k) Shall keep current and annual inventories of all generators by name and quantity of low-level waste generated within the region, based upon information provided by the party states. Inventory information shall include both volume in cubic feet and total curie content of the low-level waste and all available information on chemical composition and toxicity of such wastes.

(l) Shall keep an inventory of all regional facilities and specialized facilities, including, but not necessarily restricted to, information on their size, capacity and location, as well as specific wastes capable of being managed, and the projected useful life of each regional facility.

(m) Shall make and publish an annual report to the governors of the signatory party states and to the public detailing its programs, operations and finances, including copies of the annual budget and the independent audit required by this compact.

(n) Notwithstanding any other provision of this compact to the contrary, may, with the unanimous approval of the Commission members of the host state(s), enter into temporary agreements with non-party states or other regional boards for the emergency disposal of low-level waste at the regional facility, if so authorized by law(s) of the host state(s), or other disposal facilities located in states that are not parties to this agreement.

(o) Shall promulgate regulations, pursuant to host state law, to specifically govern and define exactly what would constitute an emergency situation and exactly what restrictions and limitations would be placed on temporary agreements.

(p) Shall not accept any donations, grants, equipment, supplies, materials or services, conditional or otherwise, from any source, except from any Federal agency and from party states which are certified as being legal and proper under the laws of the donating party state.

(C) Budget and Operation.

(1) Fiscal Year - The Commission shall establish a fiscal year which conforms to the fiscal year of the Commonwealth of Pennsylvania.

(2) Current Expense Budget - Upon legislative enactment of this compact by two party states and each year until the regional facility becomes available, the Commission shall adopt a current expense budget for its fiscal year. The budget shall include the Commission's estimated expenses for administration. Such expenses shall be allocated to the party states according to the following formula:

Each designated initial host state will be allocated costs equal to twice the costs of the other party states, but such costs will not exceed \$200,000.

Each remaining party state will be allocated a cost of one half the cost of the initial host state, but such costs will not exceed \$100,000.

The party states will include the amounts allocated above in their respective budgets, subject to such review and approval as may be required by their respective budgetary processes. Such amounts shall be due and payable to the Commission in quarterly installments during the fiscal year.

(3) Annual Budget Request - For continued funding of its activities, the Commission shall submit an annual budget request to each party state for funding, based upon the percentage of the region's waste generated in each state in the region, as reported in the latest available annual inventory required under Article 2(B)(k). The percentage of waste shall be based on volume of waste or total curie content as determined by the Commission.

(4) Annual Report to Include Budget - The Commission shall prepare and include in the annual report a budget showing anticipated receipts and disbursements for the ensuing year.

(5) Annual Independent Audit -

(a) As soon as practicable after the closing of the fiscal year, an audit shall be made of the financial accounts of the Commission. The audit shall be made by qualified certified public accountants selected by the Commission, who have no personal direct or indirect interest in the financial affairs of the Commission or any of its officers or employees. The report of audit shall be prepared in accordance with accepted accounting practices and shall be filed with the chairman and such other officers as the Commission shall direct. Copies of the report shall be distributed to each Commission member and shall be made available for public distribution.

(b) Each signatory party, by its duly authorized officers, shall be entitled to examine and audit at any time all of the books, documents, records, files and accounts and all other papers, things or property of the Commission. The representatives of the signatory parties shall have access to all books, documents, records, accounts, reports, files and all other papers, things or property belonging to or in use by the Commission and necessary to facilitate the audit; and they shall be afforded full facilities for verifying transactions with the balances or securities held by depositaries, fiscal agents and custodians.

Article 3

Rights, Responsibilities and
Obligations of Party States

(A) Regional Facilities.

There shall be regional facilities sufficient to dispose of the low-level waste generated within the region. Each regional facility shall be capable of disposing of such low-level waste but in the form(s) required by regulations or license conditions. Specialized facilities for particular types of low-level waste management, reduction or treatment may not be developed in any party state unless they are in accordance with the laws and regulations of such state and applicable Federal laws and regulations.

(B) Equal Access to Regional Facilities.

Each party state shall have equal access as other party states to regional facilities located within the region and accepting low-level waste, provided, however, that the host state may close the regional facility located within its borders when necessary for public health and safety. However, a host state shall send notification to the Commission in writing within three (3) days of its action and shall, within thirty (30) working days, provide in writing the reasons for the closing.

(C) Initial Host State.

Pennsylvania and party states which generated 25 percent or more of the volume or curies of low-level waste generated by Pennsylvania, based on a comparison of averages over the three years 1982 through 1984, are designated as "initial host states" and are required to develop and host low-level waste sites as regional facilities. The percentage of waste from each state shall be determined by cubic foot volume or total curie content, whichever is greater.

(D) Exemption From Being Initial Host State.

Party states which generated less than 25 percent of the volume or curies of low-level waste generated by Pennsylvania, based on a comparison of averages over the years 1982 through 1984, shall be exempt from initial host state responsibilities. These states shall continue to be exempt as long as they generate less than the 25 percent threshold over successive 3-year periods. Once a state generates an average of 25 percent or more of the volume or curies generated by Pennsylvania over a successive 3-year period, it shall be designated as a "host state" for a 30-year period by the Commission and shall immediately initiate development of a regional facility to be operational within five years. Such host state shall be prepared to accept at its regional facility low-level waste at least equal to that generated in the state. With Commission approval, any party state may volunteer to host a regional facility. The percentage of waste from each state shall be determined by either a cubic foot volume or total curie content, whichever is greater.

(E) Useful Life of Regional Facilities.

Pennsylvania and other host states are obligated to develop regional facilities for the duration of this compact. All regional facilities shall be designed for at least a 30-year useful life. At the end of the facility's life, normal closure and maintenance procedures shall be initiated in accordance with the applicable requirements of the host state and the Federal Government. Each host state's obligation for operating regional facilities shall remain as long as the state continues to produce over a 3-year period 25 percent or more of the volume or curies of low-level waste generated by Pennsylvania.

(F) Duties of Host State.

Each host state shall:

(a) Cause a regional facility to be sited and developed on a timely basis.

(b) Ensure by law, consistent with applicable state and Federal law, the protection and preservation of public health, safety and environmental quality in the siting, design, development, licensure or other regulation, operation, closure, decommissioning, long-term care and the institutional control period of the regional facility within the state. To the extent authorized by Federal law, a host state may adopt more stringent laws, rules or regulations than required by Federal law.

(c) Ensure and maintain a manifest system which documents all waste-related activities of generators, brokers, carriers and related activities of generators, brokers, carriers and operators, and establish the chain of custody of waste from its initial generation to the end of its hazardous life. Copies of all such manifests shall be submitted to the Commission on a timely basis.

(d) Ensure that charges for disposal of low-level waste at the regional facility are sufficient to fully fund the safe disposal and perpetual care of the regional facility and that charges are assessed without discrimination as to the party state of origin.

(e) Submit an annual report to the Commission on the status of the regional facility which contains projections of the anticipated future capacity.

(f) Notify the Commission immediately if any exigency arises requiring the possible temporary or permanent closure of a regional facility within the state at a time earlier than was projected in the state's most recent annual report to the Commission.

(g) Require that the institutional control period of any disposal facility be at least as long as the hazardous life, as defined in Article 1(h), of the radioactive materials that are disposed at that facility.

(h) Prohibit the use of any shallow land burial, as defined in Article 1(r), and develop alternative means for treatment, storage and disposal of low-level waste.

(i) Establish by law, to the extent not prohibited by Federal law, requirements for financial responsibility, including, but not limited to:

(i) Requirements for the purchase and maintenance of adequate insurance by generators, brokers, carriers and operators of the regional facility;

(ii) Requirements for the establishment of a long-term care fund to be funded by a fee placed on generators to pay for preventative or corrective measures of low-level waste to the regional facility; and

(iii) Any further financial responsibility requirements that shall be submitted by generators, brokers, carriers and operators as deemed necessary by the host state.

(G) Duties of Party State.

Each party state:

(a) Shall appropriate its portion of the Commission's initial and annual budgets as set out in Article 2(C)(2) and (3).

(b) To the extent authorized by Federal law, shall develop and enforce procedures requiring low-level waste shipments originating within its borders and destined for a regional facility to conform to volume reduction, packaging and transportation requirements and regulations as well as any other requirements specified by the regional facility. Such procedures shall include, but are not limited to:

(i) Periodic inspections of packaging and shipping practices;

(ii) Periodic inspections of low-level waste containers while in custody of carriers; and

(iii) Appropriate enforcement actions with respect to violations.

(c) To the extent authorized by Federal law, shall, after receiving notification from a host state or other person that a person in a party state has violated volume reduction, packaging, shipping or transportation requirements or regulations, take appropriate action to ensure that violations do not recur. Appropriate action shall include, but is not limited to, the requirement that a bond be posted by the violator to pay the cost of repackaging at the regional facility and the requirement that future shipments be inspected. Appropriate action may also include suspension of the violator's use of the regional facility. Should such suspension be imposed, the suspension shall remain in effect until such time as the violator has, to the satisfaction of the party state imposing such suspension, complied with the appropriate requirements or regula-

tions upon which the suspension was based and has taken appropriate action to ensure that such violation or violations do not recur.

(d) Shall maintain a registry of all generators and quantities generated within the state.

(H) Liability.

In the event of liability arising from the operation of any regional facility and during and after closure of that facility, each party state shall share in that liability in an amount equal to that state's share of the region's low-level waste disposed of at the facility. If such liability arises from negligence, malfeasance or neglect on the part of a host state or any party state, then any other host or party state(s) may make any claim allowable under law for that negligence, malfeasance or neglect. If such liability arises from a particular waste shipment or shipments to, or quantity of waste or condition at, the regional facility, then any host or party state may make any claim allowable under law for such liability. The percentage of waste shall be based on volume of waste or total curie content.

(I) Failure of Party State to Fulfill Obligations.

A party state which fails to fulfill its obligations, including timely funding of the Commission, may have its privileges under the Compact suspended or its membership in the Compact revoked by the Commission and be subject to any other legal and equitable remedies available to the party states.

Article 4

Prohibited Acts and Penalties

(A) Prohibition.

It shall be unlawful for any person to dispose of low-level waste within the region except at a regional facility unless authorized by the Commission.

(B) Waste Disposed of Within Region.

After establishment of the regional facility(s), it shall be unlawful for any person to dispose of any low-level waste within the region unless the waste was generated within the region or unless authorized to do so both by the Commission and by law of the host state in which said disposal takes place. For the purposes of this compact, waste generated within the region excludes radioactive material shipped from outside the party states to a waste management facility within the region. In determining whether to grant such authorization, the factors to be considered by the Commission shall include, but not be limited to, the following:

(a) The impact on the health, safety and environmental quality of the citizens of the party states;

(b) The impact of importing waste on the available capacity and projected life of the regional facility;

(c) The availability of a regional facility appropriate for the safe disposal of the type of low-level waste involved.

(C) Waste Generated Within Region.

Any and all low-level waste generated within the region shall be disposed of at a regional facility, except for specific cases agreed upon by the Commission, with the affirmative votes by a majority of the Commission members of the host state(s) affected by the decision.

(D) Liability.

Generators, brokers and carriers of wastes, and owners and operators of sites shall be liable for their acts, omissions, conduct or relationships in accordance with all laws relating thereto. The party states shall impose a fine for any violation in an amount equal to the present and future costs associated with correcting any harm caused by the violation and shall assess punitive fines or penalties if it is deemed necessary. In addition, the host state shall bar any person who violates host state or Federal regulations from using the regional facility until that person demonstrates to the satisfaction of the host state the ability and willingness to comply with the law.

(E) Conflict of Interest.**(1) Prohibitions -**

No commissioner, officer or employee shall:

(a) Be financially interested, either directly or indirectly, in a contract, sale, purchase, lease or transfer of real or personal property to which the Commission is a party.

(b) Solicit or accept money or any other thing of value in addition to the expenses paid to him by the Commission for services performed within the scope of his official duties.

(c) Offer money or anything of value for or in consideration of obtaining an appointment, promotion or privilege in his employment with the Commission.

(2) Forfeiture of Office or Employment -

Any officer or employee who shall willfully violate any of the provisions of this section shall forfeit his office or employment.

(3) Agreement Void -

Any contract or agreement knowingly made in contravention of this section is void.

(4) Criminal and Civil Sanctions -

Officers and employees of the Commission shall be subject, in addition to the provisions of this section, to such criminal and civil sanctions for misconduct in office as may be imposed by Federal law and the law of the signatory state in which such misconduct occurs.

Article 5**Eligibility, Entry Into Effect,
Congressional Consent, Withdrawal****(A) Eligibility.**

Only the States of Pennsylvania, West Virginia, Delaware and Maryland are eligible to become parties to this compact.

(B) Entry into Effect.

An eligible state may become a party state by legislative enactment of this compact or by executive order of the governor adopting this compact; provided, however, a state becoming a party state by executive order shall cease to be a party state upon adjournment of the first general session of its legislature convened thereafter, unless the legislature shall have enacted this compact before such adjournment.

(C) Congressional Consent.

This compact shall take effect when it has been enacted by the legislatures of Pennsylvania and one or more eligible states. However, Article 4(B) and (C) shall not take effect until Congress has consented to this compact. Every fifth year after such consent has been given, Congress may withdraw consent.

(D) Withdrawal.

A party state may withdraw from the compact by repealing the enactment of this compact, but no such withdrawal shall become effective until two years after enactment of the repealing legislation. If the withdrawing state is a host state, any regional facility in that state shall remain available to receive low-level waste generated within the region until five years after the effective date of the withdrawal.

Article 6
Construction and Severability

(A) Construction.

The provisions of this compact shall be broadly construed to carry out the purposes of the compact, but the sovereign powers of a party state shall not unnecessarily be infringed.

(B) Severability.

If any part or application of this compact is held invalid, the remainder, or its application to other situations or persons, shall not be affected.

Section 2. Repealer.

All acts and parts of acts are repealed insofar as they are inconsistent with this act.

Section 3. Effectuation by Governor.

The Governor is authorized to take such action as may be necessary and proper in his discretion to effectuate the compact and the initial organization and operation of the Commission.

Section 4. Budgetary processes.

The term "budgetary processes" in Article 2(C)(2) of the compact shall be construed to include the presentation by the Commission of its proposed budget for each fiscal period to the Secretary of the Budget, in accordance with the rules and practices of the Commonwealth governing administrative agencies, for study and consideration by the Secretary of the Budget, and each such budget shall include a statement of moneys required to administer, manage and support the Commission during the ensuing fiscal period. The statement shall include any request for appropriation of funds by the Commonwealth and shall be accompanied by a tabulation of similar requests which the Commission makes or expects to make to each other signatory party, and the formula or factors upon which such respective requests are based. Further, the term "budgetary processes" as applied to the Commonwealth shall not be considered complied with until it includes appropriation by the General Assembly and the signing of the appropriation into law by the Governor.

SESSION OF 1985

Act 1985-120 551

Section 5. Effective date.

This act shall take effect immediately.

APPROVED—The 22nd day of December, A. D. 1985.

DICK THORNBURGH

No. 1986-62

AN ACT

HB 1934

Providing for a radon gas demonstration project; providing for a low-interest loan program for homes contaminated by radon gas infiltration; providing further duties of the Department of Environmental Resources and the Pennsylvania Housing Finance Agency; and making an appropriation.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Short title.

This act shall be known and may be cited as the Radon Gas Demonstration Project and Home Improvement Loan Act.

Section 2. Radon Gas Demonstration Project.

(a) The Department of Environmental Resources shall have the power and its duty shall be to develop and implement, in cooperation with the United States Government and private industry, methods of remedial action to reduce unsafe levels of naturally occurring radon gas in residential buildings. The department may enter into contracts with builders, remodelers and other private contractors to assist the department in developing experimental or prototypic systems of remedial action. Such systems shall be installed or incorporated into occupied residential buildings with the permission of the owners. Upon completion, any and all materials so incorporated shall become fixtures of the property and shall not be removed without the consent of the property owner.

(b) The department shall establish minimum standards for materials and craftsmanship of contractors participating in this project. In addition, the department shall advise homeowners, in areas known to be affected by high radon concentrations, of ways to avoid unscrupulous or unqualified contractors.

Section 3. Low-interest home improvement loans.

(a) The Pennsylvania Housing Finance Agency is hereby authorized to establish a low-interest loan program to assist persons whose residences have been infiltrated by dangerous levels of radon gas to finance home improvements designed to either prevent such infiltration or avoid dangerous concentrations of radon gas from accumulating.

(b) The Pennsylvania Housing Finance Agency shall administer a low-interest loan program pursuant to the provisions of Article IV-B of the act of December 3, 1959 (P.L.1688, No.621), known as the Housing Finance Agency Law.

(c) The Department of Environmental Resources shall establish minimum standards for materials and craftsmanship of contractors providing home improvements financed pursuant to this section and may assist the Pennsylvania Housing Finance Agency in the administration of the low-interest loan program.

Section 4. Sovereign immunity.

(a) The Department of Environmental Resources and the Pennsylvania Housing Finance Agency, and all employees, officers, officials and board members thereof, shall enjoy sovereign and official immunity from suit as provided by 1 Pa.C.S. § 2310 (relating to sovereign immunity reaffirmed; specific waiver) for all actions taken pursuant to this act, and the limited waiver of sovereign immunity provided by 42 Pa.C.S. Ch. 85 (relating to matters affecting government units) shall not apply to actions taken within the scope of this act.

(b) Notwithstanding any other law to the contrary, the Pennsylvania Housing Finance Agency is a Commonwealth agency of the Commonwealth for all purposes, including, but not limited to, the assertion of sovereign immunity as provided by 1 Pa.C.S. § 2310 and, except as provided by subsection (a), the limited waiver of sovereign immunity as provided by 42 Pa.C.S. Ch. 85.

Section 5. Appropriation.

The sum of \$1,000,000, or as much thereof as may be necessary, is hereby appropriated to the Department of Environmental Resources for the demonstration project authorized in section 2. Any funds remaining unexpended, unencumbered and uncommitted on June 30, 1987, shall lapse.

Section 6. Effective date.

(a) Section 5 of this act shall take effect July 1, 1986.

(b) The remainder of this act shall take effect immediately.

APPROVED—The 16th day of May, A. D. 1986.

DICK THORNBURGH

No. 1987-43

AN ACT

SB 137

Providing for certification of persons who perform radon testing and radon remediation; providing for the confidentiality of certain data; imposing penalties; and making an appropriation.

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- Section 14. Penalties.
- Section 15. Effective date.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Short title.

This act shall be known and may be cited as the Radon Certification Act.

Section 2. Legislative findings and intent.

(a) Findings.—The General Assembly finds and declares as follows:

- (1) Radon levels in public and private buildings can present a significant health risk to the occupants.
- (2) Property owners in affected areas should have their residences and other buildings tested for radon levels.
- (3) Property owners do contract for measures to test and to reduce levels in specific buildings.
- (4) Private consultants and firms do perform radon testing or remedial work or radon testing and remedial work.
- (5) There is a need to assure property owners that the consultants and firms are qualified to perform the services.

(b) Intent.—It is the intention of the General Assembly and the purpose of this act to protect property owners from unqualified or unscrupulous consultants and firms by requiring the Department of Environmental Resources

to establish and carry out a program of certification of persons who perform radon progeny testing or carry out remedial radon measures.

Section 3. Definitions.

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Department." The Department of Environmental Resources of the Commonwealth.

Section 4. Program for certification of persons who test for radon.

The department shall, within 90 days of the effective date of this act, submit proposed regulations to establish a program for the certification of persons who test for the presence of radon gas and radon progeny in buildings and on building lots.

Section 5. Program for certification of persons who mitigate the presence of radon.

The department shall, within 90 days of the effective date of this act, submit proposed regulations to establish a program for the certification of persons who mitigate, and safeguard buildings from, the presence of radon gas and radon progeny.

Section 6. Certification required for testing and mitigation.

(a) General rule.—Beginning 60 days after the establishment of the interim certification program by the department under section 11, no person who is not certified under section 11, or who is not certified under section 4 or 5 after certification programs are established under these sections, shall test for, mitigate or safeguard a building from the presence of radon gas and radon progeny.

(b) Exception.—Subsection (a) shall not apply to either of the following:

- (1) A person performing testing or mitigation on a building which the person owns.
- (2) A builder utilizing preventative or safeguarding measures in new construction.

Section 7. Disclosure of information to department.

A person certified under sections 4, 5 and 11 to provide testing or mitigation services shall, within 45 days of the date the services are provided, disclose to the department the address or location of the building, the name of the owner of the building where the services were provided and the results of any tests performed.

Section 8. Fees.

The department shall, by regulation, establish a fee schedule to cover the costs of the certification programs established under sections 4, 5 and 11. The fees collected shall be placed in the Radiation Protection Fund established under section 403 of the act of July 10, 1984 (P.L.688, No.147), known as the Radiation Protection Act.

Section 9. Confidentiality of data.

Except for use in conducting legitimate scientific studies, as determined by the department, data relating to individuals and data relating to radon gas and radon progeny contamination at nonpublic properties, including resi-

dential dwellings, gathered under this act shall be considered confidential by the department. The department shall not release the data in its possession to anyone other than the owner of the property.

Section 10. Employment of trained persons.

The department is authorized to employ persons with training necessary to implement the provisions of this act.

Section 11. Interim certification.

The department shall, at the time of submission of proposed regulations, establish an interim certification program based upon the proposed regulations. All persons subject to the proposed regulations shall apply to the department for interim certification until the permanent program is implemented. The department shall use the proposed regulations as guidance for interim certification.

Section 12. Additional powers of department.

(a) **Radiation protection.**—In addition to the powers and duties provided for in this act, the department shall have the powers conferred and duties imposed under applicable provisions of the act of July 10, 1984 (P.L.688, No.147), known as the Radiation Protection Act and regulations promulgated under that act.

(b) **Certification exemption.**—The department shall be exempt from the requirements for certification as provided under sections 4, 5 and 6.

Section 13. Rules and regulations.

The department shall adopt rules and regulations to administer and enforce this act. The rules and regulations shall include, but not be limited to, provisions relating to the following subjects:

- (1) Qualifications and minimum experience requirements.
- (2) Proficiency testing.
- (3) Periodic recertification.
- (4) Measures for decertification.
- (5) Truth in advertising requirements.

Section 14. Penalties.

A person who violates section 6 of this act, or any rule or regulation adopted under section 6, commits a misdemeanor of the third degree. Any person who fails to disclose the information required under section 7 commits a summary offense.

Section 15. Effective date.

This act shall take effect immediately.

APPROVED—The 9th day of July, A. D. 1987.

ROBERT P. CASEY

No. 1988-12

AN ACT

SB 948

Providing for low-level radioactive waste disposal; further providing for powers and duties of the Department of Environmental Resources and the Environmental Quality Board; providing for the siting of low-level radioactive waste disposal facilities and for the licensing of operators thereof; establishing certain funds and accounts for the benefit of host municipalities and the general public; establishing the Low-Level Waste Advisory Committee and providing for its powers and duties; providing for membership on the Appalachian States Low-Level Radioactive Waste Commission; requiring certain financial assurances; providing enforcement procedures; providing penalties; making repeals; and making appropriations.

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Section 906. Effective date.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

CHAPTER 1
GENERAL PROVISIONS

Section 101. Short title.

This act shall be known and may be cited as the Low-Level Radioactive Waste Disposal Act.

Section 102. Legislative findings.

The General Assembly hereby determines, declares and finds that low-level radioactive wastes are generated within this Commonwealth; that these wastes must be isolated for the full hazardous life of the wastes in order to protect the public health and safety; that the Low-Level Radioactive Waste Policy Amendments Act of 1985 requires each state to be responsible for providing for the availability of capacity for disposal of low-level wastes generated within its borders; that shallow land burial is prohibited under the terms of the Appalachian States Low-Level Radioactive Waste Compact; that the illegal disposal of low-level radioactive waste poses severe risks to the health and safety of the public and the protection of the environment; that low-level radioactive waste disposal carried out in an environmentally

sound manner to protect the health and safety of the public is in the public interest; and acknowledging that the Department of Environmental Resources shall be the Commonwealth agency with these responsibilities. It is the purpose of this act to:

(1) Implement Pennsylvania's duties and responsibilities arising under the Appalachian States Low-Level Radioactive Waste Compact.

(2) Establish and maintain, to the extent allowable under Federal law, a comprehensive and pervasive low-level waste disposal management, licensing and regulatory program in the Department of Environmental Resources for which all costs shall be borne by the low-level waste generators, brokers, carriers and the regional facility operator regulated by this act.

(3) To the extent allowed under Federal law, require the minimization of the amount of low-level waste generated and the reduction of the volume and toxicity of low-level waste requiring disposal.

(4) Protect the public health, safety and welfare, and the environment from the short- and long-term dangers of low-level waste and its transportation, management and disposal.

(5) Establish an open public process to locate a regional facility in the Commonwealth, to determine the operator and disposal technology and to license the regional disposal facility.

(6) Provide for benefits and guarantees for communities affected by the establishment, operation and presence of a low-level radioactive waste disposal facility.

(7) Assure the participation of the public and of elected and appointed officials at all levels of government in the decisionmaking process, create a Public Advisory Committee and assist in public education efforts related to low-level waste disposal.

(8) Prohibit shallow land burial of low-level radioactive waste; except that the department shall develop standards by regulation for the onsite handling and disposal of naturally occurring radioactive materials, ores and their waste products.

(9) Provide a comprehensive and effective strategy for the siting of commercial low-level waste compactors and other waste management facilities, and to ensure the proper transportation, disposal and storage of low-level radioactive waste.

(10) Assure that the low-level radioactive waste facility will be above grade of the land, unless other designs provide significant improvement in recoverability, monitoring, public health and environmental protection.

(11) Prohibit the commercial incineration of radioactive wastes.

(12) Assure that waste disposed of at the regional facility does not include radioactive waste originating outside the Appalachian Compact states except as otherwise provided in this act.

(13) Provide that no low-level radioactive waste shall be disposed of at any disposal facility not licensed to accept low-level radioactive waste or at any municipal landfill or commercial incinerator.

Section 103. Definitions.

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Account." The Long-Term Care Account.

"Affected municipalities." Any unit of local government other than the host municipality designated as an affected municipality pursuant to section 318. Affected municipalities may be counties, cities, boroughs, townships or school districts.

"Appalachian Compact" or "compact." A compact entered into by Pennsylvania under the terms of the Low-Level Radioactive Waste Policy Amendments Act of 1985, and as contained in the Appalachian States Low-Level Radioactive Waste Compact Law.

"Appalachian States Low-Level Radioactive Waste Compact Law." The act of December 22, 1985 (P.L.539, No.120).

"Atomic Energy Act of 1954." Public Law 83-703, 68 Stat. 921, 42 U.S.C. § 2011 et seq.

"Broker." Any intermediate person who collects, consolidates, handles, treats, processes, stores, packages, ships or otherwise has responsibility for or possesses low-level waste.

"Carrier." A person who transports low-level waste from or to any generator or waste management facility or to a regional facility.

"Commercial incinerator." An incinerator of low-level radioactive waste, except one which incinerates waste at the site of generation or at which only waste generated within the compact by the owner of the incinerator is incinerated.

"Commission." The Appalachian States Low-Level Radioactive Waste Commission.

"Compact states." The combined states including Pennsylvania which have entered into the Appalachian States Low-Level Radioactive Waste Compact.

"Curie." A unit of measure of radioactivity.

"Custodial agency." The government entity designated by the Governor other than the licensing agency responsible for the long-term monitoring and care of the regional facility.

"Department." The Department of Environmental Resources of the Commonwealth.

"Disposal." The isolation of low-level waste from the biosphere.

"Engineered structure." Man-made state-of-the-art barrier designed to provide additional measures for containment of radioactive waste from the environment, protection of the inadvertent intruder and stability of the disposal facility and designed to prevent any radioactive release.

"Facility." Any real or personal property and improvements thereof or thereon, and any and all plants, structures, machinery and equipment, acquired, constructed, operated or maintained for the management or disposal of low-level waste.

"Fund." The Low-Level Waste Fund.

"Generate." To produce low-level waste requiring disposal.

"Generator." A person whose activity results in the production of low-level waste requiring disposal.

"Hazardous life." The time required for radioactive materials to decay to safe levels of radioactivity, as defined by the time period for the concentration of radioactive materials within a given container or package to decay to maximum permissible concentrations as defined by the Federal law or by standards to be set by the host state, whichever is more restrictive.

"Hazardous wastes." As defined in the act of July 7, 1980 (P.L.380, No.97), known as the Solid Waste Management Act, and regulations adopted thereunder.

"Host municipality." One or more city, borough, incorporated town or township, excluding counties, in which the low-level waste disposal facility will be constructed, as designated by the department pursuant to section 318.

"Institutional control period." The time of the continued observation, monitoring and care of the regional facility following transfer of control from the operator to the custodial agency, which shall continue for the hazardous life of the waste.

"Low-level waste." Radioactive waste that:

(1) is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined in section 11(e)(2) of the Atomic Energy Act of 1954 (68 Stat. 922, 42 U.S.C. § 2014(e)(2)), waste generated as a result of atomic energy defense activities of the Federal Government, and waste for which the Federal Government is responsible under section 3(b)(1) of the Low-Level Radioactive Waste Policy Amendments Act of 1985; and

(2) is classified by the Federal Government as low-level waste, consistent with the Low-Level Radioactive Waste Policy Amendments Act of 1985; or

(3) contains naturally occurring or accelerator-produced radioactive material, which is not excluded by paragraph (1) or (2).

"Low-Level Radioactive Waste Policy Amendments Act of 1985." Public Law 99-240, 99 Stat. 1842, 42 U.S.C. § 2021b et seq.

"Management." The reduction, collection, consolidation, storage, processing, incineration, separation, minimization, compaction, segregation, solidification, evaporation, packaging or treatment of low-level waste.

"Operator." A person who operates a regional facility.

"Person." Any individual, corporation, partnership, association, public or private institution, cooperative enterprise, municipal authority, public utility, trust, estate, group, Federal Government or agency, other than the United States Nuclear Regulatory Commission or any successor thereto, state institution and agency, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties. In any provision of this act prescribing a fine, imprisonment or penalty, or any combination of the foregoing, the term "person" shall include officers and directors of any corporation or other legal entity having officers and directors.

"Protection Fund." The Regional Facility Protection Fund.

"Radiation Protection Act." The act of July 10, 1984 (P.L.688, No.147).

"Regional facility." A facility which has been approved by the commission and licensed under this act for the disposal of low-level waste.

"Secretary." The Secretary of Environmental Resources of the Commonwealth.

"Separation." Segregation and isolation of all low-level radioactive waste in accordance with a waste classification system to be established by regulation by the department.

"Shallow land burial." The disposal of low-level radioactive waste directly in subsurface trenches without additional confinement in engineered structures and in proper packaging as determined under this act.

"Zero release capacity." The ability not to release radioactivity.

CHAPTER 3 LOW-LEVEL WASTE DISPOSAL

Section 301. Powers and duties of the Department of Environmental Resources.

The department shall have the power and its duty shall be to:

(1) Develop and implement a comprehensive program for the regulation of the generation, storage, handling, transportation, processing, minimization, separation, management and disposal of low-level radioactive waste to the extent allowable under Federal law or State law, whichever is more stringent.

(2) Implement a regulatory, inspection, enforcement and monitoring program consistent with the terms of an agreement between the United States Nuclear Regulatory Commission and the Commonwealth, as provided for in section 201 of the Radiation Protection Act, and this act.

(3) Enter into a contract with an operator-licensee designate to screen the State to locate potentially suitable sites, to study the sites in detail and to submit a license application to operate the regional facility.

(4) License a regional facility operator in accordance with section 308 and regulations promulgated hereunder.

(5) Issue permits to generators, brokers and carriers of low-level waste for access to the regional facility in accordance with provisions of this act and with specific regulations promulgated under this act.

(6) Receive title to the land for use as a regional facility from the licensee for eventual transfer to the custodial agency or acquire land by eminent domain in the manner provided in the act of June 22, 1964 (Sp.Sess., P.L.84, No.6), known as the Eminent Domain Code, if the operator-licensee designate cannot acquire the property prior to submitting an application to the department for a license.

(7) Use Commonwealth property for the regional facility where such use is consistent with uses authorized under State law.

(8) Provide for the licensing and regulation of a custodial agency for the long-term care and monitoring of the regional facility for the duration

of the institutional control period in accordance with regulations established by the Environmental Quality Board.

(9) Provide for the emergency care and monitoring of the regional facility, which may include the appointment of an interim operator if the department determines that:

(i) the licensee has failed to comply with the terms and conditions of the contract or is in violation of this act, regulation or license conditions, permits or orders issued under this act, or the Radiation Protection Act, and a threat exists to the health or safety of the public or the environment; or

(ii) the licensee is in repeated or continuing violation of this act, regulations or the terms and conditions of any license, permit or order issued under this act, or the Radiation Protection Act.

(10) Implement policies, including fee schedules and other incentives, to the extent authorized by the Appalachian Compact and State and Federal law to reduce the volume and toxicity of low-level radioactive waste.

(11) Promulgate regulations establishing a low-level radioactive waste classification system which shall take into consideration curie concentration, toxicity, hazardous life and prior treatment of wastes.

(12) Promulgate regulations establishing standards for the hazardous life of low-level waste which shall be at least as restrictive as Federal standards.

(13) Provide for emergency response capability in cooperation with the Pennsylvania Emergency Management Agency.

(14) Do any and all other acts not inconsistent with the provisions of this act which are necessary and proper for the effective implementation and enforcement of this act and the Radiation Protection Act.

Section 302. Powers and duties of the Environmental Quality Board.

(a) Rules and regulations.—The Environmental Quality Board, exercising authority under section 1920-A of the act of April 9, 1929 (P.L.177, No.175), known as The Administrative Code of 1929, shall have the power and its duty shall be to adopt regulations developed by the department for the implementation of this act. These regulations shall include, but are not limited to: generation, transportation, handling, separation, minimization, treatment and disposal of low-level radioactive waste; permit and license fees, standards and procedures; facility siting, including standards and siting regulations for new low-level waste incinerators and compactors and for the regional facility; facility design; manifest and reporting requirements; facility operational management; financial responsibility assurance; public participation; host and affected municipality benefits and guarantees; monitoring and inspection; compliance and enforcement; and any other regulatory requirements the department finds necessary or appropriate for the protection of the public health and the environment from low-level radioactive wastes, provided that the provisions of any siting regulations adopted under this section shall not apply to any commercial compactor facility which obtained a license from the United States Nuclear Regulatory Commission

authorizing operation pursuant to the Atomic Energy Act prior to the effective date of this act.

(b) Site selection.—

(1) In addition to the authority to adopt regulations under this act, the Environmental Quality Board shall make the preliminary determination as to whether three proposed potentially suitable sites satisfy the applicable siting regulations.

(2) The effect of the board's preliminary approval of a site is to approve a potentially suitable site for further study. This preliminary approval assures access for further study of the site, in accordance with section 307(f), and public participation, especially by the potential host municipality during the evaluation and study of a potentially suitable site.

(3) The board's preliminary site approval is not a final action regarding the potentially suitable site. The board's preliminary approval is appealable only to the extent the owner of the land which constitutes the site can demonstrate immediate and present damages from further study activity to be undertaken on the site. The final determination as to whether the potentially suitable site meets the siting regulations shall be made by the secretary after the further studies are completed, as part of the license application decision.

(c) Procedure.—The board shall establish procedures, including appropriate public participation, governing the preliminary site approval process. The public participation process shall include at least one public information meeting and one public hearing held by the board in each potential host municipality and an opportunity for comment on the public record. The host municipality and host county shall have a minimum of 180 days from the receipt of funds under section 318(a) to offer comments during the public participation process established under this section.

(d) Technical assistance.—

(1) The board may contract for the services of an independent consultant to assist the board in its review of all matters relating to the evaluation and preliminary approval of the sites proposed and submitted to the board by the operator-licensee designate under the provisions of section 307.

(2) The consultant shall be selected through a request-for-proposal process. The proposal shall include sufficient information to evaluate the consultant's expertise, competence and qualifications for assisting in the evaluation of the proposed sites.

(3) No consultant shall have a direct financial interest in any industry which generates low-level radioactive waste, any low-level radioactive waste regional facility or any associated industry, nor shall they have acted as a consultant to the department in any matter involving low-level radioactive waste within five years from the date of this act. Any consultant which may have a potential conflict of interest as described in the act of July 19, 1957 (P.L.1017, No.451), known as the State Adverse Interest Act, the act of October 4, 1978 (P.L.883, No.170), referred to as the Public Official and Employee Ethics Law, or other applicable statute or executive order shall reveal and explain the potential conflict as part of the request-for-proposal process.

Section 303. Generation, transportation, handling, management and disposal of low-level waste.

Each person who generates, transports, handles, manages or disposes of low-level waste shall:

(1) Maintain records to identify the volume and radioactivity content of low-level waste generated and shipped, the method of transportation, the origin and disposition of such low-level waste, and such additional records as the department may require.

(2) Furnish information as required by the department on such low-level waste to persons transporting, managing, storing or disposing of such wastes.

(3) Use a manifest system as specified in section 310(a)(1) for all low-level waste transported.

(4) Transport low-level waste for handling, management or disposal to the approved facilities which the generator or broker has designated on the manifest form.

(5) Submit reports to the department quarterly, listing the quantities, types and classes of low-level waste generated during a particular time period.

(6) Maintain such operation, train personnel and assure financial responsibility for such handling or disposal operations to prevent adverse effects to the public health, safety and welfare and to the environment and to prevent public nuisances.

(7) Immediately notify designated public agencies of any accident away from the site of generation involving potential or actual spill or accidental discharge of such waste, and take immediate steps to contain and clean up the spill or discharge.

(8) Separate all low-level radioactive wastes in accordance with the waste classification system to be established by the department.

Section 304. Siting regulations.

The department shall develop siting regulations which shall be designed to allow for screening of the State by the operator-licensee designate and the selection of three potentially suitable sites. The regulations shall also contain detailed site specific provisions which the operator-licensee designate shall use to evaluate a potentially suitable site approved for further study. Potentially suitable sites shall not have any slopes for the disposal area of more than 15% as mapped on a scale of 1:24,000 with a contour interval of either 10 or 20 feet as available on published U.S.G.S. 7.5 minute quadrangles. The regulations shall include, but not be limited to, consideration for public health and safety, flooding, tectonics, protection of lands in the public trust, protection and exploitation and exploration of natural resources, demographics, transportation, wildlife, air quality, ecology, topography and hydrogeology. The regulations shall also provide that potentially suitable sites shall not be located where nearby facilities or activities could adversely impact the ability of the site to meet the above considerations or significantly mask the monitoring of the facility. The regulations shall be at least as stringent as those regulations adopted under the Atomic Energy Act of 1954. The

Environmental Quality Board shall hold at least one public information meeting and at least one public hearing on the siting regulations, and shall solicit and take into consideration written public comments, prior to final adoption. There shall be 30 days' public notice before any hearing. Notice shall, at a minimum, be provided in the Pennsylvania Bulletin and in newspapers of general circulation in each county.

Section 305. Facility design and operational management regulations.

The department shall establish by regulation minimum engineering design and operational management criteria for the regional facility. These criteria shall be in addition to those required by regulations adopted under the Atomic Energy Act of 1954. Shallow land burial, as defined in this act, is prohibited. An above-land grade facility is required unless other designs provide significant improvement in recoverability, monitoring, public health and environmental protection. The facility shall have the goal of a zero release capacity. The criteria shall include, but not be limited to, provisions for enhanced containment, recoverability, long-term passive isolation, minimization of risks from water intrusion, protection from inadvertent intruders, monitoring and special requirements for various classes of wastes which shall include, but not be limited to, provisions for the segregation and recoverability of Class C waste. The Environmental Quality Board shall hold at least one public information meeting and at least one public hearing on the regulations, and shall solicit and take into consideration written public comments, prior to final adoption. There shall be 30 days' public notice before the hearings. Notice shall, at a minimum, be provided in the Pennsylvania Bulletin and in newspapers of general circulation in each county.

Section 306. Operator-licensee designate selection.

(a) **Proposals.**—The secretary shall, through a request-for-proposal process, select an operator-licensee designate. The proposals shall include detailed methods to be used for site screening and selection of potentially suitable sites; an explanation of how the operator plans to meet requirements of this act for public participation, including details of provisions for information to and solicitation of information from the public, the host municipality and the host county; the design of the proposed regional facility; the detailed site specific studies to be conducted to determine the environmental qualifications of the sites; a description of facility operational plans; a description of operator qualifications, including relevant experience, financial history, compliance history and current financial and compliance status of the operator; details of the method of operating the regional facility; a proposed method to determine the impact of the regional facility on the potential host and affected municipalities; a proposal for a minimum host municipality benefits and guarantee package; a proposed fee schedule for disposal based on projected disposal costs and waste classification; and any other criteria the secretary may require.

(b) **Qualifications.**—

(1) The department shall develop standards for operator qualifications which shall be reviewed by the Low-Level Waste Public Advisory Committee prior to the start of the request-for-proposal process. The stan-

dards shall include, but not be limited to, provisions for consideration of the following:

- (i) The relevant experience of the operator-licensee applicant.
- (ii) The financial history of the operator-licensee applicant.
- (iii) The compliance history of the operator-licensee applicant. In reviewing the applicant's compliance history, the department:

(A) shall require the applicant to provide a record of its compliance history with environmental protection statutes of the Commonwealth, other states and of the Federal Government, including, but not limited to, any violations of the provisions of this act, the Appalachian States Low-Level Radioactive Waste Compact Law, the Radiation Protection Act, or any other state or Federal statute relating to environment protection or to the protection of public health, safety and welfare or any rule or regulation, order or any condition of any license issued by the department or any major violations, orders or consent decrees or similar administrative enforcement actions, or civil or criminal litigation involving the requirements above; and

(B) may deny the applicant the opportunity for consideration as an operator if he has engaged in unlawful conduct, or if the applicant's partner, associate, officer, parent corporation, subsidiary corporation, contractor or agent has engaged in such unlawful conduct, or has shown a lack of ability or intention to comply with the requirements listed in clause (A), unless the applicant demonstrates to the satisfaction of the secretary that the applicant has the ability and intention to comply with requirements as referred to in clause (A). Evidence of the ability and intention to comply with these requirements shall include, but not be limited to, evidence that:

(I) the applicant does not have a pattern of major violations of the environmental requirements referred to in this section;

(II) the applicant does not have a record of continuing violations of the environmental requirements referred to in this section. For the purpose of this subclause, a continuing violation includes, but is not limited to, a violation that is not being abated or removed or a violation where the applicant is not cooperating in good faith with the appropriate State or Federal environmental agency to remedy or abate the violation;

(III) the applicant has complied or is complying with all orders or consent decrees of the department, or similar administrative enforcement actions of another state or of the Federal Government where pollution is being abated or removed; and

(IV) the applicant has made or is making full payment of any civil or criminal penalties imposed under the environmental statutes of the Commonwealth, another state or of the Federal Government.

(2) In no event shall any person who has committed a criminal violation of any state or Federal environmental statute resulting in a conviction

of a first degree misdemeanor or a felony, within ten years prior to the effective date of this act, be given an opportunity to be considered under this act as an operator.

(3) If all applicants are found unacceptable by the secretary, the secretary shall recommend to the Governor, that the Governor, with the advice and consent of the General Assembly, shall designate an agency or authority of the Commonwealth to operate the regional facility at the site selected by the secretary in compliance with all regulations of the department.

(c) Procedure.—All proposals from potential site operator-licensee designates shall be open for public inspection and comment for at least 90 days prior to the selection of the operator by the secretary. Notice shall, at a minimum, be provided in the Pennsylvania Bulletin and in newspapers of wide general circulation of the availability of the proposals, and the proposals shall be available for public inspection. At least two public meetings shall be held in conjunction with the Low-Level Waste Advisory Committee to discuss the proposals. All written comments received during the comment period will be taken into consideration and become part of the public record.

(d) Contract.—The secretary shall enter into a contract with the operator-licensee designate authorizing the operator to complete the site screening process, the selection of three potentially suitable sites, the detailed evaluation of each potentially suitable site, and the license application process, and to operate and close the regional facility only if issued a license from the department under this act. The contract shall include, but not be limited to, any applicable provisions of the proposal. The contract shall contain provisions regarding funding sources to be utilized for the facility, liability agreements, the establishment of a reasonable and adequate fee structure, expenses for events which are beyond the control of the operator-licensee designate and cancellation or modification of the contract if the operator-licensee designate is not complying with the provisions of the contract or is unable or unwilling to properly carry out the site screening and evaluation process.

(e) Appeal.—Any affected person may appeal the selection of the operator-licensee to the Environmental Hearing Board based solely on the qualifications in this section of the operator-licensee designate.

Section 307. Site selection.

(a) Screening report.—The operator-licensee designate shall conduct a study screening the Commonwealth for potentially suitable sites in accordance with the siting regulations adopted pursuant to section 304 and shall prepare a screening report which documents the findings of the study. A municipality or group of municipalities may, through their duly authorized governing body or bodies, request consideration as a potentially suitable site under this section. Such offering municipality or group of municipalities shall be included in the screening study to be conducted by the operator-licensee designate, the screening report required by subsection (b) and the other applicable provisions of this section.

(b) Submission.—The operator-licensee designate shall propose three potentially suitable sites and submit those sites to the Environmental Quality Board for approval. The proposal shall be accompanied by:

- (1) the site screening report;
- (2) a site justification explaining the reasons for choosing the potentially suitable sites compared to other sites considered; and
- (3) a study of the short-term and long-term environmental effects on the potentially suitable sites and affected areas.

(c) Social and economic impact study.—At the same time as the submission of the application for potentially suitable sites required in subsection (b), the operator shall submit to the department a study of the short- and long-term social and economic impacts of a regional facility on the municipalities surrounding the potentially suitable sites. The study shall include, but not be limited to, the impacts on tax revenue, public infrastructure, emergency management capabilities, compatibility with regional and local economic goals, other demographic characteristics, loss of resources and social service demands. The study shall propose each host municipality and affected municipalities.

(d) Evaluation.—The department shall evaluate the proposal and submit conclusions and siting recommendations to the Environmental Quality Board.

(e) Procedure.—The Environmental Quality Board shall hold at least one public information meeting and one public hearing in each of the potentially suitable areas as required in section 302(c), evaluate the three proposed potentially suitable sites and determine if they satisfy the applicable siting regulations. If any site does not satisfy the applicable siting regulations, the board shall so inform the operator-licensee designate who shall propose another potentially suitable site and submit another site justification pursuant to subsection (b), and another social and economic impact study pursuant to subsection (c). If a proposed potentially suitable site satisfies the applicable siting regulations, the board shall give preliminary site approval to allow for further site evaluation. The board shall make a determination that the screening process has identified three of the best potential locations in the host state, based on the administrative record before the board. The administrative record shall consist of the screening report, site justification report, the study of short-term and long-term environmental effects on the potentially suitable sites, the conclusions and siting recommendations of the department and the testimony presented at the board's public hearings and comments received during the comment period.

(f) Preliminary approval.—

(1) Upon the preliminary approval of the three sites by the Environmental Quality Board, the operator-licensee designate shall obtain access to those sites for further study. The operator-licensee designate shall have the right to enter provided to a condemnor under section 409 of the act of June 22, 1964 (Sp.Sess., P.L.84, No.6), known as the Eminent Domain Code.

(2) Property owners of any site which has received preliminary approval by the Environmental Quality Board, but which is not selected as the final site, shall have the rights of a condemnee under section 408 of the Eminent Domain Code, as are therein granted to condemnees subject to a

revocation of condemnation proceedings. When the preliminary site has been rejected by the action of the secretary in issuing a permit for another site, notice of such relinquishment shall be served upon the affected property owners in the same manner as provided for in a declaration of taking under the Eminent Domain Code. The affected property owners shall be reimbursed by the operator-licensee designate for reasonable appraisal, attorney and engineering fees and other costs and expenses actually incurred because of the preliminary approval of the site by the Environmental Quality Board. Such damages shall be assessed by the court, or the court may refer the matter to viewers to ascertain and assess the damages sustained by the affected property owners, whose award shall be subject to appeal as provided in the Eminent Domain Code.

(g) Purchase of site.—Upon receiving a license to operate the regional facility at the site, the operator shall purchase the site and transfer title to all land to the Commonwealth. If the operator-licensee designate is unable to purchase the site, the Commonwealth shall acquire the site by eminent domain and the operator-licensee designate shall reimburse the Commonwealth for all costs of acquisition.

(h) Final approval.—The issuance of a license by the secretary pursuant to section 308 shall constitute final approval of the site. The Commonwealth shall hold title to the land until at least the end of the institutional control period.

(i) Appeal.—The issuance of the license is appealable to the Environmental Hearing Board pursuant to section 1921-A of the act of April 9, 1929 (P.L.177, No.175), known as The Administrative Code of 1929. This appeal shall take precedence over other appeals pending before the board and shall be handled in an expedited manner. The decision of the board is appealable to Commonwealth Court. A citizen of this Commonwealth, a host municipality or a host county, who or which makes an appeal on his or its own behalf under this section, shall not be required to post a bond nor shall they be required to pay a fee for filing the appeal.

Section 308. Operator licensing.

(a) Regulations.—The department shall establish by regulation the procedure and requirements for licensing of the regional facility operator. The regulation shall provide, without limitation:

- (1) Authority for the amendment, suspension or revocation of the license.
- (2) Consent for entry into the regional facility.
- (3) Requirements for the form of the application and the information to be provided.
- (4) Requirements for submission of a decommissioning plan for the regional facility.
- (5) Requirements that the application and all submissions be in writing and signed.

(b) Further statements and inspections.—The department may at any time after the filing of the application, and before the expiration of the license, require further written statements and may make such inspections as

the department deems necessary to determine whether the license should be granted, modified, suspended or revoked. All applications and statements shall be signed by the applicant or licensee.

(c) **Impact analysis.**—The license applicant shall prepare a written analysis of the impact of such licensed activity. The analysis shall be available to the public at least 120 days before the commencement of hearings held pursuant to subsection (d) and shall include:

(1) A detailed assessment of the radiological and nonradiological impacts to the public health and on the environment.

(2) A detailed assessment of the impact on the quality and quantity of the surface and groundwater within a five-mile radius of the site.

(3) Consideration of the short-term and long-term public health and environmental impacts from closure, decommissioning, decontamination and reclamation of facilities and sites associated with the licensed activities and management of any radioactive materials which will remain on the site after such closure, decommissioning, decontamination and reclamation. These impacts shall include, but not be limited to, adverse effects due to prior activities and conditions, including water and air quality problems, a health survey of cancer and other disease rates and birth defects, and prior mining.

(4) Consideration of the short- and long-term social and economic impacts of the regional facility on the host municipality and affected municipalities, to create a minimum set of items to be considered as part of the host and affected municipality benefit negotiations. At a minimum the study should include the impacts on local tax revenues, public infrastructure, emergency management capabilities and social service demands.

(5) A preoperational environmental radiation survey and a preoperational health survey of cancer and other disease rates and birth defects within five miles of the site.

(6) Justification for the choice of the proposed site over the other two potentially suitable sites.

(d) **Duty of secretary.**—Before approving or disapproving the license application, the secretary shall provide:

(1) The public with the opportunity to review and inspect the license application at a publicly available location in the area where the regional facility is proposed to be located.

(2) A 90-day public comment period, one public information meeting and one public hearing, not within 30 days of each other, after adequate public notice, in the area where the regional facility is proposed to be located. All written comments and comments contained in a transcript of the hearing shall be considered in the secretary's decision on the application and become part of the public record.

(3) A written determination of the action to be taken, including a response to comments, which is based upon findings included in the determination and upon evidence presented during the public comment period.

(e) **Terms and conditions of license.**—The terms and conditions of all licenses issued under this act shall be subject to amendment, revision or mod-

ification by regulations or orders. The department shall provide by regulation for public notice of license amendment requests and for a public participation process.

(f) Financial assurance.—No license shall be issued by the department unless the operator provides the financial assurances required by section 316.

(g) License denial, suspension, etc.—In carrying out this act, the secretary may deny, suspend, modify or revoke any license if he finds that the applicant or licensee has failed or continues to fail to comply with any provision of this act, the Appalachian States Low-Level Radioactive Waste Compact Law, the Radiation Protection Act or any other state or Federal statute relating to environmental protection or to the protection of the public health, safety and welfare; or any rule or regulation of the department; or any order of the department; or any condition of license issued by the department; or if the department finds that the applicant or licensee has shown a lack of ability or intention to comply with any provision of this act or of any acts referred to in this section, or any rule or regulation of the department or order of the department, or any condition of any license issued by the department as indicated by past or continuing violations. In the case of a corporate applicant or licensee, the department shall deny the issuance of a license if the secretary finds that a principal of the corporation was a principal of another corporation which committed past violations of any of the above laws, unless the principal has demonstrated that the violations are not relevant to issuing the license or permit or there are other mitigating circumstances which demonstrate the applicant has the ability and intent to comply with the law.

Section 309. Out-of-compact waste.

(a) Source of waste.—No low-level waste shall be accepted for disposal at the regional facility unless the waste was generated within the Appalachian Compact states or the commission has entered into a reciprocal contingency agreement for the emergency disposal of out-of-compact low-level waste. Waste generated within the Appalachian Compact states shall not include radioactive waste shipped from outside the Compact states to a waste generator or management facility within the Compact states. For the purposes of this section, an emergency shall include the temporary shutdown of a regional or state low-level radioactive waste disposal facility for a period of time which the commission reasonably projects will extend beyond the time when the low-level radioactive waste storage at the generator's facility and the disposal facility will reach maximum capacity, and additional storage would constitute a threat to the health and safety of the public or the environment. The reciprocal contingency agreement shall provide that the regional or state low-level waste disposal facility with the emergency will accept from the Appalachian Regional Facility or from generators, brokers or carriers licensed or permitted by the department, immediately at the termination of the emergency, an amount of low-level radioactive waste equal to the volume and toxicity of the low-level radioactive waste shipped to the Appalachian Regional Facility during the emergency.

(b) Approval of certain agreements.—No agreement shall permit the disposal of out-of-compact waste for a period exceeding three months unless a continuation of the agreement is approved by the General Assembly or the Governor. The Speaker of the House of Representatives and the President pro tempore of the Senate shall cause to be placed on the calendars of the House and Senate a concurrent resolution approving the proposed continuation. If the General Assembly fails to approve or disapprove the concurrent resolution within ten legislative days or 30 calendar days, whichever occurs first, the Governor may approve the continuation of the reciprocal agreement by executive order. The commission shall notify the General Assembly and the Governor when it has determined that a continuation of the reciprocal agreement is recommended and the date on which disposal will cease.

(c) Limited permit.—The department shall review an application and shall issue a limited permit for each low-level waste generator from outside the compact that meets the criteria for use of the regional facility. The department shall only issue the permit upon a determination by the commission that an emergency exists in the state or region in which the permittee is located. The permit shall not be valid for a period exceeding three months, unless a continuation is approved by the General Assembly or the Governor as provided in subsection (b).

Section 310. Permitting of generators, brokers and carriers.

(a) Regulations.—The department shall provide by regulation for the permitting of generators, brokers and carriers for access to the regional facility. Such regulations shall establish, without limitation:

(1) Requirements for packaging, separation, waste form, routing, manifesting, financial assurance, recordkeeping, emergency planning and length of term of the permit.

(2) Limits on the types, quantities and origins of radioactive waste allowed for disposal.

(3) That each application for a permit or amendment shall be in writing and signed by the applicant.

(4) The form of the application and the information it should contain.

(5) Requirements for applicant's consent for entry to facilities, vehicles and equipment.

(6) Procedures for suspension, revocation and amendment of permits.

(7) That each generator have a plan for reduction of toxicity and volume with stated reduction goals.

(8) Any other requirements the department deems necessary or proper to implement the provisions of this act and the Radiation Protection Act.

(b) Issuance of permit.—Upon approval of the application and receipt of fees, the department shall issue a permit to the applicant as set forth in the application and further conditioned by the department as necessary.

(c) Permit denial, suspension, etc.—In carrying out this act, the department may deny, suspend, modify or revoke any permit if it finds that the applicant or permittee has failed or continues to fail to comply with any provision of this act, the Appalachian States Low-Level Radioactive Waste Compact Law, the Radiation Protection Act or any other state or Federal

statute relating to environmental protection or to the protection of the public health, safety and welfare; or any rule or regulation of the department; or any order of the department; or any condition of any permit or license issued by the department; or if the department finds that the applicant or permittee has shown a lack of ability or intention to comply with any provision of this act or any act referred to in this section, or any rule or regulation of the department or order of the department, or any condition of any permit or license issued by the department as indicated by past or continuing violations. In the case of a corporate applicant or permittee, the department shall deny the issuance of a permit if it finds that a principal of the corporation was a principal of another corporation which committed past violations of any of the above laws, unless the principal has demonstrated that the violations are not relevant to issuing the license or permit or there are other mitigating circumstances which demonstrate the applicant has the ability and intent to comply with the law.

Section 311. Decommissioning.

When the regional facility is to be closed, the department shall require that the regional facility is properly decommissioned by the operator-licensee, that all remaining property is transferred to the Commonwealth and that control is transferred to the custodial agency. The cost of decommissioning shall be borne by the operator-licensee. The department shall make a determination that the site has been properly decommissioned and that the site, along with the license responsibilities, is suitable for transfer to the custodial agency, at which time the operator license shall be terminated. A decommissioning plan shall be submitted as part of the license application, be incorporated into the license and be periodically reviewed and amended as necessary over time.

Section 312. Low-Level Waste Fund.

(a) Establishment.—There shall be established within the State Treasury a separate account to be known as the Low-Level Waste Fund.

(b) Deposits.—All fines, penalties, fees and surcharges not designated for other purposes, collected under this act shall be paid into this fund. Additionally, all funds received from the United States Department of Energy or from the Appalachian Compact Commission or Compact states for low-level radioactive waste activities shall be deposited into the fund.

(c) Appropriation and purpose.—Moneys in the fund, except those received from the United States Department of Energy, are hereby appropriated to the department on a continuing basis to be used, upon approval of the Governor, solely for the administration and enforcement of this act, for site development, for emergency operations, for any liability of the Commonwealth, and to repay the General Fund for any appropriation made to the fund.

Section 313. Long-Term Care Account.

(a) Establishment.—There shall be established within the fund an interest-bearing restricted account to be known as the Long-Term Care Account.

(b) Surcharges.—Surcharges on disposal rates shall be imposed by the department for the expected costs of activities under this account.

(c) Purpose.—The account shall be used for no other purpose than to provide for the following:

(1) The long-term care and monitoring for the duration of the institutional control period and any emergency or remedial work that might become necessary at any regional facility by the department or the custodial agency.

(2) The assumption by the department or the custodial agency for early direct responsibility for the care and monitoring at the regional facility.

(d) Appropriation.—All moneys in the account are hereby appropriated to the department on a continuing basis to carry out this section.

Section 314. Regional Facility Protection Fund.

(a) Establishment and purpose.—There shall be established within the State Treasury a separate account to be known as the Regional Facility Protection Fund. All moneys in this fund are hereby appropriated to the department on a continuing basis for the following purposes:

(1) To pay claims for personal injury and property damage against the Commonwealth, host municipality and host county arising from their responsibilities under this act.

(2) To pay claims for personal injury and property damage against the regional facility licensee made at any time after the termination of the license arising from operation of the regional facility.

(b) Administration.—The Environmental Quality Board shall promulgate regulations, prepared by the department, to administer the Regional Facility Protection Fund. Such regulations shall include, but are not limited to, scope of coverage, further limits of liability, procedures for filing claims, presumptions and burdens of proof.

(c) Deposits.—All surcharges on waste disposed of at the regional facility under section 315(c)(1)(iv) and all interest earned thereon shall be deposited in the Regional Facility Protection Fund.

(d) Appeals.—All appeals from denial of a claim shall be to the Board of Claims. The department shall represent the Regional Facility Protection Fund in any such action.

Section 315. Fees, rates and surcharges.

(a) Establishment by department.—The department shall establish reasonable fees for licensing of the operator-licensee designate and permitting of generators, brokers and carriers. In setting the fees, the department shall consider disposal costs and classification of the waste.

(b) Approval of rates charged by operators.—The department shall require that all proposed rates charged by the operator for the disposal of low-level waste in the regional facility be submitted to the department prior to their implementation. The department shall determine if the rates are consistent with the fee structure established in the contract entered into under section 306(d) and may require the operator to modify the proposed rates if the department determines that they are not consistent with the fee structure established in the contract entered into under section 306(d). The rates shall be based on actual disposal cost and waste classification. Rates shall be ade-

quate to assure protection of public health and safety and the environment, the retirement of facility debt plus an adequate return on capital invested and future site closure, and stabilization and decommissioning expenses.

(c) Surcharges.—

(1) The department shall assess surcharges on low-level radioactive waste disposed of at the regional facility as follows:

(i) A surcharge imposed adequate to return to the General Fund over a five-year period any appropriations expended by the department from the General Fund from July 1, 1987, to the date the regional facility begins operation, and shall expire when the General Fund is fully reimbursed.

(ii) A continuing surcharge imposed to be adequate to support the Commonwealth's expenses related to this act and the compact, including, but not limited to, the surveillance of packages, inspection, decontamination, decommissioning and postclosure maintenance of the regional facility, recordkeeping systems and such other activities as the department finds necessary to ensure the safe operation of the regional facility.

(iii) A surcharge imposed to be adequate to fund the Long-Term Care Account as provided in section 313.

(iv) A surcharge that shall be adequate to fund the Regional Facility Protection Fund to a level of not less than \$100,000,000, indexed to increase with cost-of-living adjustments, upon the date of termination of the operator's license.

(2) These surcharges and fees shall be reviewed annually by the department to determine if they are adequate and revised accordingly. The method shall be determined by regulation.

(3) These surcharges shall be collected by the operator at no cost to the Commonwealth and shall be transmitted to the department no less frequently than monthly.

(d) Host and affected municipality benefits.—The department shall review and approve all surcharges for host and affected municipality benefits as provided in section 318.

Section 316. Financial assurance and liability.

(a) Financial assurance requirements.—The department shall establish by regulation detailed financial assurance requirements for the operator for the operation, closure, postclosure monitoring and maintenance, and emergencies related to the regional facility.

(b) Proof of coverage of all costs.—The operator shall, prior to receipt of a license, show that it either possesses the necessary funds or has reasonable assurance of obtaining the necessary funds, or a combination of the two, to cover all estimated costs of conducting all licensed activities over the planned operating life of the regional facility, including costs of construction and operation.

(c) Emergency actions, closure, etc.—The operator shall, prior to receipt of a license, provide assurance that sufficient funds are available to carry out emergency actions, site closure, decommissioning and stabilization, in accor-

dance with the financial assurance regulations established by the department.

(d) Indemnification.—

(1) Generators, brokers and carriers for which a permit is required under sections 309 and 310 shall comply with the financial assurance regulations established by the department. Each broker, carrier and generator shall hold the Commonwealth, the host municipality, host county and their agents harmless, defend and indemnify the Commonwealth, the host municipality, host county or their agents against any and all claims, actions, demands, liabilities and losses by reason of any injury or damage to person or property arising out of any handling, management, shipping, transportation or generation of low-level waste.

(2) The operator-licensee shall hold the Commonwealth, the host municipality, host county and their agents harmless, defend and indemnify the Commonwealth, host municipality and host county and their agents against any and all claims, actions, demands, liabilities and losses for personal injury or property damage at law and equity.

(e) Limitations on liability.—In any action against the operator-licensee by any person for damages, there shall be no limit to the operator-licensee's liability if it can be shown that the operator-licensee acted in a manner that was negligent, grossly negligent, willful, reckless or intentional. In all other claims and actions for damages against the operator-licensee, there shall be a total and cumulative limit of liability which shall be no more than \$100,000,000, plus the amount of insurance or other financial assurance applicable to the obligation or liability as required by the department.

(f) Sovereign immunity.—No provision of this act shall constitute a waiver of sovereign immunity except as provided by 42 Pa.C.S. Ch. 85 Subch. B (relating to actions against Commonwealth parties).

(g) Insurance.—The operator shall provide evidence of commercial insurance or other financial assurance as approved by the department to compensate persons for bodily injury or property damage arising from sudden and nonsudden incidents from the operation of the facility. The department shall determine the minimum amount of insurance or financial assurance, but in no case shall the minimum amount be less than the capital cost of the regional facility. For purposes of this subsection, "capital cost" means the cost of bidding for, siting, acquiring, licensing, planning, developing, constructing, equipping and promoting the regional facility and improvements made over the operating life of the facility.

Section 317. Low-Level Waste Advisory Committee.

(a) Appointment.—The secretary shall appoint a Low-Level Waste Advisory Committee. The committee shall consist of at least 23 members, 19 of whom shall represent local government, environmental, health, engineering, business, academic and public interest groups and four members of the General Assembly, two from the Senate, one member from the majority party and one member from the minority party, or their designees, who shall be appointed by the President pro tempore, and two from the House of Representatives, one from the majority party and one from the minority party, or their designees, who shall be appointed by the Speaker of the House of

Representatives. The secretary shall designate a representative of the department who shall be a nonvoting member of the committee. Representatives of the host municipality and host county shall also be appointed as additional voting members of the committee. No member of the committee shall be employed by or hold a financial interest in the operator company or any of its subsidiaries or parent companies, and no more than three of the members of the committee shall be employed by or hold a financial interest in a company which serves as a subcontractor to the operator company or in any entity that utilizes the regional facility for disposal of its low-level radioactive wastes.

(b) Review of draft regulations, advice, etc.—The committee shall have an opportunity to review draft regulations under this act and advise the department prior to proposal. The committee shall have an opportunity to review and comment on operator selection, including the proposed standards developed by the department for the qualifications and compliance history of the operator. The committee may also advise the department regarding policies and issues related to the implementation of this act as may be submitted by the department to the committee for review.

(c) Chairman.—The committee shall elect a member to serve as chairman.

(d) Policies and procedures.—The committee shall establish policies and procedures for the conduct of business which shall include a policy regarding potential conflicts of interest of members.

(e) Meetings.—Meetings shall be held at least annually. After a site is designated, at least one meeting shall be held in the host municipality each year.

(f) Expenses and support services.—Members shall serve without salary or compensation except for reimbursement by the department for reasonable and necessary expenses incurred in connection with their duties as approved by the secretary. The department shall also provide necessary administrative support services, budget and staff to the committee for the carrying out of its responsibilities under this section.

(g) Termination.—The Low-Level Waste Advisory Committee shall cease to exist when the department's responsibility for the regulation of low-level radioactive waste is terminated.

Section 318. Host and affected municipality benefits and guarantees.

(a) Funding for evaluation of proposal.—Upon submission of the potentially suitable sites application to the Environmental Quality Board for approval, the department shall provide a reasonable amount of funds, not to exceed \$100,000 per site, to the proposed host municipalities in the study under section 307(c), and, upon the request of such county, the department shall provide a reasonable amount of funds, not to exceed \$100,000 per site, to the proposed host county in the study under section 307(c) to evaluate the proposal submitted by the operator-licensee. The host municipality and the host county shall present their findings to the board not more than 180 days after receipt of funds under this subsection. Strict accounting and verification of expenditures for activities related to this topic shall be provided by

the potential host municipalities to the department in accordance with their municipal codes. All unused moneys shall be returned to the department.

(b) Funding for evaluation of application.—Upon receipt of a license application from the operator-licensee designates, the department shall provide a reasonable amount of funds, not to exceed \$150,000, to the potential host municipality to carry out an independent evaluation of the application, and, upon the request of such county, the department shall provide a reasonable amount of funds, not to exceed \$150,000, to the potential host county to carry out an independent evaluation of the application. The potential host municipality and county, within 180 days after receipt of funds under this subsection, shall present its findings to the department for inclusion in the licensing proceedings. Strict accounting and verification of expenditures for activities related to this topic shall be provided by the host municipality to the department in accordance with its municipal code. All unused moneys shall be returned to the department.

(c) Additional members of advisory committee.—After the license application has been received, the potential host municipality and potential host county will be requested to nominate one additional member each to the department's Low-Level Waste Advisory Committee.

(d) Petition for designation as affected municipality.—After the license application has been received, a municipality may petition the department to be designated as an affected municipality. The department shall designate affected municipalities based upon, but not limited to, the contents of the petition, the results of the social and economic impact and environmental impact studies submitted as part of the potentially suitable site proposal under section 307, and the license application under section 308. This shall not preclude the department from designating a municipality as affected even though the municipality has not submitted a petition. At least 30 days prior to taking final action, the department shall publish for comment in the Pennsylvania Bulletin a notice of its intent to grant or deny designation of a municipality as an affected municipality under this act, including the reasons for its action.

(e) Designation as component of license.—The department shall designate host and affected municipalities as a part of the license.

(f) Surcharge for municipalities.—With the approval of the department, the operator shall establish a reasonable surcharge on rates charged for waste disposed at the regional facility to be paid to the host municipality, host county and affected municipalities for the following purposes:

(1) Training and equipping the first responding fire, police and ambulance services to handle anticipated emergency events at the regional facility or on the transportation routes serving the site within the host or affected municipalities.

(2) Support for affected county emergency management planning, training and central dispatch facilities as may be required to handle anticipated emergency events at the regional facility.

(3) A minimum dollar amount guaranteed annually regardless of the volume of waste received at the regional facility and any additional

amount per unit of waste (cubic foot, curie content or a combination of the two) the operator and host municipality may agree upon. These funds will go directly to the host municipality.

(4) Payment of school district and municipal property taxes for individuals whose primary residence is within two miles of the regional facility for the operational life of the facility. For purposes of this section, a primary residence is the property in which the owner resides for at least nine months of each year. Payments under this section shall be prorated based on the assessed value of property located within two miles of the facility.

(5) The hiring by the host municipality of two full-time qualified inspectors, as determined by the department, to perform inspections of all activities at the regional facility under a written agreement with the department. The inspectors shall have the right of independent access to inspect any and all records and activities at the site and to carry out joint inspections with the department. The department shall respond immediately to any emergency complaint of the host municipality inspector. The department shall respond to any written complaint of the inspector within 24 hours.

(6) The hiring, upon the request of the host county, of two full-time qualified host county inspectors, to perform inspections of all activities at the regional facility under a written agreement with the department. The inspectors shall have the same authority and responsibilities as the host municipality inspectors as outlined in paragraph (5) and section 502.

(7) The development of an educational program for host inspectors and interested parties.

(8) Funds for the expenses incurred by an Environmental Advisory Council serving the host municipality or the affected municipalities, which has been set up pursuant to the act of December 21, 1973 (P.L.425, No.148), referred to as the Municipal Environmental Advisory Council Law, for the purpose of advising government agencies, elected officials and the public on matters dealing with the protection and conservation of the environment, including the immediate area of the disposal site.

(g) Authority of municipality.—The host and affected municipalities' governing bodies shall have the exclusive power, authority and duty to determine how to utilize any funds received under this section, provided that such expenditures or utilization shall be consistent with the provisions of the prevailing municipal code in effect at the time of the expenditure.

(h) Additional duties of operator.—The operator shall also provide for the following:

(1) An independent periodic well and surface water sampling program and soil and plant sampling program which will provide analyses for radioactive and specified chemical contamination for properties within three miles of the boundary of the regional facility. Test results shall be supplied to the host or affected municipality, homeowner and the department.

(2) An independent, continuous, air, well water, surface water and soil sampling program which will provide analyses for radioactive and specified chemical contamination at the regional facility boundary. Test results shall be supplied to the host county, host municipality, affected municipality landowners, homeowners and the department.

(3) A property purchase program as follows:

(i) Any landowner will be guaranteed the sale of his property or purchase by the site operator at property values immediately prior to the time operator-licensee designate's potentially suitable site application is submitted to the department, and any subsequent improvements since that date provided that the real property and improvements thereto are located within two miles from the boundary of the regional facility.

(ii) The guarantee shall be in effect for a two-year period, this period to begin on the date of issuance of the license by the department.

(4) Prior to acceptance of waste at the regional facility, and every three years thereafter, the operator will provide updated information for the health survey related to cancer and other disease rates and birth defects of the population within a five mile radius of the facility, and shall offer without charge whole-body radioactivity measurements and other measures appropriate to assess the presence of internal radioactive emitters to all permanent residents within the host municipality or within five miles of the boundary of the regional facility. All data shall be provided to the individual with a full explanation of the results and copies made available to the host or affected municipality and the department. Tests other than the above shall also be made available, subject to the approval of the department. Results of all such tests shall be considered confidential medical records. The department shall retain copies of all records provided to it.

(i) Additional duties of department.—In addition, the department shall:

(1) Submit all final inspection reports to the host municipality and host county within five working days.

(2) Notify the host municipality and host county of all enforcement or emergency actions at the regional facility immediately.

(j) Benefit sharing.—Where there are two or more host municipalities, the benefits under this section shall be shared according to an agreement to be reached between these host municipalities. If an agreement cannot be reached, the department will decide upon a final division of the benefits, which decision shall not be reviewable.

(k) Local ordinances.—The host municipality shall have the authority to adopt reasonable ordinances, including, but not limited to, ordinances concerning the hours and days of operation of the facility and traffic. Such ordinances may be in addition to, but not less stringent than, not inconsistent with, and not in violation of any provision of this act, any regulation promulgated pursuant to this act or any license issued pursuant to this act. Such ordinances found to be inconsistent and not in substantial conformity with this act shall be superseded pursuant to section 503. Appeals under this section may be brought before a court of competent jurisdiction.

Section 319. Rebuttable presumption.

(a) **Liability of operator.**—It shall be presumed as a rebuttable presumption of law that the operator of a regional facility is liable and responsible for all damages and radioactive contamination within three miles of the boundary of the regional facility without proof of fault, negligence or causation.

(b) **Defenses.**—In order to rebut the presumption of liability, the operator must affirmatively prove by clear and convincing evidence that the operator did not contribute to the damage, or, in the case of radioactive contamination, one of the following three defenses:

(1) The radioactive contamination existed prior to any disposal operations on the site as determined by a pre-operational survey.

(2) The landowner has refused to allow the operator access to conduct a pre-operational survey.

(3) The radioactive contamination occurred as a result of some cause other than regional facility operations.

Section 320. Protection from contamination.

(a) **Water supply.**—The operator shall restore or replace any water supply which has been found or presumed pursuant to section 319 to be contaminated with radioactive material as a result of operations at the regional facility.

(b) **Contamination in general.**—Any landowner experiencing radioactive contamination within three miles of the boundary of the regional facility may notify the department and request that an investigation be conducted. Within ten days of such notification, the department shall investigate any such claims and shall, within 60 days of the notification, make a determination. If the department finds that the radioactive contamination was caused by the operation of the regional facility or if it presumes the operator of a regional facility responsible for contamination, then it shall issue such orders to the operator as are necessary to abate the radioactive contamination and replacement of any contaminated water supply.

Section 321. Low-level waste compaction.

(a) **Siting regulations.**—No license or permit to construct, alter, own or operate a commercial low-level radioactive waste compactor shall be issued until the Environmental Quality Board has promulgated siting regulations for such facilities. No such license or permit shall be issued unless the applicant has demonstrated with clear and convincing evidence that the site selected for the commercial compactor satisfies the siting regulations. This subsection shall not apply to any commercial compactor facility which obtained a license from the United States Nuclear Regulatory Commission authorizing operation pursuant to the Atomic Energy Act of 1954 prior to the effective date of this act, provided that such compactor facility shall comply with all applicable Federal and State requirements relating to operations and monitoring and shall obtain all applicable State environmental permits. For purposes of this section, a commercial compactor is any compactor of low-level waste except:

- (1) One which compacts waste at the site of generation, including one situated on the premises of a hospital or research laboratory.
- (2) One which only compacts waste generated by the facility owner.
- (3) A compactor which compacts waste at the regional facility.

(b) **Nonexclusive.**—Nothing in this act shall preempt or prevent any political subdivision from enacting or enforcing ordinances otherwise within its powers to enact which are adopted pursuant to the political subdivisions' powers reserved under the act of January 8, 1960 (1959 P.L.2119, No.787), known as the Air Pollution Control Act, and other environmental protection statutes of this Commonwealth.

Section 322. Noncommercial low-level waste incinerators.

(a) **Standards and regulations.**—The department shall develop standards and siting regulations under this act for noncommercial low-level waste incinerators which shall include requirements for compliance with this act, the Atomic Energy Act of 1954, the Radiation Protection Act, the act of June 22, 1937 (P.L.1987, No.394), known as The Clean Streams Law, the act of January 8, 1960 (1959 P.L.2119, No.787), known as the Air Pollution Control Act, and the act of July 7, 1980 (P.L.380, No.97), known as the Solid Waste Management Act.

(b) **Existing facilities.**—Those facilities which are licensed under Federal law to incinerate low-level radioactive waste on the effective date of this act may continue to operate.

Section 323. Limitation on actions.

The provisions of any other statute to the contrary notwithstanding, actions for civil or criminal penalties under this act or civil actions arising from conduct regulated under this act may be commenced at any time within a period of 20 years from the date the alleged wrongdoing is discovered.

CHAPTER 5 ENFORCEMENT AND PENALTIES

Section 501. Unlawful conduct.

It shall be unlawful for any person:

- (1) To construct, alter, own or operate a low-level radioactive waste disposal facility without a license or in violation of a license or in violation of this act or the Radiation Protection Act.
- (2) To ship or transport low-level radioactive waste to the regional facility without first obtaining a permit as required by the act and any rule or regulation promulgated hereunder.
- (3) To generate, transport, handle, manage or dispose of low-level radioactive waste unless such person complies with this act, the Radiation Protection Act and other state and Federal statutes relating to environmental protection, radiological protection and the protection of the public health, safety and welfare, and with the regulations of the department and the terms and conditions of any applicable permit, license or order of the department or other appropriate state or Federal agency.
- (4) To deposit, inject, dump, spill, leak or place low-level radioactive waste so that low-level radioactive waste or a constituent of low-level

radioactive waste enters the environment, is emitted into the air or is discharged into the waters of the Commonwealth, in violation of State or Federal statutes.

(5) To refuse, hinder, obstruct, delay or threaten any agent or employee of the department or host municipality or host county inspector in the course of performance of any duty under this act, including, but not limited to, entry and inspection under any circumstances.

(6) To cause or assist in the violation of any provision of this act, any rule, regulation, order, permit condition or license condition of the department under this act.

(7) To incinerate low-level waste at a commercial incinerator.

Section 502. Inspection.

(a) **Authority.**—Host municipality and host county inspectors shall have the power to enter the regional facility, and the department or its duly authorized representatives shall have the power to enter each and every facility at any time for the purpose of inspection and the power to enter at any time upon any public or private property, building, premises or place, for the purpose of determining compliance with this act, any permit or license conditions or regulations or orders issued under this act. In the conduct of any investigation, the department or its duly authorized representatives shall have the authority to conduct tests and inspections and examine any book, record, document or other evidence related to the generation, management, transportation or disposal of low-level waste. In the conduct of any investigation, the host municipality inspector shall have the authority, at the regional facility, to conduct tests and inspections and examine any book, record, document or other evidence related to the generation, management, transportation or disposal of low-level waste.

(b) **Halt in operations.**—The host municipality and host county inspectors, as authorized under section 318(f)(5) and (6), shall have the authority to halt operation of the facility if the inspector determines there is an immediate threat to health and safety. This halt in operations shall remain in effect until the department evaluates the situation and determines whether there is a continuing need for the halt in operations. If the department determines there is no continuing need for the halt in operations, the host municipality has the right to appeal this determination to the Environmental Hearing Board, which shall consider the matter immediately.

(c) **Search warrant.**—An agent or employee of the department may apply for a search warrant, to an issuing authority, for the purposes of testing, inspecting or examining any radioactive material or any public or private property, building, premises, place, book, record or other evidence related to the generation, management, transport or disposal of low-level waste. The host municipality inspector may similarly apply for a search warrant to inspect at the regional facility. It shall be sufficient probable cause to show any of the following:

(1) The test, inspection or examination is pursuant to a general administrative plan to determine compliance with this act.

(2) The agent, employee or inspector has reason to believe that a violation of this act has occurred or may occur.

(3) The agent, employee or inspector has been refused access to the low-level waste, property, building, premises, place, book, record, document or other evidence related to the generation, management, transport or disposal of low-level waste, or has been prevented from conducting tests, inspections or examinations to determine compliance with this act.

(4) The host municipality or host county inspector has made a written complaint to the department.

(5) A landowner has experienced radioactive contamination within three miles of the boundary of the regional facility and he has notified the department pursuant to section 319.

Section 503. Conflicting laws.

Ordinances, resolutions or regulations of any agency or political subdivision of this Commonwealth relating to low-level waste shall be superseded by this act if such ordinances, resolutions or regulations are not in substantial conformity with this act and any rules or regulations or license requirements issued hereunder.

Section 504. Penalties.

(a) **Summary offense.**—Any person who violates any provisions of this act or any regulations or order promulgated or issued hereunder commits a summary offense and shall, upon conviction, be sentenced to pay a fine of not less than \$100 nor more than \$1,000 for each separate offense and in default thereof shall be imprisoned for a term of not more than 90 days. All summary proceedings under this act may be brought before any district justice or magistrate in the county where the offense was committed, and to that end jurisdiction is hereby conferred upon district justices and magistrates, subject to appeal by either party in the manner provided by law.

(b) **Misdemeanor.**—Any person who violates any provision of this act or any regulation or order promulgated or issued hereunder, within two years after having been convicted of any summary offense under this act, commits a misdemeanor of the third degree and shall, upon conviction, be sentenced to pay a fine of not less than \$1,000 nor more than \$25,000 for each separate offense or imprisonment in the county jail for a period of not more than one year, or both.

(c) **Felony.**—Any person who intentionally, knowingly or recklessly violates any provision of this act or any regulation or order of the department or any term or condition of any permit or license, and whose acts or omissions cause or create the possibility of a public nuisance or bodily harm to any person, commits a felony of the second degree and shall, upon conviction, be sentenced to pay a fine of not less than \$2,500 nor more than \$100,000 per day for each violation, or to a term of imprisonment of not less than one year nor more than ten years, or both.

(d) **Separate offense for each day.**—Each day of continued violation of any provisions of this act or any regulation or order promulgated or issued pursuant to this act or any term or condition of any permit or any license shall constitute a separate offense.

(e) Civil penalty.—

(1) In addition to proceeding under any other remedy available at law or in equity for a violation of this act or a regulation or order of the department promulgated or issued hereunder, the department may assess a civil penalty upon the person for the violation. This penalty may be assessed whether or not the violation was willful or negligent. The civil penalty shall not exceed \$25,000 for each violation.

(2) In determining the civil penalty, the department shall consider, where applicable, the willfulness of the violation, gravity of the violation, good faith of the person charged, history of the previous violations, danger to the public health and welfare, damage to the air, water, land or other natural resources of the Commonwealth or their uses, cost of restoration or abatement, savings resultant to the person in consequence of the violation and any other relevant facts.

(3) The person charged with the penalty shall have 30 days to pay the proposed penalty in full or, if the person wishes to contest either the amount of the penalty or the fact of the violation, to file within a 30-day period an appeal of the action with the Environmental Hearing Board. Failure to appeal within 30 days shall result in a waiver of all legal rights to contest the violation or the amount of the penalty.

(4) Civil penalties shall be payable to the Commonwealth of Pennsylvania and shall be collectible in any manner provided by law for collection of debts. If any person liable to pay a penalty neglects or refuses to pay the same after demand, the amount, together with interest and any costs that may accrue, shall be a lien in favor of the Commonwealth upon the property, both real and personal, of the person, but only after same has been entered and docketed of record by the prothonotary of the county where the property is situated. The department may, at any time, transmit to prothonotaries of the respective counties certified copies of all such liens, and it shall be the duty of each prothonotary to enter and docket the same of record in his office and to index the same as judgments are indexed.

Section 505. Enforcement and abatement.

(a) Public nuisance.—Any violation of this act or of any regulation or order of the department or of any term or condition of any license or permit issued under this act shall constitute a public nuisance. Any person committing the violation shall be liable for the costs of abatement of the nuisance. The Environmental Hearing Board is hereby given jurisdiction over actions to recover the costs of the abatement and civil penalties.

(b) Orders.—In addition to other remedies provided under this act or any other act, to aid in the enforcement of this act, the department may issue orders to persons as it deems necessary to protect health and safety and the environment. These orders may include an order modifying or revoking licenses or permits, orders to cease unlawful activities or other acts involving low-level waste that are determined by the department to be detrimental to the public health and safety, orders prohibiting access to the regional facility and such other orders as the department deems necessary to abate public nuisances. An order issued under this subsection shall take effect upon notice,

unless the order specifies otherwise. An appeal to the Environmental Hearing Board shall not automatically act as a supersedeas unless so granted by the board. It shall be the duty of any person to comply with any order issued under this subsection unless and until a supersedeas has been obtained. Any person who fails to comply with an order lawfully issued under this subsection shall be guilty of contempt and shall be punished in an appropriate manner by the Commonwealth Court, which court is hereby granted jurisdiction, upon application by the department.

(c) Injunction.—In addition to any other remedies provided for in this act, the department may institute a suit in equity in the name of the Commonwealth for an injunction to restrain a violation of this act or the regulations or order adopted or issued under this act or to restrain the maintenance or threat of a public nuisance. In any such proceeding the court shall, upon motion by the department, issue a prohibitory or mandatory preliminary injunction if it finds that the defendant is engaging in unlawful conduct or is engaged in conduct which is causing immediate and irreparable harm to the public or the environment. The Commonwealth shall not be required to furnish bond or other security in connection with such proceedings.

(d) Impoundment, etc.—The department shall have the authority to impound temporarily any low-level waste or to take other actions as are necessary to abate a public nuisance wherever the department believes that this action is necessary to protect the health and safety of the public and the environment.

(e) Emergency.—Whenever the department finds that an emergency exists requiring immediate action to protect the public health and safety or the environment, the department is authorized, without notice or hearing, to issue an order to any person reciting the existence of such emergency and requiring that appropriate action be taken to meet the emergency. Notwithstanding any provision of this act, such order shall be effective immediately, unless a supersedeas is granted by the Environmental Hearing Board.

Section 506. Construction of act.

The penalties and remedies prescribed by this act shall be deemed concurrent, and the existence of or exercise of any remedy shall not prevent the department or any person from exercising any other remedy at law or in equity. No provision of this act or any action taken by virtue of this act, including the granting of a permit or license, shall be construed as estopping the Commonwealth from proceeding in courts of law or equity to abate nuisances under existing law; nor shall this act in any other manner abridge or alter rights of action or remedies now or hereafter existing in equity or under the common law or statutory law, criminal or civil, exercised by the Commonwealth or any person to enforce their rights or to abate any nuisance, now or hereafter existing, in any court of competent jurisdiction.

Section 507. Right of citizen to intervene in proceedings.

Any citizen of this Commonwealth having an interest which is or may be adversely affected shall have the right on his own behalf, without posting bond, to intervene in any action brought pursuant to section 505(c).

Section 508. Citizen suits.

(a) **Authority to bring civil action.**—Except as provided in subsection (c), any affected person may commence a civil action on his own behalf against any person who is alleged to be in violation of this act.

(b) **Jurisdiction.**—The Environmental Hearing Board is hereby given jurisdiction over citizen suit actions brought under this section against the department. Actions against any other persons under this section may be taken in a court of competent jurisdiction. Such jurisdiction is in addition to any rights of action now or hereafter existing in equity, or under the common law or statutory law.

(c) **Notice.**—No action may be commenced under this section prior to 60 days after the plaintiff has given notice of the violation to the secretary, to the host municipality and to any alleged violator of the act, of other environmental protection acts, or of the regulation or order of the department which has allegedly been violated, or if the secretary has commenced and is diligently prosecuting an administrative action before the Environmental Hearing Board, or a civil or criminal action in a court of the United States or a state to require compliance with such permit, standard, regulation, condition, requirement, prohibition or order.

(d) **Award of costs.**—The Environmental Hearing Board or a court of competent jurisdiction, in issuing any final order in any action brought pursuant to subsection (a), may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the board determines such award is appropriate.

Section 509. Whistleblower provisions.

(a) **Adverse action prohibited.**—No employer may discharge, threaten or otherwise discriminate or retaliate against an employee regarding the employee's compensation, terms, conditions, location or privileges of employment because the employee or a person acting on behalf of the employee makes a good faith report or is about to report, verbally or in writing, to the employer or appropriate authority an instance of wrongdoing.

(b) **Discrimination prohibited.**—No employer may discharge, threaten or otherwise discriminate or retaliate against an employee regarding the employee's compensation, terms, conditions, location or privileges of employment because the employee is requested by an appropriate authority to participate in an investigation, hearing or inquiry held by an appropriate authority or in a court action.

(c) **Remedies.**—The remedies, penalties and enforcement procedures for violations of this section shall be provided in the act of December 12, 1986 (P.L.1559, No.169), known as the Whistleblower Law.

(d) **Definitions.**—As used in this section, the following words and phrases shall have the meanings given to them in this subsection:

"Appropriate authority." A Federal, state or local government body, agency or organization having jurisdiction over criminal law enforcement or regulatory violations; or a member, officer, agent, representative or supervisory employee of the body, agency or organization. The term includes, but is not limited to, the department, host county, host municipality or other public agency whose functions include public health and safety.

"Employee." A person who performs a service for wages or other remuneration under a contract of hire, written or oral, express or implied, for an employer.

"Employer." An operator of a low-level waste facility, a contractor developing such a facility or a contractor developing procedures or regulations associated with the Appalachian Compact low-level nuclear waste facility.

"Good faith report." A report of conduct defined in this section as wrongdoing which is made without malice or consideration of personal benefit and which the person making the report has reasonable cause to believe is true.

"Wrongdoing." A violation which is not of a merely technical or minimal nature of a Federal or state statute, regulation, license, permit or order relating to the operation of low-level waste facilities or relating to the preservation of the public health and safety in relation to such facilities.

CHAPTER 7 APPALACHIAN STATES LOW-LEVEL RADIOACTIVE WASTE COMMISSION

Section 701. Appointment and qualification of commissioners.

As an initial host state under the compact, Pennsylvania's delegation to the commission shall consist of five members. Upon passage of this act, the Governor shall immediately appoint four voting members and four alternates. Each of the members and alternates shall be appointed by and serve at the pleasure of the Governor and be confirmed by a majority vote of the members elected to the Senate. Each appointee shall be a resident and citizen of this Commonwealth at the time of his appointment and for the duration of his term. No appointee shall, for three years prior to appointment, have a financial interest in or be employed by the operator of any low-level waste disposal facility, a subsidiary of the operator, parent company of the operator, a subcontractor of the operator, or in any corporation that utilizes the facility for disposal of its wastes. No member or alternate shall accept employment from any regional facility operator, a subsidiary of the operator, parent company of the operator, a subcontractor of the operator, any corporation that utilizes the facility for disposal of its wastes, brokers or carriers during his term of office and three years after leaving office. In the event that a member or alternate resigns, the Governor shall, subject to Senate confirmation, appoint a replacement to serve. Following selection of the site of the regional facility, the Governor shall appoint a voting member and alternate who shall be residents of the host municipality. The Governor shall notify the commission in writing of the identities of the members and the alternates.

Section 702. Authority of the commission.

(a) General rule.—The commission is authorized:

(1) To enter into reciprocal contingency agreements with noncompact states or other regional boards for the emergency disposal of low-level waste generated outside the compact region. Any such agreement shall

include a provision that the quantity of waste for which the parties are responsible under the agreement shall be equal based on the volume of waste and/or total curie count.

(2) To establish regulations to specifically govern and define exactly what would constitute an emergency which requires the disposal of out-of-compact low-level waste at the regional facility.

(3) To determine whether an emergency exists outside the compact region and that a contingency agreement should be implemented.

(4) To request the General Assembly and the Governor to approve an extension of a reciprocal-contingency agreement, and to provide the date when out-of-compact waste disposal will cease under the agreement.

(b) Out-of-compact waste.—No agreement shall permit the disposal of out-of-compact low-level waste for a period exceeding four months, unless an extension is granted by the General Assembly or the Governor.

CHAPTER 9 MISCELLANEOUS PROVISIONS

Section 901. Annual report.

The department shall provide an annual report to the General Assembly detailing all the current activities of the Appalachian Low-Level Waste Compact, compact commissioners and facility operators. The department shall also include in the report a list of all low-level waste generators, brokers and carriers, the amounts of waste generated by each source by volume, toxicity, product and use, including curie content, hazardous life and radionuclide. A geographic breakdown shall also be included. The department shall also furnish financial statistics relating to all aspects of the Appalachian Compact and its associated facility. The department shall also furnish statistics relating to volume reduction, waste minimization, separation and related processing.

Section 902. Liberal construction.

The terms and provisions of this act are to be liberally construed so as to best achieve and effectuate the goals and purposes thereof.

Section 903. Construction with other laws.

(a) Other acts.—This act shall be construed in pari materia with the Appalachian States Low-level Radioactive Waste Compact and the Radiation Protection Act.

(b) Authority of department.—The authority given the department under this act over the regulation of low-level radioactive waste shall be construed as complementary to the department's authority over radiation sources established under the Radiation Protection Act. This act shall not be construed to limit the department's authority under the Radiation Protection Act to license the generation, management, handling or transportation of low-level waste.

Section 904. Appropriations.

(a) Initial funding of program.—It is the intent of the General Assembly to fund this program initially through annual General Fund appropriation for transfer to the Low-Level Waste Fund.

(b) Disposition of General Fund appropriation.—The funds remaining of the appropriation made to the department for the low-level radioactive waste control program under section 213 of the act of July 3, 1987 (P.L.459, No.9A), known as the General Appropriation Act of 1987, are hereby transferred to the Low-Level Waste Fund.

(c) Repayment of General Fund.—The sum appropriated under section 213 of the General Appropriation Act of 1987 for the low-level radioactive waste control program shall be repaid to the General Fund under section 315(c)(1)(i) of this act.

Section 905. Repeals.

(a) Absolute repeals.—The following acts and parts of acts are repealed:

Act of September 8, 1959 (P.L.807, No.302), entitled "An act empowering the Department of Health to regulate the burial of radioactive material and to issue permits therefor; and prescribing penalties."

Act of October 26, 1959 (P.L.1380, No.480), entitled "An act empowering the Commonwealth to acquire land and operate burial grounds for the disposal of radioactive materials."

(b) Inconsistent repeal.—The following acts and parts of acts are repealed insofar as they are inconsistent with this act:

Act of July 7, 1980 (P.L.380, No.97), known as the Solid Waste Management Act.

(c) Construction of section.—This section shall not be construed to repeal jurisdiction over radioactive wastes that are also hazardous wastes under the Solid Waste Management Act, and it is hereby declared to be the legislative intent of the Solid Waste Management Act to regulate such radioactive wastes that are also listed or characteristic hazardous wastes or are mixed with hazardous waste.

Section 906. Effective date.

This act shall take effect immediately.

APPROVED—The 9th day of February, A. D. 1988.

ROBERT P. CASEY

No. 1990-67

AN ACT

HB 406

Amending the act of April 9, 1929 (P.L.177, No.175), entitled "An act providing for and reorganizing the conduct of the executive and administrative work of the Commonwealth by the Executive Department thereof and the administrative departments, boards, commissions, and officers thereof, including the boards of trustees of State Normal Schools, or Teachers Colleges; abolishing, creating, reorganizing or authorizing the reorganization of certain administrative departments, boards, and commissions; defining the powers and duties of the Governor and other executive and administrative officers, and of the several administrative departments, boards, commissions, and officers; fixing the salaries of the Governor, Lieutenant Governor, and certain other executive and administrative officers; providing for the appointment of certain administrative officers, and of all deputies and other assistants and employees in certain departments, boards, and commissions; and prescribing the manner in which the number and compensation of the deputies and all other assistants and employees of certain departments, boards and commissions shall be determined," authorizing the Comptroller of the House of Representatives to make certain lapses; further providing for fees collected by administrative agencies; prohibiting the incarceration of civilian prisoners at military installations; requiring the Department of Transportation to do certain work on manhole covers, drains and other devices at the time a road is repaired or resurfaced at the cost of the utility, municipality or authority owner; authorizing the waiver of the realty transfer tax in certain cases by the Department of Revenue; further providing for the powers of the Department of General Services and the Department of Revenue; transferring the Pennsylvania Conservation Corps from the Department of Environmental Resources to the Department of Labor and Industry and continuing its existence; and making repeals.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Section 621 of the act of April 9, 1929 (P.L.177, No.175), known as The Administrative Code of 1929, is amended by adding a subsection to read:

Section 621. Lapsing of Funds.—***

(n) *During the first ten (10) days of the fiscal period beginning July 1, 1990, the Comptroller of the House of Representatives shall forward lapse documents to the State Treasurer for at least twenty-seven million dollars (\$27,000,000) of prior year continuing appropriations of the House of Representatives. This subsection shall expire September 30, 1990.*

Section 2. Section 602-A of the act is amended by adding clauses to read:

Section 602-A. Department of Agriculture.—The Department of Agriculture is authorized to charge fees for the following purposes and in the following amounts:

(11) *Bakery:*

(i) *License..... 35.00*

(12) *Cold Storage:*

| | |
|---|----------|
| (i) License..... | 35.00 |
| (13) Dessert: | |
| (i) License..... | 35.00 |
| (14) Nonalcoholic drinks: | |
| (i) License..... | 100.00 |
| (15) Inspection/registration of plants and trees: | |
| (i) Inspection per establishment..... | 40.00 |
| Section 3. Sections 603-A and 606-A of the act, added July 1, 1981 (P.L.143, No.48), are amended to read: | |
| Section 603-A. Department of Banking.—The Department of Banking is authorized to charge fees for the following purposes and in the following amounts: | |
| (1) Consumer discount companies: | |
| (i) Initial license..... | \$250.00 |
| (ii) Annual license renewal..... | 250.00 |
| (iii) Additional licenses for each business location..... | 250.00 |
| (2) Motor vehicle sales finance: | |
| (i) License for an installment seller of motor vehicles..... | 50.00 |
| (ii) License for a sales finance company..... | 200.00 |
| (iii) License for a collector-repossessor..... | 200.00] |
| (1) Consumer discount companies: | |
| (i) Initial license..... | \$500.00 |
| (ii) Additional licenses for each business location..... | 500.00 |
| (iii) Annual license renewal..... | 350.00 |
| (2) Motor vehicle sales finance: | |
| (i) Initial license for sales finance company..... | 500.00 |
| Annual license renewal..... | 350.00 |
| (ii) License for installment seller..... | 250.00 |
| Annual license renewal..... | 250.00 |
| (iii) Initial license collector-repossessor..... | 350.00 |
| Annual license renewal..... | 250.00 |
| (3) Pawnbroker: | |
| (i) Initial license for pawnbroker..... | 500.00 |
| Annual license renewal..... | 250.00 |
| (4) Money transmitter: | |
| (i) Initial license for money transmitter..... | 2,000.00 |
| Annual license renewal..... | 2,000.00 |
| (5) Secondary mortgage loan company: | |
| (i) Initial license for principal place of business and each branch office..... | 500.00 |
| Annual license renewal..... | 350.00 |
| (6) Secondary mortgage loan broker: | |
| (i) Initial license for principal place of business..... | 500.00 |
| Annual license renewal..... | 200.00 |
| (ii) Each branch office..... | 50.00 |
| Annual branch renewal..... | 25.00 |

(7) First Mortgage Banker:

| | |
|---|--------|
| (i) Initial license for principal place of business and each branch office..... | 500.00 |
| Annual license renewal..... | 350.00 |

(8) First mortgage broker:

| | |
|---|--------|
| (i) Initial license fee for principal place of business.... | 500.00 |
| Annual license renewal..... | 200.00 |
| (ii) Each branch office..... | 50.00 |
| Annual branch renewal..... | 25.00 |

Section 606-A. Department of Education.—The Department of Education is authorized to charge fees for the following purposes and in the following amounts:

(4) Private driver training school fees:

| | |
|----------------------------|---------|
| (i) Initial license..... | 100.00 |
| (ii) License renewals..... | 100.00] |
| (i) Initial license..... | 500.00 |
| (ii) License renewals..... | 300.00 |
| (iii) Instructor: | |
| (A) Initial..... | 30.00 |
| (B) Renewal..... | 20.00 |

(6) Private driver training schools vehicle identification registrations:

| | |
|----------------------------|-------|
| (i) Initial..... | 10.00 |
| (ii) Renewal/transfer..... | 5.00 |

Section 4. Section 607-A(1) and (2) of the act, added July 1, 1981 (P.L.143, No.48), are amended and the section is amended by adding clauses to read:

Section 607-A. Department of Environmental Resources.—The Department of Environmental Resources is authorized to charge fees for the following purposes and in the following amounts:

(1) Eating and drinking places:

| | |
|--|----------|
| (i) New establishments | |
| [(A) New establishments that are owner operated with a seating capacity of less than 50..... | \$ 30.00 |
| (B) All other new establishments..... | 100.00 |
| (ii) Renewal or change of ownership..... | 30.00 |
| (iii) Duplicate license for each additional business location..... | 5.00 |
| (iv) Temporary license..... | 1.00 |

(2) Certification of sewage and water treatment plant operators:

| | |
|---|---------|
| (i) Initial license..... | 20.00 |
| (ii) Annual license renewal..... | 3.00] |
| (A) New establishments that are owner operated with a seating capacity of less than 50..... | \$75.00 |
| (B) All other new establishments..... | 175.00 |

| | |
|--|--------|
| (ii) <i>Renewal or change of ownership</i> | 60.00 |
| (iii) <i>Duplicate license for each additional business location</i> | 10.00 |
| (iv) <i>Temporary license</i> | 10.00 |
| (2) <i>Certification of sewage and water treatment plant operators:</i> | |
| (i) <i>Initial license</i> | 20.00 |
| (ii) <i>Annual license renewal</i> | 5.00 |
| * * * | |
| (6) <i>Sewage enforcement officer certification:</i> | |
| (i) <i>Examination</i> | 25.00 |
| (7) <i>Planning module review fee:</i> | |
| (i) <i>Minor subdivisions</i> | 50.00 |
| (ii) <i>Major subdivisions</i> | 250.00 |

Section 5. Section 609-A of the act is amended by adding a clause to read:

Section 609-A. Department of Health.—The Department of Health is authorized to charge fees for the following purposes and in the following amounts:

* * *

(5) *Home health care agency:*

| | |
|--------------------------|--------|
| (i) <i>License</i> | 200.00 |
|--------------------------|--------|

Section 6. Sections 612-A and 614-A of the act, added July 1, 1981 (P.L.143, No.48), are amended to read:

Section 612-A. Insurance Department.—The Insurance Department is authorized to charge fees for the following purposes and in the following amounts:

| | |
|--|---|
| (1) Insurance companies, associations or exchanges: | |
| (i) Valuation of life insurance policies based on a per thousand dollar value of such insurance..... | \$.01 with a minimum charge of \$10.00 |
| (ii) Filing copy of charter or amendment of a domestic, foreign or alien company, association or exchange..... | [35.00] 150.00 |
| (iii) Filing annual statement or other statement of a domestic, foreign or alien company, association or exchange..... | [50.00] 125.00 |
| (iv) License fee for a domestic, foreign or alien company, association or exchange or any duplicate license..... | [15.00] 40.00 |
| (v) License for a rating organization..... | 25.00 |

| | |
|--|--|
| (vi) Examination of a domestic, foreign and alien company..... | Expense of examination |
| (vii) Filing and review of merger agreements of domestic, foreign and alien companies..... | [200.00] 280.00 |
| (viii) Filing and review of conversion plan from mutual company to stock company..... | [200.00] 1,200.00 |
| (ix) Filing and review of conversion plan from stock company to mutual company..... | [200.00] 1,200.00 |
| (x) Filing and review of proposed exchange of shares of stock..... | 300.00 |
| (xi) Filing and review of material in connection with a proposed acquisition or offer to acquire capital stock of a domestic insurance company or insurance holding company..... | [300.00] 1,200.00 |
| (xii) Filing and review of registration statement by an insurance member of an insurance holding company | 200.00 |
| (xiii) For each amendment to such registration statement..... | [50.00] 80.00 |
| (xiv) Issuance of a certificate of compliance, deposit or surety..... | 10.00 |
| (xv) Any other certificate issued by the department... | 10.00 |
| (xvi) Filing and review of qualifications of an insurer to issue variable annuities..... | [100.00] 210.00 |
| (xvii) Certification of each copy of any paper filed with department..... | [10.00] 10.00 plus .10 per page |
| (xviii) Copy of any paper filed with department on a per/page basis..... | .25 |
| (xix) Copy of annual statement pages..... | 1.00 |
| (xx) Domestic company license application..... | 1,200.00 |
| (xxi) Foreign/alien license application..... | 1,200.00 |
| (xxii) Qualification of insurer to issue variable life contracts..... | 210.00 |
| (xxiii) Return of increase or decrease or stated capital | 80.00 |
| (xxiv) Reinsurance and assumption agreement..... | 150.00 |
| (xxv) Request to pay extraordinary dividends..... | 65.00 |
| (xxvi) Surplus line binding authority agreement..... | 65.00 |

| | |
|---|---------------------------|
| (xxvii) Duplicate of agency or broker record..... | 10.00 |
| (2) Agents and brokers: | |
| (i) Each listing for written examination of applicants for licenses as agents, brokers, public adjusters or public adjuster solicitors..... | 10.00 |
| (ii) For license of an applicant qualified through prior examination..... | 5.00 |
| (iii) For agent's license..... | 10.00 |
| (iv) For annual renewal of agent's license or for a replacement or duplicate of such license..... | 10.00 |
| (v) For each additional variable annuity power in an agent's license on a per annuity basis..... | 5.00 |
| (vi) Individual insurance broker license..... | 20.00 |
| (vii) Insurance broker license in the name of a corporation or copartnership..... | 25.00 |
| (viii) For each broker's license issued in the name of qualified individual active members or officers of a copartnership or corporation on a per license basis.. | 25.00 |
| (ix) For certification of an agent or broker license.... | 10.00 |
| (x) Surplus line agent: | |
| (A) Initial license..... | 100.00 |
| (B) Annual renewal..... | 100.00 |
| (C) Annual certificate of eligibility..... | 10.00 |
| (D) Examination fee..... | 10.00 |
| (3) Fraternal benefit societies: | |
| (i) Filing copy of charter of a domestic, foreign or alien society, in addition to any fee for filing such charter with the Department of State..... | 35.00 |
| (ii) The filing of an annual or other statement..... | [50.00] 125.00 |
| (iii) License to society or certified copy or duplicate thereof | [15.00] 40.00 |
| (iv) Each listing for written examination of an applicant for license as an agent..... | 10.00 |
| (v) Each applicant for such licenses for which an examination is not required..... | 5.00 |
| (vi) Agent's license for each domestic or foreign society, for life or accident and health lines, or any combination thereof, regardless of the number of powers, excepting variable annuities, for which licensed..... | 10.00 |
| (vii) Copy of any paper filed in the department..... | 10.00 |
| department, per page..... | .25 |
| (viii) Any certificate required..... | 10.00 |
| (ix) Making examinations..... | Expense of examination |

| | |
|--|---|
| (x) Filing and reviewing agreements of merger of domestic, foreign and alien societies..... | 200.00 |
| (xi) Filing and review of a plan of conversion from a fraternal benefit society to a mutual company and for filing each amendment to registration statement. | 200.00 |
| (xii) For issuing a certificate of compliance, deposit or surety or any other certificate required to be issued by the department..... | 10.00 |
| (xiii) Filing and review of qualification of a society to issue variable annuities..... | [100.00] 210.00 |
| (xiv) Certificate of an agent's license or for duplicate or replacement licenses..... | 10.00 |
| (xv) Any other certificate issued by the division of agents..... | 10.00 |
| (xvi) Each renewal of license as an individual agent... | 10.00 |
| (xvii) Each additional variable annuity power in such license..... | 5.00 |
| (4) License and annual renewal for manager or exclusive general agent for domestic insurance company..... | 200.00 |
| (5) Motor vehicle physical damage appraiser: | |
| (i) Initial license..... | 20.00 |
| (ii) Annual renewal..... | 10.00 |
| (6) Professional bondsman license: | |
| (i) Initial license..... | 100.00 |
| (ii) Annual renewal..... | 50.00 |
| (7) Public adjustors and solicitors for companies: | |
| (i) Public adjustor: | |
| (A) Initial license..... | 100.00 |
| (B) Annual renewal..... | 100.00 |
| (ii) Public adjustor solicitor: | |
| (A) Initial license..... | 50.00 |
| (B) Annual renewal..... | 50.00 |
| (8) Workmen's Compensation Security Fund assessment: | |
| (i) Stock company, mutual carrier and reciprocal exchange..... | 1% of annual net written premiums |

Section 614-A. Liquor Control Board.—The Pennsylvania Liquor Control Board is authorized to charge fees for the following purposes and in the following amounts:

| | |
|---|----------|
| [(1) Applications for hotel, restaurant liquor licenses: | |
| (i) Application filing fee..... | \$ 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee: | |

| | |
|---|--|
| (A) Municipalities, population less than 1,500..... | 225.00 |
| (B) Municipalities, except townships, population 1,500 - 9,999..... | 275.00 |
| (C) Municipalities, townships, population 1,500 - 11,999..... | 275.00 |
| (D) Municipalities, except townships, population 10,000 - 49,999..... | 375.00 |
| (E) Municipalities, townships, population 12,000 - 49,999..... | 375.00 |
| (F) Municipalities, population 50,000 - 99,999..... | 475.00 |
| (G) Municipalities, population 100,000 - 149,999.. | 575.00 |
| (H) Municipalities, population 150,000 or more.... | 675.00 |
| (iv) Transfer fee..... | 45.00 |
| (2) Malt or brewed beverages: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee: | |
| (A) Municipalities, population less than 10,000.... | 175.00 |
| (B) Municipalities, population 10,000 - 49,999..... | 225.00 |
| (C) Municipalities, population 50,000 - 99,999..... | 275.00 |
| (D) Municipalities, population 100,000 - 149,999.. | 325.00 |
| (E) Municipalities, population 150,000 or more.... | 375.00 |
| (iv) Transfer fee..... | 45.00 |
| (3) Applications for clubs (except catering) liquor: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 125.00 |
| (iv) Transfer fee..... | 45.00 |
| (4) Malt beverage: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 100.00 |
| (iv) Transfer fee..... | 45.00 |
| (5) Registration of agents; distillery certificate broker: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (6) Amusement permit liquor: | |
| (i) Permit fee | 1/5 annual liquor li- cense fee, 40.00 mini- mum |
| (7) Amusement permit malt beverage: | |

| | |
|---|--|
| (i) Permit fee..... | 1/5 annual liquor li- cense fee, 40.00 mini- mum |
| (8) Bailee for hire: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 125.00 |
| (9) Bonded warehouse: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 125.00 |
| (10) Brewery license: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 1,025.00 |
| (iv) Transfer fee..... | 45.00 |
| (11) Distillery license: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly on volume)..... | 2,525.00 |
| (12) Distillery certificate broker permit: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) Permit fee..... | 125.00 |
| (13) Distillery of historical significance: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 2,525.00 |
| (14) Importer's liquor license: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 125.00 |
| (iv) Transfer fee..... | 45.00 |
| (15) Importer's warehouse license: | |
| (i) Application filing fee, each warehouse..... | 30.00 |
| (ii) Renewal filing fee, each warehouse..... | 30.00 |
| (iii) License fee, each warehouse..... | 30.00 |
| (16) Limited winery: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 275.00 |
| (17) Malt beverage distributor: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |

| | |
|--|--|
| (iii) License fee..... | 425.00 |
| (iv) Transfer fee..... | 45.00 |
| (18) Malt beverage importing distributor: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 925.00 |
| (iv) Transfer fee..... | 45.00 |
| (19) Performing arts facility license: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 675.00 |
| (iv) Transfer fee..... | 45.00 |
| (20) Public service license liquor: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee, railroad cars, per car..... | 30.00 |
| (iv) License fee, steamship or vessel, per vessel..... | 125.00 |
| (v) License fee, per air carrier..... | 125.00 |
| (vi) Transfer fee, railroad car, steamship or vessel or per air carrier..... | 45.00 |
| (21) Public service license malt beverage: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee, railroad cars, per car..... | 20.00 |
| (iv) License fee, steamship or vessel, per vessel..... | 75.00 |
| (v) License fee, per air carrier..... | 25.00 |
| (vi) Transfer fee, railroad cars, steamship or vessel or per air carrier..... | 45.00 |
| (22) Sacramental wine license: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 125.00 |
| (iv) Transfer fee..... | 45.00 |
| (23) Sales permit; reciprocal: | |
| (i) Permit fee..... | To be set by board not to exceed 5,000.00 |
| (24) Special occasion permit: | |
| (i) Permit fee, liquor or malt or brewed beverages, per day..... | 15.00 |
| (25) Stadium restaurant liquor license: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 675.00 |
| (26) Stadium and arena malt beverage license: | |

| | |
|---|----------|
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 125.00 |
| (27) Sunday sales liquor: | |
| (i) Permit fee..... | 200.00 |
| (28) Sunday sales malt beverage: | |
| (i) Permit fee..... | 200.00 |
| (29) Trade show and convention liquor license: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 675.00 |
| (iv) Transfer fee..... | 45.00 |
| (30) Transporter for hire; Class A: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 125.00 |
| (31) Transporter for hire; Class B: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 75.00 |
| (32) Vendor's permit: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) Permit fee..... | 125.00 |
| (33) Winery: | |
| (i) Application filing fee..... | 30.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 275.00 |
| (34) To be credited to the State Store Fund from each of the fees collected for hotel, restaurant and club liquor licenses and retail dispensers' licenses both malt and brewed beverages..... | 75.00] |
| (1) Hotel, restaurant liquor licenses: | |
| (i) Application filing fee..... | \$700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee: | |
| (A) Municipalities, population less than 1,500..... | 250.00 |
| (B) Municipalities, except townships, population 1,500 - 9,999..... | 300.00 |
| (C) Municipalities, townships, population 1,500 - 11,999..... | 300.00 |
| (D) Municipalities, except townships, population 10,000 - 49,999..... | 400.00 |
| (E) Municipalities, townships, population 12,000 - 49,999..... | 400.00 |
| (F) Municipalities, population 50,000 - 99,999..... | 500.00 |

| | |
|--|------------------------|
| (G) Municipalities, population 100,000 - 149,999.. | 600.00 |
| (H) Municipalities, population 150,000 or more.... | 700.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (2) Hotel or retail dispenser - eating place malt or brewed beverage licenses: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee: | |
| (A) Municipalities, population less than 10,000.... | 200.00 |
| (B) Municipalities, population 10,000 - 49,999..... | 250.00 |
| (C) Municipalities, population 50,000 - 99,999..... | 300.00 |
| (D) Municipalities, population 100,000 - 149,999.. | 350.00 |
| (E) Municipalities, population 150,000 or more.... | 400.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (3) Clubs (except catering) liquor licenses: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 150.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (4) Club malt or brewed beverage licenses: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 125.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (5) Registration of agents; distillery certificate broker: | |
| (i) Application filing fee..... | 65.00 |
| (ii) Renewal filing fee..... | 65.00 |
| (6) Amusement permit liquor: | |
| (i) Permit fee..... | 1/5 annual license fee |
| (7) Amusement permit malt beverage: | |
| (i) Permit fee..... | 1/5 annual license fee |
| (8) Bailee for hire: | |

| | |
|---|----------|
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 265.00 |
| (9) Bonded warehouse: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 265.00 |
| (10) Brewery license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 1,425.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (11) Distillery license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly on volume)..... | 5,400.00 |
| (12) Distillery certificate broker permit: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) Permit fee..... | 175.00 |
| (13) Distillery of historical significance: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 5,400.00 |
| (14) Importer's liquor license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 265.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (15) Importer's warehouse license: | |
| (i) Application filing fee, each warehouse..... | 700.00 |
| (ii) Renewal filing fee, each warehouse..... | 30.00 |
| (iii) License fee, each warehouse..... | 65.00 |
| (16) Limited winery: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 385.00 |
| (17) Malt beverage distributor: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |

| | |
|--|--|
| (iii) License fee..... | 600.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (18) Malt beverage importing distributor: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 1,350.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (19) Performing arts facility license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 675.00 |
| (20) Public service liquor license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 40.00 |
| (iii) License fee, railroad cars, per car..... | 65.00 |
| (iv) License fee, steamship or vessel, per vessel..... | 260.00 |
| (v) License fee, per air carrier..... | 260.00 |
| (vi) Transfer fee, railroad car, steamship or vessel or per air carrier..... | 55.00 |
| (21) Public service license malt beverage: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 40.00 |
| (iii) License fee, railroad cars, per car..... | 40.00 |
| (iv) License fee, steamship or vessel, per vessel..... | 160.00 |
| (v) License fee, per air carrier..... | 55.00 |
| (vi) Transfer fee, railroad cars, steamship or vessel or per air carrier..... | 55.00 |
| (22) Sacramental wine license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 265.00 |
| (iv) Transfer fee..... | 45.00 |
| (23) Sales permit; reciprocal: | |
| (i) Permit fee..... | To be set by board not to exceed 5,000.00 |
| (24) Special occasion permit: | |
| (i) Permit fee, liquor or malt or brewed beverages, per day: | |

| | |
|--|--------|
| (A) No investigation..... | 30.00 |
| (B) Investigation..... | 85.00 |
| (25) Stadium restaurant liquor license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 700.00 |
| (26) Stadium and arena malt beverage license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 150.00 |
| (27) Sunday sales liquor: | |
| (i) Permit fee..... | 300.00 |
| (28) Sunday sales malt beverage: | |
| (i) Permit fee..... | 300.00 |
| (29) Trade show and convention liquor license: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 675.00 |
| (iv) Transfer fee: | |
| (A) Person to person..... | 650.00 |
| (B) Place to place..... | 550.00 |
| (C) Double transfer..... | 700.00 |
| (30) Transporter for hire; Class A and C: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 265.00 |
| (31) Transporter for hire; Class B: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee..... | 160.00 |
| (32) Vendor's permit: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) Permit fee..... | 265.00 |
| (33) Winery: | |
| (i) Application filing fee..... | 700.00 |
| (ii) Renewal filing fee..... | 30.00 |
| (iii) License fee (prorated quarterly)..... | 385.00 |
| (34) To be credited to the State Stores Fund from each of the fees collected for hotel, restaurant and club liquor licenses and retail dispensers' licenses both malt and brewed beverages..... | 100.00 |
| (35) Malt or brewed beverage brand registration: | |
| (i) Filing fee (per brand)..... | 75.00 |

Section 7. Section 615-A of the act is amended by adding clauses to read:

Section 615-A. Pennsylvania Securities Commission.—The Pennsylvania Securities Commission is authorized to charge fees for the following purposes and in the following amounts:

| | |
|---|-----------------------------|
| (4) Agent application fee: | |
| (i) Initial, renewal, and transfer..... | 50.00 |
| (5) Broker dealer application fee: | |
| (i) Initial and renewal..... | 250.00 |
| (6) Section 205 - coordination filing fee: | |
| (i) Less than \$10,000,000..... | 500.00 |
| (ii) \$10,000,000 or more..... | 750.00 |
| (7) Retention fees for withdrawal of registration statement: | |
| (i) Under section 205..... | 300.00 |
| (8) Filing an application for exemption from registration for an offering of securities to be sold under section 203(d): | |
| (i) Less than \$100,000..... | 50.00 |
| (ii) \$100,000 or more but less than \$1,000,000..... | 150.00 |
| (9) Investment advisor's application fee: | |
| (i) Initial and renewal..... | 200.00 |
| (10) Registration by an open-end or closed-end investment company: | |
| (i) Issuer seeking to raise more than \$4,000,000 but less than \$100,000,000..... | 1/20 of 1% plus 1,000.00 |
| (ii) Issuer seeking to raise \$100,000,000 or more..... | 1/20 of 1% plus 1,500.00 |
| (11) Securities exemption fees: | |
| (i) Section 202(g)..... | 50.00 |
| (ii) Section 203(n)..... | 50.00 |

Section 8. Section 616-A of the act, added July 1, 1981 (P.L.143, No.48), is amended to read:

Section 616-A. Pennsylvania State Police.—The Pennsylvania State Police are authorized to charge fees for the following purposes and in the following amounts:

| | |
|--|------------------|
| (1) Accident Reports: | |
| (i) Certified copy of record of investigation of a vehicle accident..... | \$8.00 |
| (2) Private security agent lethal weapon: | |
| (i) Application..... | [45.00] 50.00 |
| (ii) Certification..... | [25.00] 30.00 |
| (iii) Renewal..... | [25.00] 30.00 |

- (3) *Escort services:*
- (i) *Escort services for spent nuclear shipments.....* 25.00/hr.
+ .50/mile
 - (ii) *Rail shipments.....* 30.00/hr.
per officer

- (4) *Bank alarm panel:*
- (i) *Bank alarm connection rate.....* 300.00
per year

- (5) *Fingerprint records check:*
- (i) *Private detective licensing - fingerprint records
check request from clerk of courts.....* 17.50

- (6) *Firearm and name check:*
- (i) *Noncriminal justice agencies and individuals.....* 10.00

Section 9. The act is amended by adding sections to read:

Section 618-A. Department of State.—The Department of State is authorized to charge fees for the following purposes and in the following amounts:

- (1) *Bureau of Commissions, Elections and Legislation:*
- (i) *Application fee for notary commission.....* \$40.00
 - (ii) *Domestic corporations for profit.*
 - (A) *Articles of incorporation, letters patent or like
instrument incorporating a corporation or asso-
ciation.....* 85.00
 - (B) *Articles of conversion or like instrument.....* 85.00
 - (C) *Each ancillary transaction.....* 45.00
 - (iii) *Foreign corporation:*
 - (A) *Certificates of authority or like qualification
to do business.....* 45.00
 - (B) *Amended certificate of authority or like
change in qualification to do business.....* 175.00
 - (C) *Domestication.....* 85.00
 - (iv) *Individual fictitious names:*
 - (A) *Registration.....* 30.00
 - (B) *Each ancillary transaction.....* 30.00
 - (v) *Corporate fictitious names:*
 - (A) *Registration.....* 45.00
 - (B) *Each ancillary transaction.....* 45.00
 - (vi) *Trademarks, emblems, union labels, description
of bottles and like matters:*
 - (A) *Registration.....* 30.00
 - (B) *Each ancillary transaction.....* 30.00
 - (vii) *Uniform Commercial Code:*
 - (A) *Financing statement.....* 10.00
 - (B) *Each ancillary transaction.....* 10.00
 - (C) *Search per debtor named.....* 10.00
 - (viii) *Certification fees:*

- (A) For certifying copies of any document or paper on file, if the department furnished the copy..... 10.00
- (B) For issuing any other certificate of the Secretary of the Commonwealth or the Department of State..... 15.00
- (ix) Report of record search:
 - (A) For preparing and providing a written or photocopy, or both, report of a record search, the fee specified in subclause (viii)(A) hereof, if any, plus \$10.00

Section 619-A. Department of Transportation.—The Department of Transportation is authorized to charge fees for the following purposes and in the following amounts:

- (1) Driving record:
 - (i) Certified driving record..... \$10.00
- (2) Uncollectible check fee:
 - (i) Uncollectible check penalty fee..... 20.00

Section 1417. Incarceration of Civilian Prisoners Prohibited.—Civilian prisoners, either pending trial or appeal or after sentencing, shall not be incarcerated at any military reservation, base or facility within Pennsylvania, whether owned by the Federal or State Government, on a temporary or permanent basis.

Section 10. Section 2005 of the act is amended by adding a clause to read:

Section 2005. General Road Improvement.—The Department of Transportation shall have the power, and its duty shall be:

* * *

(g) To take responsibility for bringing all manhole covers, drains and other surface devices up to the grade level or other appropriate level at the time any State highway is reconstructed, repaired or resurfaced.

(1) The department shall give advance notice of the project to the utility owner and offer the owner the opportunity to undertake the improvements required under this clause. Such advance notice shall be commensurate with the nature and scope of the improvements to be performed by the utility owner within such time as may be determined by the department.

(2) If the owner does not make the improvements within such time as may be determined by the department, the department may perform or cause to be performed the work as required under such terms as may be acceptable to the department. In construing the provisions of this section, time shall be deemed to be of the essence. Costs incurred may be charged to the owner if the owner is not entitled to reimbursement under section 412 or 412.1 of the act of June 1, 1945 (P.L.1242, No.428), known as the "State Highway Law."

(3) If the owner is a municipality, the department may deduct the costs from any liquid fuel tax payments which shall become due the municipality, but only after notice to the municipality of the amount of the costs and a request for the payment of same.

(4) *If the owner is a municipal authority, the department shall have the authority not to issue the municipal authority any highway occupancy permit if the costs incurred by the department for performing the work remain unpaid.*

(5)(i) *Nothing in this subsection shall be construed to impair, suspend, contract, enlarge, extend or affect in any manner the powers and duties of the Pennsylvania Public Utility Commission as provided in 66 Pa.C.S. §§ 2702 (relating to construction, relocation, suspension and abolition of crossings), 2703 (relating to ejection in crossing cases) and 2704 (relating to compensation for damages occasioned by construction, relocation or abolition of crossings).*

(ii) *For purposes of this clause, the term "utility owner" or "owner" shall not include any utility regulated by the Pennsylvania Public Utility Commission.*

Section 11. *The act is amended by adding sections to read:*

Section 2216. Pennsylvania Conservation Corps.—*The Pennsylvania Conservation Corps shall be a part of the Department of Labor and Industry. The department shall have the power, and its duty shall be, to administer the act of July 2, 1984 (P.L.561, No.112), known as the "Pennsylvania Conservation Corps Act." The Pennsylvania Conservation Corps and the program under the "Pennsylvania Conservation Corps Act" shall expire June 30, 1994.*

Section 2401.1a. Restrictions on Powers of the Department of General Services.—*The provisions of section 2401.1(19) shall not apply to additional capital projects in the category of public improvement projects to be acquired or constructed by the Department of General Services for the program development and design of prototypical one thousand-cell facilities to be used in construction of a facility in Clearfield County and other State prison projects itemized in the act of July 1, 1990 (P.L.315, No.71), known as the "Prison Facilities Improvement Act."*

Section 2504. Space on Form for Contributions.—(a) *The Department of Revenue shall provide a space on the face of the individual income tax return form whereby an individual may voluntarily designate a contribution of any amount desired to the United States Olympic Committee, Pennsylvania Division.*

(b) *The amount so designated by an individual on the income tax return form shall be deducted from the tax refund to which such individual is entitled and shall not constitute a charge against the income tax revenues due the Commonwealth.*

(c) *The Department of Revenue shall determine annually the total amount designated pursuant to this section, less reasonable administrative costs, and shall report such amount to the State Treasurer, who shall transfer such amount from the General Fund to the United States Olympic Committee, Pennsylvania Division.*

Section 2505. Waiver of Realty Transfer Tax.—*The Department of Revenue may, in the case of a transfer of real property from the Commonwealth to a nonprofit organization where that organization will utilize the*

property for a drug or alcohol abuse rehabilitation program, waive the collective of the realty transfer tax imposed under Article XI-C of the act of March 4, 1971 (P.L.6, No.2), known as the "Tax Reform Code of 1971."

Section 12. There are transferred from the Department of Environmental Resources to the Department of Labor and Industry all of the following:

- (1) The property, supplies, equipment and records being used in the administration of the act of July 2, 1984 (P.L.561, No.112), known as the Pennsylvania Conservation Corps Act.
- (2) The personnel employed in the administration of the Pennsylvania Conservation Corps Act.
- (3) The unexpended balances of appropriations, allocations and other funds available under the Pennsylvania Conservation Corps Act.
- (4) The rights and obligations of contracts entered into under the Pennsylvania Conservation Corps Act.

Section 13. The regulations of the Department of Environmental Resources promulgated under the act of July 2, 1984 (P.L.561, No.112), known as the Pennsylvania Conservation Corps Act, shall remain valid until amended or deleted by the Department of Labor and Industry.

Section 14. Section 13 of the act of July 2, 1984 (P.L.561, No.112), known as the Pennsylvania Conservation Corps Act, is repealed.

Section 15. The following acts or parts of acts are repealed insofar as they relate to fee payments:

Section 3 of the act of May 22, 1933 (P.L.912, No.168), referred to as the Bakery Law.

Section 6 of the act of April 6, 1937 (P.L.200, No.51), known as the Pawnbrokers License Act.

Section 2 of the act of May 20, 1949 (P.L.1511, No.455), referred to as the Cold Storage Warehouse Food Law.

Section 10 of the act of January 18, 1952 (1951 P.L.2128, No.605), referred to as the Private Driver Education or Training School Act.

Section 5 of the act of August 21, 1953 (P.L.1323, No.373), known as The Notary Public Law.

Section 3 of the act of July 5, 1957 (P.L.485, No.276), entitled "An act for the protection of the public health and welfare, and the prevention of fraud and deception in the manufacture or sale of packaged non-alcoholic drinks; prohibiting the sale, offering or exposing for sale, exchange or giving away thereof unless registered; providing for licensing of places of manufacture; regulating the manufacture, compounding, labeling, sanitation and ingredients of non-alcoholic drinks, and the display of presses of fruit; prohibiting misbranding and adulteration of registered and non-registered non-alcoholic drinks; authorizing promulgation of rules, regulations and standards, and providing for penalties and for injunctions in certain cases, and the disposition of fees and fines."

Section 7 of the act of September 1, 1965 (P.L.420, No.215), known as The Frozen Dessert Law.

Section 6 and as much of section 6(a) as reads "but such revenues shall not exceed one hundred sixty thousand dollars (\$160,000) for any one year" of the act of September 1, 1965 (P.L.436, No.221), known as the Pennsylvania Commercial Feed Law of 1966.

Section 6 of the act of September 2, 1965 (P.L.490, No.249), referred to as the Money Transmission Business Licensing Law.

The act of January 24, 1966 (1965 P.L.1535, No.537), known as the Pennsylvania Sewage Facilities Act.

The act of July 12, 1972 (P.L.769, No.182), entitled "An act relating to certain documents, prescribing the fees for the Department of State and certain public officers, permitting the filing of certain documents appropriating the exclusive right to a corporate name, repealing the excise tax on the capital stock of domestic corporations and repealing inconsistent acts."

Section 602(b) and (d) of the act of December 5, 1972 (P.L.1280, No.284), known as the Pennsylvania Securities Act of 1972.

Section 807 of the act of July 19, 1979 (P.L.130, No.48), known as the Health Care Facilities Act.

Section 5 of the act of December 12, 1980 (P.L.1179, No.219), known as the Secondary Mortgage Loan Act.

Section 402(d)(1) of the act of July 10, 1984 (P.L.688, No.147), known as the Radiation Protection Act.

Section 5 of the act of December 22, 1989 (P.L.687, No.90), known as the Mortgage Bankers and Brokers Act.

Section 16. The following acts and parts of acts are repealed insofar as they are inconsistent with this act:

Section 12 of the act of June 23, 1982 (P.L.597, No.170), known as the Wild Resource Conservation Act.

Sections 2 and 3 of the act of July 2, 1984 (P.L.561, No.112), known as the Pennsylvania Conservation Corps Act.

Section 17. If this act is enacted after July 1, 1990, sections 2 (section 602-A), 3 (sections 603-A and 606-A), 4 (section 607-A(1) and (2)), 5 (section 609-A), 6 (sections 612-A and 614-A), 7 (section 615-A), 8 (section 616-A) and 9 (section 618-A) shall apply retroactively to July 1, 1990.

Section 18. The provisions of section 2504 shall apply to taxable years beginning January 1, 1990, and January 1, 1991, and shall expire thereafter unless reenacted.

Section 19. This act shall take effect immediately.

APPROVED—The 1st day of July, A. D. 1990.

ROBERT P. CASEY

No. 1992-180

AN ACT

HB 2216

Amending the act of April 9, 1929 (P.L.177, No.175), entitled "An act providing for and reorganizing the conduct of the executive and administrative work of the Commonwealth by the Executive Department thereof and the administrative departments, boards, commissions, and officers thereof, including the boards of trustees of State Normal Schools, or Teachers Colleges; abolishing, creating, reorganizing or authorizing the reorganization of certain administrative departments, boards, and commissions; defining the powers and duties of the Governor and other executive and administrative officers, and of the several administrative departments, boards, commissions, and officers; fixing the salaries of the Governor, Lieutenant Governor, and certain other executive and administrative officers; providing for the appointment of certain administrative officers, and of all deputies and other assistants and employees in certain departments, boards, and commissions; and prescribing the manner in which the number and compensation of the deputies and all other assistants and employees of certain departments, boards and commissions shall be determined," providing for the submission to the General Assembly of information relating to tax expenditures; transferring certain powers, duties, personnel, appropriations, equipment and other materials from the Secretary of Revenue to the State Treasurer; imposing fees on certain nuclear facilities; further providing for powers of the Secretary of General Services, for certain contracts by the Secretary of Transportation, for machinery, equipment, lands and buildings relating to airports, for the sale of certain land by the Department of Transportation and for exemption for certain conveyances; providing for Department of Corrections capital projects; providing for storage and handling of propane gas and for voluntary contributions to the United States Olympic Committee; further providing for the utilization of the Capitol Annex; and making repeals.

It is the intent of section 624 of the act to provide a mechanism which will enable the General Assembly to better determine those programs, activities and groups which are receiving public support subsidies as a result of tax expenditures. The General Assembly recognizes that the present budgeting system fails to accurately and totally reflect the true level of budgetary support for such programs due to such tax expenditures and that, as a result, undetermined amounts of indirect expenditures are escaping public or legislative scrutiny. The loss of potential revenue also causes a narrowing of tax bases which in turn forces higher tax rates on the remaining taxpayers.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1: The act of April 9, 1929 (P.L.177, No.175), known as The Administrative Code of 1929, is amended by adding a section to read:

Section 624. Tax Expenditures.—(a) *As used in this section, "tax expenditure" shall mean a reduction in revenue that would otherwise be collected by the Commonwealth as the result of an exemption, reduction, deduction, limitation, exclusion, tax deferral, discount, commission, credit, preferential rate or preferential treatment under any of the following:*

(1) *Sales tax imposed by Article II of the act of March 4, 1971 (P.L.6, No.2), known as the "Tax Reform Code of 1971."*

(2) *Personal income tax imposed by Article III of the "Tax Reform Code of 1971."*

(3) *Corporate net income tax imposed by Article IV of the "Tax Reform Code of 1971."*

(4) *Capital stock/franchise tax imposed by Article VI of the "Tax Reform Code of 1971."*

(5) *Bank shares tax imposed by Article VII of the "Tax Reform Code of 1971."*

(6) *Title insurance and trust companies shares tax imposed by Article VIII of the "Tax Reform Code of 1971."*

(7) *Insurance premiums tax imposed by Article IX of the "Tax Reform Code of 1971."*

(8) *Utility gross receipts tax imposed by Article XI of the "Tax Reform Code of 1971."*

(9) *Liquid fuels and fuel use taxes.*

(10) *Realty transfer tax imposed by Article XI-C of the "Tax Reform Code of 1971."*

(11) *Cigarette tax imposed by Article XII of the "Tax Reform Code of 1971."*

(12) *Mutual thrift institutions tax imposed by Article XV of the "Tax Reform Code of 1971."*

(13) *Oil company franchise tax imposed by 75 Pa.C.S. Ch. 95 (relating to taxes for highway maintenance and construction).*

(14) *Motor carriers road tax imposed by 75 Pa.C.S. Ch. 96 (relating to motor carriers road tax).*

(15) *Inheritance tax imposed by Article XXI of the "Tax Reform Code of 1971."*

(16) *Unemployment compensation contributions imposed by the act of December 5, 1936 (2nd Sp.Sess., 1937 P.L.2897, No.1), known as the "Unemployment Compensation Law."*

(17) *Utility realty tax imposed by Article XI-A of the "Tax Reform Code of 1971."*

(18) *Gross receipts tax on motor carriers imposed by the act of June 22, 1931 (P.L.694, No.255), referred to as the Motor Carriers Gross Receipts Tax Act.*

(19) *Marine insurance underwriting profits tax imposed by the act of May 13, 1927 (P.L.998, No.486), entitled "An act imposing a tax for State purposes on marine insurance underwriting profits, and providing for the collection of such tax."*

(20) *Co-operative agricultural association corporate net income tax imposed pursuant to the act of May 23, 1945 (P.L.893, No.360), known as the "Co-operative Agricultural Association Corporate Net Income Tax Act."*

(21) *Electric co-operative corporation tax imposed by the act of June 21, 1937 (P.L.1969, No.389), known as the "Electric Cooperative Corporation Act."*

(22) *Malt beverage tax imposed by Article XX of the "Tax Reform Code of 1971."*

(23) *Spirituous and vinous liquors tax imposed by the act of December 5, 1933 (Sp.Sess., P.L.38, No.6), known as the "Spirituous and Vinous Liquor Tax Law."*

(24) *Vehicle registration fees imposed pursuant to 75 Pa.C.S. (relating to vehicles).*

(25) *Motorbus road tax imposed by 75 Pa.C.S. Ch. 98 (relating to motorbus road tax).*

(26) *General exemptions:*

(i) *The exemptions granted pursuant to section 15 of the act of March 31, 1949 (P.L.372, No.34), known as "The General State Authority Act of one thousand nine hundred forty-nine."*

(ii) *The exemption granted pursuant to 40 Pa.C.S. § 6307(b) (relating to exemptions applicable to certificated professional health care service corporations).*

(iii) *The exemptions granted pursuant to section 23 of the act of May 28, 1937 (P.L.955, No.265), known as the "Housing Authorities Law."*

(iv) *The exemptions granted pursuant to section 15 of the act of May 2, 1945 (P.L.382, No.164), known as the "Municipality Authorities Act of 1945."*

(v) *The exemptions granted pursuant to section 15 of the act of June 5, 1947 (P.L.458, No.208), known as the "Parking Authority Law."*

(vi) *The exemptions granted pursuant to section 17 of the act of April 18, 1949 (P.L.604, No.128), known as the "State Highway and Bridge Authority Act."*

(vii) *The exemptions granted pursuant to section 14 of the act of July 5, 1947 (P.L.1217, No.498), known as the "State Public School Building Authority Act."*

(27) *Statutory exemptions, reductions, deductions, limitations, exclusions, tax deferrals, discounts, commissions, credits, preferential rates or preferential treatments established after the effective date of this section.*

(b) *The term shall not include any statutory exemption, reduction, deduction, limitation, exclusion, tax deferral, discount, commission, credit, preferential rate or preferential treatment for local tax purposes.*

(c) *At the time required for the submission of the budget to the General Assembly under section 613, the Governor shall also submit to the General Assembly a tax expenditure plan for not less than the prior fiscal year, the current fiscal year, this budget year and the four (4) succeeding fiscal years, which plan shall include the following information:*

(1) *The actual or estimated revenue loss to the Commonwealth caused by each tax expenditure in each fiscal year covered by the plan.*

(2) *The actual or estimated cost of administering and implementing each tax expenditure for each fiscal year covered by the plan.*

(3) *The actual or estimated number and description, in reasonable detail, of taxpayers benefiting from each tax expenditure in each fiscal year covered by the plan.*

(4) *The purpose of each tax expenditure in terms of desired accomplishments.*

(d) *The Governor may also submit to the General Assembly an assessment of each tax expenditure based on whether or not each tax expenditure has been successful in meeting the purpose for which it was enacted and on whether each tax expenditure is the most fiscally effective means of achieving its purpose.*

(e) *Contents of the tax expenditure plan shall be as follows:*

(1) *For the first fiscal year in which a tax expenditure plan is required, the plan need only provide the required information for tax expenditures itemized in subsection (a)(1), (5), (6), (7), (12), (16) and (19).*

(2) *For the second year in which a tax expenditure plan is required, the plan need only provide the required information for the tax expenditures itemized in subsection (a)(1), (3), (4), (5), (6), (7), (8), (12), (16), (17), (19), (20) and (21).*

(3) *For the third year in which a tax expenditure plan is required, the plan need only provide the required information for the tax expenditures itemized in subsection (a)(1), (2), (3), (4), (5), (6), (7), (8), (9), (12), (13), (14), (16), (17), (18), (19), (20), (21) and (24).*

(4) *For the fourth year in which a tax expenditure plan is required, the plan shall provide the required information for all tax expenditures itemized in subsection (a).*

(f) *All data in the tax expenditure plan outlined in subsection (c) shall be revised and updated every two years.*

(g) *The Secretary of the Budget may obtain the information required for compliance with this section from all State agencies in like manner as provided for budget information under this article.*

(h) *The Secretary of the Budget is hereby authorized to obtain such data as may be needed for compliance with this section from the appropriate local government officials.*

(i) *The General Assembly recognizes that the exemption from taxation accorded religious institutions is founded on principles of church-state separation, and nothing in this section is intended to express or imply that tax exemption constitutes subsidization of the religious activities of such institutions, nor shall this section be construed to authorize the imposition of any additional requirements on such institutions relating to tax exemption.*

(j) *The initial two (2) tax expenditure plans required under this section shall be deemed in compliance with this section if the tax expenditure plan consists, at a minimum, of the tax expenditures reported by the Governor to the General Assembly for fiscal year 1992-1993.*

Section 2. *The act is amended by adding sections to read:*

Section 1105. Transfer of Powers and Duties Relating to Abandoned and Unclaimed Property from the Secretary of Revenue.—*The powers and duties of the Secretary of Revenue under Article XIII.1 of the act of April 9, 1929 (P.L.343, No.176), known as "The Fiscal Code," are hereby transferred to the State Treasurer.*

Section 1106. Transfer of Personnel, Appropriations, Records, Equipment and Other Materials Involved with Abandoned and Unclaimed Property.—(a) All personnel which the State Treasurer deems necessary, allocations, equipment, other than the mainframe computer and computer terminals which shall be subject to negotiations between the State Treasurer and the Secretary of Revenue regarding transfer, files, records, contracts, agreements, obligations and other materials which are used, employed or expended in connection with the powers, duties or functions of the Secretary of Revenue under Article XIII.1 of the act of April 9, 1929 (P.L.343, No.176), known as "The Fiscal Code," and which are transferred by section 1105 to the State Treasurer are hereby transferred from the Secretary of Revenue with the same force and effect as if the appropriations had been made to the State Treasurer, the materials had been the property of the State Treasurer in the first instance and as if the contracts, agreements and obligations had been incurred or entered into by the State Treasurer.

(b) The personnel, appropriations, equipment and other items and materials transferred by this section shall include an appropriate portion of the general administrative, overhead and supporting personnel, appropriations, equipment and other materials of the Secretary of Revenue and shall also include, where applicable, Federal grants and funds and other benefits from any Federal program.

(c) All personnel transferred pursuant to this section shall retain any civil service employment status assigned to them.

Section 1904-A.2. Nuclear Facility Fees.—(a) Each person who has received from the Nuclear Regulatory Commission a nuclear power reactor facility construction permit or operating license for nuclear facilities located in this Commonwealth shall pay to the Department of Environmental Resources within one hundred twenty (120) days of the effective date of this section, for the fiscal year 1992-1993, a fee of one hundred thousand dollars (\$100,000) and by July 1, 1993, for the 1993-1994 fiscal year and by July 1 of each succeeding fiscal year thereafter, a fee of four hundred thousand dollars (\$400,000) for each nuclear power plant site, regardless of the number of nuclear power reactors, to continue existing programs or establish new programs relating to the licensing, construction, surveillance, monitoring, emergency planning and response, operation or decommissioning of nuclear power reactor facilities and the general administrative costs for these activities, as provided for in the act of July 10, 1984 (P.L.688, No.147), known as the "Radiation Protection Act."

(b) A person licensed by the Nuclear Regulatory Commission to possess but not operate the following nuclear power reactors shall be exempt from the nuclear facility fee requirements of subsection (a): Saxton Nuclear Experimental Power Station, Peach Bottom Atomic Power Station, Unit 1 and Three Mile Island Nuclear Generating Station, Unit 2.

(c) Any person in violation of the nuclear facility fee requirements of this section shall be subject to the penalties and enforcement provisions of sections 308 and 309 of the "Radiation Protection Act."

(d) Fees and penalties received under this section shall be deposited in the Radiation Protection Fund established under section 403(a) of the "Radiation Protection Act" and are hereby appropriated to the Department of Environmental Resources on a continuing nonlapsing basis solely for the purpose of carrying out its powers and duties under the "Radiation Protection Act" relating to licensing, construction, surveillance, monitoring, emergency planning and response, operation or decommissioning of nuclear power reactor facilities and the general administrative costs for these activities.

(e) In addition to the particular records and accounts specified in the "Radiation Protection Act," the Department of Environmental Resources shall, at all times, maintain additional records and accounts in such form and manner as will allow detailed review, examination and audit, by appropriate, qualified Department of Environmental Resources personnel or by the Auditor General, of all monetary transactions involving the Radiation Protection Fund created under section 403(a) of the "Radiation Protection Act."

(f) Within one hundred twenty (120) days following June 30 of the fiscal year 1992-1993 and each fiscal year thereafter, the Department of Environmental Resources shall make available to each person who has paid fees and penalties into the Radiation Protection Fund, during such fiscal year, a report of the results of a financial audit of all monetary transactions within the Radiation Protection Fund during the preceding fiscal year. The auditing shall be performed in accordance with Federally accepted auditing standards compatible with the most intensive practices of the Department of the Auditor General. These audits may be performed by the Department of the Auditor General in lieu of being performed by the Department of Environmental Resources. The report shall be in sufficient form and detail as to demonstrate and verify that fees and penalties deposited into the Radiation Protection Fund have been expended in accordance with the limitations contained in this section.

(g) For the purposes of this section only, a nuclear power plant site shall be deemed to be the location of one or more nuclear power reactors per site which have not been officially decommissioned and dismantled pursuant to applicable Federal law.

Section 3. Section 2001.1 of the act, added May 6, 1970 (P.L.356, No.120), is amended to read:

Section 2001.1. Certain Contracts by the Secretary.—The secretary shall enter into all necessary contracts and agreements with the proper agencies of any government, Federal, State and/or political subdivision and/or any private agency and shall do all other things necessary and proper in order to obtain any benefits afforded under the provisions of any act of the United States Congress, the General Assembly of the Commonwealth of Pennsylvania and/or any governing body of any political subdivision of the Commonwealth of Pennsylvania, and also the governing body of any private agency for any purpose connected in any way with the Department of Transportation of the Commonwealth of Pennsylvania. *The secretary is autho-*

rizied to hold the Federal Government harmless from damages due to construction, operation and maintenance of emergency streambank protection projects under section 103(j) of the Water Resources Development Act of 1986 (Public Law 99-662, 33 U.S.C. § 2213(j)), except for damages due to the fault or negligence of the Federal Government or its contractors.

Section 4. Section 2003(e)(1) and (7) of the act, amended December 7, 1979 (P.L.478, No.100), are amended to read:

Section 2003. Machinery, Equipment, Lands and Buildings.—The Department of Transportation in accord with appropriations made by the General Assembly, and grants of funds from Federal, State, regional, local or private agencies, shall have the power, and its duty shall be:

* * *

(e) (1) To acquire, by gift, purchase, condemnation or otherwise, land in fee simple or such lesser estate or interest as it shall determine, in the name of the Commonwealth, for all transportation purposes, including marking, rebuilding, relocating, widening, reconstructing, repairing and maintaining State designated highways and other transportation facilities, and to erect on the land thus acquired such structures and facilities, including garages, storage sheds or other buildings, as shall be required for transportation purposes. *[Land] Except for acquisitions for airport and airport-related purposes, land shall not be acquired for any capital project unless the project is itemized in an approved capital budget. Notwithstanding any other provision of this or any other act, when the department seeks to take by appropriation real property or an interest in real property which the department intends to use for other than operating right-of-way for facilities such as maintenance buildings and construction facilities and such real property or interest therein belongs to a railroad, the department shall show by clear and convincing evidence that the activity contemplated on the site proposed to be appropriated could not have been conducted economically at an alternate location. Notwithstanding anything to the contrary contained in this or any other act, the term "transportation purposes" as used herein shall include acquisitions for all airport and airport-related purposes, and the procedures of this act shall apply to all such acquisitions.*

* * *

(7) Any other provisions of this act to the contrary notwithstanding, the department may sell at public sale any land acquired by the department if the secretary determines that the land is not needed for present or future transportation purposes:

(i) *Improved land shall first be offered at its fair market value as determined by the department to other public agencies which demonstrate a public purpose for the land unless the land is located in a county of the second class A not governed under a home rule charter. If not transferred to a public agency or if located in a county of the second class A not governed under a home rule charter, the improved land occupied by a tenant of the department shall [first] then be offered to the tenant at its fair market value as determined by the department, except that if the tenant is the person from whom the department acquired the land, it shall be offered to the tenant at*

the acquisition price, less costs, expenses and reasonable attorneys' fees incurred by the person as a result of the acquisition of the land by the department. If there is no tenant and the person from whom the department acquired the land did not receive a replacement housing payment under section 602-A of the "Eminent Domain Code," or under former section 304.3 of the act of June 1, 1945 (P.L.1242, No.428), known as the "State Highway Law," the land to be sold shall first be offered to such person at the acquisition price, less costs, expenses and reasonable attorneys' fees incurred by the person as a result of the acquisition of the land by the department. *As used in this subclause and subclause (ii), the term "public agency" shall include authorities and political subdivisions.*

(ii) *Unimproved land shall first be offered at its fair market value as determined by the department to other public agencies which demonstrate a public purpose for the land unless the land is located in a county of the second class A not governed under a home rule charter. If not transferred to a public agency or if located in a county of the second class A not governed under a home rule charter, the unimproved land shall [first] then be offered to the person from whom it was acquired at its acquisition price, less costs, expenses and reasonable attorneys' fees incurred by the person as a result of the acquisition of the land by the department, if the person still retains title to land abutting the land to be sold. If the land abutting the land to be sold has been conveyed to another person, the land to be sold shall first be offered to that person at its fair market value as determined by the department.*

(iii) Notice of the offer described in either subclause (i) or (ii) shall be sent by certified mail, or, if notice cannot be so made, in the manner required for "in rem" proceedings. The offeree shall have one hundred twenty (120) days after receipt of notice to accept the offer in writing.

(iv) Revenue from any sale of land acquired with motor license funds shall be deposited in the Motor License Fund.

* * *

Section 5. The act is amended by adding a section to read:

Section 2217. Above-Ground Refrigerated Low-Pressure Storage and Handling of Propane.—*The Department of Labor and Industry shall make, promulgate and enforce regulations setting forth minimum general standards for the design, installation and construction of above-ground refrigerated low-pressure storage facilities for propane. Said regulations issued under the authority of this act and the act of December 27, 1951 (P.L.1793, No.475), referred to as the Liquefied Petroleum Gas Act, shall be such as are reasonably necessary for the protection of the health, welfare and safety of the public and persons using such materials and shall be in substantial conformity with the generally accepted standards of safety concerning the same subject matter.*

Section 6. Section 2401.1 of the act is amended by adding a paragraph to read:

Section 2401.1. Specific Powers of the Department of General Services.—*In addition to all other powers and duties set forth in this act, the Department of General Services shall have the power, and its duty shall be:*

* * *

(21) To delegate at the discretion of the Secretary of General Services to a State-related institution in the Commonwealth system of higher education the performance on behalf of the Commonwealth of some or all of the powers and duties to plan, design, construct, administer and manage any public improvement project which has been statutorily authorized by the Commonwealth for such institution and the furnishing and equipping thereof, subject to such reasonable, necessary and appropriate conditions as may be mutually agreed upon between the department and such institution.

Section 7. Section 2401.1a of the act, added July 1, 1990 (P.L.277, No.67), is amended to read:

Section 2401.1a. Restrictions on Powers of the Department of General Services.—(a) The provisions of section 2401.1(19) shall not apply to additional capital projects in the category of public improvement projects to be acquired or constructed by the Department of General Services for the program development and design of prototypical one thousand-cell facilities to be used in construction of a facility in Clearfield County and other State prison projects itemized in the act of July 1, 1990 (P.L.315, No.71), known as the "Prison Facilities Improvement Act."

(b) *Capital projects in the category of public improvement projects specifically itemized for the Department of Corrections in section 3(1) of the act of December 20, 1990 (P.L.1472, No.223), known as the "Capital Budget Project Itemization Act for 1990-1991," are hereby authorized to be acquired, constructed or used by the Department of General Services, its successor or assigns, notwithstanding any provision of law providing for or regulating zoning or land use planning or any zoning ordinance, land use ordinance, building code or other regulation adopted or enacted by a political subdivision under the authority of any statute or under the authority of any home rule charter authorized and adopted under any statute or the Constitution of Pennsylvania.*

Section 8. The act is amended by adding a section to read:

Section 2402.1. Utilization of Capitol Annex.—(a) *The Department of General Services shall hereby grant exclusive use of the Capitol Annex Building, also known as the Old Museum Building, to the House of Representatives.*

(b) *The Speaker of the House of Representatives shall allocate the space in the Capitol Annex Building, also known as the Old Museum Building, for such legislative purposes as he deems necessary.*

(c) *Notwithstanding any other provision of law to the contrary, the Capitol Annex Building, also known as the Old Museum Building, shall be used for the legislative purposes of the House of Representatives and not for administrative offices.*

(d) *The Department of General Services shall commence and complete the repair and renovation of the Capitol Annex Building, also known as the Old Museum Building, on an expedited basis.*

Section 9. Section 2409-A of the act, added February 25, 1982 (P.L.92, No.34), is amended to read:

Section 2409-A. Exemption for Certain Conveyances.—(a) This article shall not apply to a conveyance by The General State Authority where a resolution authorizing such conveyance was adopted by the board of directors of the authority on or before July 1, 1981.

(b) *Notwithstanding the provisions of this act, including without limitation this article or any other act to the contrary, the Department of General Services is authorized to convey, with the approval of the Governor, any project within the meaning of the act of March 31, 1949 (P.L.372, No.34), known as "The General State Authority Act of one thousand nine hundred forty-nine," which was conveyed and transferred by resolution of The General State Authority and under the authority of the act of July 22, 1975 (P.L.75, No.45), entitled "An act amending the act of April 9, 1929 (P.L.177, No.175), entitled 'An act providing for and reorganizing the conduct of the executive and administrative work of the Commonwealth by the Executive Department thereof and the administrative departments, boards, commissions, and officers thereof, including the boards of trustees of State Normal Schools, or Teachers Colleges; abolishing, creating, reorganizing or authorizing the reorganization of certain administrative departments, boards, and commissions; defining the powers and duties of the Governor and other executive and administrative officers, and of the several administrative departments, boards, commissions, and officers; fixing the salaries of the Governor, Lieutenant Governor, and certain other executive and administrative officers; providing for the appointment of certain administrative officers, and of all deputies and other assistants and employes in certain departments, boards, and commissions; and prescribing the manner in which the number and compensation of the deputies and all other assistants and employes of certain departments, boards and commissions shall be determined,' creating the Department of General Services and defining its functions, powers and duties; and transferring certain functions, records, equipment, personnel and appropriations from the Department of Property and Supplies and The General State Authority to such department," to the Department of General Services, provided that:*

(1) The grantee is an institution of higher education located in this Commonwealth.

(2) The project was constructed by The General State Authority on behalf of the grantee.

(3) The consideration for each conveyance shall be based upon either the outstanding principle and interest indebtedness of the project or the total cost of the project adjusted to its present value as determined by the Department of General Services in consultation with the Secretary of the Budget.

(4) All costs of the transaction are borne by the grantee.

(5) No part of the consideration or transaction costs are paid with General Fund moneys or Capital Facilities Fund moneys.

(6) No conveyance shall be made under the authority of this subsection to an institution of the State System of Higher Education.

(c) *Notwithstanding the provisions of this act, including without limitation this article or any other act to the contrary, the Department of General*

Services is authorized to convey, with the approval of the Governor, to The Pennsylvania State University, the University of Pittsburgh, Temple University or Lincoln University any project which The General State Authority or the Department of General Services constructed on behalf of the grantee, provided that:

(1) All outstanding principal and interest indebtedness of the project has been retired.

(2) All costs of the transaction are borne by the university.

(3) The university shall pay one dollar (\$1.00) for each project transferred.

(4) No part of the transaction costs is paid with General Fund moneys or Capital Facilities Fund moneys.

(5) The deed of conveyance shall contain a clause that the property conveyed shall be used for educational purposes by the grantee, and, if at any time the grantee or its successor in function conveys the property or permits the property to be used for any purpose other than those specified in this section, the title to the property shall immediately revert to and revest in the Commonwealth of Pennsylvania.

Section 10. Section 2504 of the act is repealed.

Section 11. The act is amended by adding a section to read:

Section 2506. Space on Form for Contributions.—(a) The Department of Revenue shall provide a space on the face of the individual income tax return form whereby an individual may voluntarily designate a contribution of any amount desired to the United States Olympic Committee, Pennsylvania Division.

(b) The amount so designated by an individual on the income tax return form shall be deducted from the tax refund to which such individual is entitled and shall not constitute a charge against the income tax revenues due the Commonwealth.

(c) The Department of Revenue shall determine annually the total amount designated pursuant to this section, less reasonable administrative costs, and shall report such amount to the State Treasurer, who shall transfer such amount from the General Fund to the United States Olympic Committee, Pennsylvania Division.

(d) This section shall expire December 31, 1995.

Section 12. The provisions of section 2506 of the act shall apply to taxable years beginning January 1, 1993, through and including January 1, 1995.

Section 13. All moneys from the conveyances authorized by this act shall be deposited into the Capital Debt Fund.

Section 14. The conveyances authorized by this act shall be exempt from all taxes, imposts, fees and costs relating to such conveyances which are levied, imposed or chargeable by any taxing authority as long as the documents necessary to effect such conveyances are recorded prior to January 1, 1994.

Section 15. Section 624 of the act shall apply to the budget submitted for the fiscal year next commencing after one year from the effective date of this act and to each fiscal year thereafter.

Section 16. The transfer of personnel, appropriations, records, equipment and other materials under section 1106 of the act shall be completed no later than 180 days after the effective date of this act.

Section 17. (a) Section 402(b) of the act of July 10, 1984 (P.L.688, No.147), known as the Radiation Protection Act, is repealed.

(b) The following acts and parts of acts are repealed to the extent specified:

Article XIII.1 of the act of April 9, 1929 (P.L.343, No.176), known as The Fiscal Code, is repealed insofar as it is inconsistent with this act.

Section 315 of the act of March 4, 1971 (P.L.6, No.2), known as the Tax Reform Code of 1971, is repealed as obsolete.

The provisions of the act of July 10, 1984 (P.L.688, No.147), known as the Radiation Protection Act, (except section 402(b) which is repealed absolutely) are repealed insofar as they are inconsistent with this section.

Section 18. This act shall take effect immediately.

APPROVED—The 18th day of December, A. D. 1992.

ROBERT P. CASEY

Program Description

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11.0 SUMMARY

1.0 INTRODUCTION

The Commonwealth of Pennsylvania has established itself as a regulatory leader in the area of radiation protection and nuclear safety. This has resulted from an active state-level Radiation Protection (RP) Program and numerous significant events and initiatives that have contributed to the Commonwealth attaining this leadership role. A summary of the major areas of regulatory investigations and initiatives applicable to this application and other significant programmatic radiation protection experience include: radium worker protection in the 1940s and 1950s; investigation of the Gulf Accelerator accident in 1967; fallout monitoring from the 1960s; early x-ray protection efforts beginning in the 1970s related to diffraction units and mammography; nuclear and energy research and subsequent decommissioning at Quehanna, Shippingport, Saxton, Peach Bottom Unit 1 reactors; the response and recovery with the Three Mile Island Unit-2 reactor accident; the discovery of high radon levels in residential homes in 1984; the low-level radioactive waste disposal site development efforts in the 1990s; the plethora of complex decommissioning and decontamination projects of state and U.S. Nuclear Regulatory Commission (NRC) licensed facilities in the late 1990s to present; and, other prominent radiation protection projects in recent years (e.g., healing arts screening with x-rays, solid waste radiation monitoring, tritium monitoring at landfills and power plants, etc.)

Section 274 of the Atomic Energy Act (42 U.S.C 2021) (AEA) authorizes states to assume certain regulatory functions that would otherwise be the responsibility of the NRC. This originally included the licensing of byproduct material, source material and small quantities of special nuclear material. The mechanism by which a state assumes such responsibilities, is an official "Agreement" between the NRC and the Governor of the state. Before a state can become an "Agreement State," the Governor must certify that the state has a program for the control of radioactive material and respective radiological hazards, and the state's program is adequate to protect the public health and safety. In addition, the NRC must determine that the state's program is in accord with the requirements of Subsection (o) of Section 274; and is in all other respects compatible with the NRC's program for the regulation of the materials covered by the proposed agreement, and is adequate to protect the public health and safety with respect to such materials. In the summer of 2005, the AEA was amended to allow the NRC regulatory authority over naturally occurring and accelerator produced materials (NARM), which the Commonwealth currently regulates. Thus, the Pennsylvania Agreement will cover the continued control of NARM. To become an Agreement State, there must also be state legislation authorizing the Governor to enter into such an Agreement. That authority is contained in the Commonwealth's Radiation Protection Act, Act 1984-147. This Act instructs the Commonwealth to 'enter into agreement with the federal government for the licensing of radioactive materials.' Therefore, Pennsylvania has a statutory obligation to become an Agreement State.

As formally outlined in a 1995 letter from Governor Ridge to the NRC, the Commonwealth of Pennsylvania intends to assume responsibility for regulating byproduct material, source material, special nuclear material in quantities not sufficient to form a critical mass, and if needed in the future, the licensing of a low-level radioactive waste (LLRW) disposal facility – and thus become an Agreement State (AS). In this application the Commonwealth has included the statutes, regulations, a state RP Program description and other information needed to demonstrate that the Pennsylvania satisfies all federal

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requirements and guidance for becoming an Agreement State, and is prepared and qualified to assume regulatory authority for byproduct material as defined in 42 U.S.C. 2014 (e)(1), any future redefinition of byproduct material to include NARM, source material, special nuclear material in quantities not sufficient to form a critical mass, and any permanent disposal of LLRW containing any of these materials. At this time, there is no intent to license sealed source manufacturers or uranium processing facilities. The application consists of the Governor's certification, and copies of all current statutes and regulations under which the Commonwealth will administer its radioactive materials regulatory program. This narrative presents a description of the state RP Program organization, management, current practices, capabilities, procedures, and proposed activities of the Commonwealth relative to a complete radiation protection program and AS activities. It is important to note that the NRC will retain the regulatory authority over all nuclear power plants, research reactors, sealed source and device manufacturers, uranium recovery operations, all federal facilities, and any facilities with special nuclear materials in quantities sufficient to form a critical mass.

1.1 Radiation Protection Program Objectives

It is important to note that the Commonwealth's RP Program is mature, and has had full authority over NARM and other equally, if not more, hazardous sources of radiation for decades. For example, the Bureau of Radiation Protection (BRP) has licensed radium-226 and positron emitting (PET) radionuclides since the 1970s, and more recently, has begun licensing high-energy medical and industrial accelerators. For decades these licensing and inspection programs have regulated medical and industrial uses of these radioactive material and x-ray sources, and effectively protected the public and environment. As the Agreement State program is implemented, the primary objective of the program will be to continue the high degree of protection for public health, safety and welfare of the citizens of Pennsylvania, as well as the environment. To accomplish these objectives, certain essential features have been built into the regulatory program. As has been the case for decades, BRP has been designated, within the Department of Environmental Protection (DEP or Department), to implement a regulatory program so that radioactive materials are used in a safe and acceptable manner in order to protect the health and safety of the citizens (workers and public) of Pennsylvania from excessive or harmful radiation exposure. In the development of the documentation for an acceptable Agreement State program, BRP reviewed the NRC's handbook and procedure for processing an Agreement (i.e., SA-700), considers the following elements to be essential:

1. **Necessary Statutory Authority:** The Commonwealth must have the statutory authority necessary to fulfill its responsibilities to protect citizens and the environment.
2. **Compatible Regulations:** Regulations must be developed which describe the requirements necessary to protect public health and safety and be compatible with NRC with respect to radioactive materials.
3. **Technically Capable Staff:** The quality of any technical program is determined by the capabilities of its staff. The Agreement State program, therefore, must have a well trained and qualified staff of technical and scientific capability, in sufficient numbers to implement the RPP effectively.
4. **Technical Resources:** The Agreement State program must be able to utilize technical resources available within the DEP, and if needed, external consultants and support agencies. Advisory committees have and will continue to be used to provide guidance to the RPP.
5. **Procedures:** Technically correct and compatible procedures for licensing, inspection, and enforcement must be in place in order to administer an effective program.

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6. **Adequate Emergency Response Capabilities:** The RPP must be capable of effectively responding to and mitigating any radiological emergencies that may arise.
7. **Equipment:** The RPP must have the necessary radiation measuring instrumentation and laboratory facilities.
8. **Adequate Funding:** The Agreement State program must be adequately funded in order to implement the RPP, to recruit and retain quality staff, purchase instrumentation and equipment, and administer all aspects of the program effectively.
9. **Administrative Support:** The Agreement State program must have the necessary administrative support to function effectively and efficiently. In addition, the necessary procedures and equipment to communicate and analyze data must be available, e.g., administrative, accounting, legal, information technology, data processing, word processing capabilities, etc.
10. **Consistency and Quality Control:** Personnel in the Agreement State program must be adequately trained in Pennsylvania and NRC regulations, guidance, standards and procedures for uniform administration of the licensing and inspection program.
11. **Implementation Approach:** Although strict enforcement action must be taken when necessary, the RPP must portray a positive and cooperative service attitude to licensees and the general public, be proactive in outreach, and take the necessary steps to assure that the needs of Pennsylvania citizens and licensees are met. BRP has the cooperation of other state and federal organizations involved with radioactive materials to assure effective use of resources and to share information and knowledge.

1.2 Statutory Authority

The Pennsylvania General Assembly has enacted a number of laws over the years to enable the Commonwealth to regulate sources of radiation, LLRW, and provide adequate oversight, environmental surveillance and emergency response for the state's nuclear power plants (see RP Program statutes). In 1984, as a result of the TMI accident, a new and comprehensive radiation protection statute was drafted and enacted. This statute, Radiation Protection Act 1984-147, also dictated the Commonwealth enter into an agreement with the federal government to fulfill its responsibilities as an AS. Thus, the state's General Assembly has designated the Pennsylvania DEP as the agency responsible for administering the Commonwealth's radiation protection and enforcement programs for radioactive materials and all other radiation sources. The BRP within DEP has been designated as the bureau to carry out the duties and responsibilities under the Department's AS program. A brief description of the significant statutes governing radiation protection and LLRW disposal programs in the Commonwealth is provided below.

The Radiation Protection Act 1984-147 (Act 147), empowered the Department to establish, implement and maintain a comprehensive statewide radiation protection program. Some of the powers and duties given to the Department under this Act are as follows:

1. Provide for the licensing and regulation, in cooperation with the federal government, of other state agencies and private entities possessing radioactive material and radiation generating equipment / sources.
2. Assume licensing and regulatory responsibility from the federal government for certain radioactive materials.
3. Maintain a comprehensive environmental radiation surveillance and monitoring program around nuclear power plants and at other locations in the Commonwealth.
4. Establish an independent nuclear safety reactor oversight program to evaluate all nuclear power plants in the Commonwealth.

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5. Establish and maintain a comprehensive emergency radiation response capability in conjunction with the Pennsylvania Emergency Management Agency.
6. Establish plans and procedures for notification of spent nuclear fuel shipments.

With the exception in the area of low-level radioactive waste, Act 147 provides BRP the full programmatic authority in all needed powers, duties, and enforcement to implement an AS program. This includes the ability to establish regulations, fees and a fiscal Radiation Protection Fund where the self-supporting fees may be obligated for these programs.

Subsequent to the enactment of Act 147, additional legislation affecting some of the state's radiation protection programs has been enacted by the Pennsylvania General Assembly and approved by the Governor. Specifically, in 1985, the General Assembly and the Governor approved the formation of an Appalachian States Low-Level Radioactive Waste Compact. An Act established the Appalachian States Low-Level Radioactive Waste Commission, and provided for Pennsylvania to enter into a compact with the states of Maryland, Delaware and West Virginia. In 1988, the Pennsylvania Low-Level Radioactive Waste Disposal Act, Act 1988-12 (Act 12), was enacted and approved.

Act 12 provides for the management and disposal of low-level radioactive waste (LLRW), siting of a LLRW disposal facility, and for the licensing of its operator. Act 12 further provides for powers and duties of the Department and the Environmental Quality Board (EQB).

Some of the powers and duties given to the Department under this Act 12 are as follows:

1. Develop and implement a comprehensive program for the regulation of the generation, storage, handling, transportation, processing, minimization, separation, management and disposal of low-level radioactive waste to the extent allowable under Federal law or State law, whichever is more stringent.
2. Implement a regulatory, inspection, enforcement and monitoring program consistent with the terms of an Agreement between the United States Nuclear Regulatory Commission (NRC) and the Commonwealth, as provided for in Section 201 of the Act 147, and this Act 12.
3. Enter into a contract with an operator-licensee designate to screen the state to locate potentially suitable sites, to study the sites in detail, and to submit a license application to operate the regional LLRW disposal facility.
4. License a regional facility operator in accordance with Section 308 and regulations promulgated thereunder.
5. Issue permits to generators, brokers and carriers of low-level radioactive waste for access to the regional facility in accordance with provisions of Act 12 and with the specific regulations promulgated under this Act.
6. Implement Pennsylvania's duties and responsibilities arising under the Appalachian States LLRW Compact.

In addition to Act 12, in 1990, the Low-Level Radioactive Waste Regional Facility Act, Act 1990-107 (Act 107), was enacted to create a fee system to cover the costs related to the establishment of an LLRW disposal facility in Pennsylvania. It should also be noted that in 1998, the Commonwealth suspended its activities and process to site a LLRW disposal facility within the state. Nonetheless, BRP actively maintains the administrative and operational aspects of the Compact Commission, the LLRW generator disposal reporting requirements, reporting responsibility to the General Assembly, and stands ready to re-start the LLRW programs if needed in the future. The Commonwealth is committed to providing oversight for safe and effective management of LLRW within the state.

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A copy of Acts 1984-147, 1988-12, 1985-120 and 1990-107 are included with this AS application package. Though not applicable to this application, it should be noted that other statutory and regulatory authority rests with BRP for the certification of radon testers, mitigators and laboratories. The staff involved with this radon certification program provide additional expertise in monitoring of radon, and are an integral part of the emergency response capability of the RP Program. Again, the Department is a national leader in the area of radon testing, mitigation, research, certification, and related regulatory oversight.

It is the Commonwealth's understanding that the NRC staff have completed their review of all applicable RP Program Acts with respect to radioactive material licensing, radiation protection, LLRW disposal, and have found these statutes comprehensive and sufficient to the needs of a potential AS. And, no amendments to any Acts are needed to implement an AS program.

1.3 Regulatory Authority

Act 147 and other related Acts noted above provide the Department authorization to promulgate comprehensive regulations governing its radiation protection programs. These regulations are comprehensive and allow Pennsylvania to implement an Agreement State program in all areas being applied for in this application. The Pennsylvania Act 1984-147, section 201; and Act 1988-12, section 301 [2]; authorizes the Governor of Pennsylvania, on behalf of the Commonwealth, to enter into agreements with the NRC to assume authority to regulate the use and the disposal of certain radioactive materials. In the December 1995 letter to the NRC, former Governor Ridge stated Pennsylvania's formal intent to assume full Agreement State authorization from NRC, including the authority to regulate the disposal of low-level radioactive waste. See the current and any proposed regulations appended to this application. A list of chapters of the Pennsylvania regulations in the Department's Article V on Radiological Health is as follows:

Commonwealth of Pennsylvania Pennsylvania Code

Title 25. Environmental Protection Department of Environmental Protection

Article V. Radiological Health

| Chapter | Title |
|----------------|--|
| 215. | General Provisions |
| 216. | Registration of Radiation-Producing Machines and Radiation Producing Machine Service Providers |
| 217. | Licensing of Radioactive Material |
| 218. | Fees |
| 219. | Standards for Protection Against Radiation |
| 220. | Notices, Instructions and Reports to Workers; Inspections and Investigations |
| 221. | X-rays in the Healing Arts |
| 222. | [Reserved] |
| 223. | Veterinary Medicine |
| 224. | Medical Use of Radioactive Material |

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- 225. Radiation Safety Requirements for Industrial Radiographic Operations
- 226. Radiation Safety Requirements for Well Logging
- 227. Radiation Safety Requirements for Analytical X-ray Equipment, X-ray Gauging Equipment, Electron Microscopes and X-ray Calibration Systems
- 228. Radiation Safety Requirements for Particle Accelerators
- 229. [Reserved]
- 230. Packaging and Transportation of Radioactive Material
- 231. [Reserved]
- 232. Licenses And Radiation Safety Requirements For Irradiators
- 233. [Reserved]
- 235. [Reserved]
- 236. Low Level Radioactive Waste Management and Disposal
- 237. Rebuttable Presumption of Liability of the Operator of the Regional Low-Level Waste Facility
- 240. Radon Certification

1.3.1 Rulemaking Authority

The Department and BRP have the authority to promulgate regulations under Act 147, however, this is done in conjunction with the Environmental Quality Board (EQB) and Independent Regulatory Review Commission (IRRC). The EQB and IRRC are comprised of cabinet-level officials or their alternate, members of the Citizen's Advisory Council, and members of the General Assembly and respective appointees. The EQB is chaired by the Secretary of the Department. Formal policies and procedures for the promulgation of regulations in the Department and BRP are established by the Department's Policy Office. See the enclosed Department guidance for approval and development of regulations.

Briefly, draft regulations are developed by a program area (e.g., Radiation Protection, Air Quality, Waste Management, Water Quality, etc.), concurred upon by the appropriate Deputy Secretary, most often evaluated in conjunction with an Advisory Committee, then presented to the EQB, voted on, and if acceptable, forwarded to IRRC for possible comment and response, returned to the specific Department program (i.e., in the area of Radiation Protection, the BRP), and then published in the Pennsylvania Bulletin for public comment. Once comment period has ended, and all comments are received and responses developed, the same process is repeated with the ultimate goal of publishing final regulations. These final regulations may or may not be the same as originally proposed. However, when published, there is a full comment and response document included, if any are received. The Department does have the authority to truncate this process, and publish regulations on an emergency basis if needed. It has been the experience of BRP, that the Department, BRP's Advisory Committees, EQB and IRRC have been very supportive in the development of the regulations and fees needed to implement an AS program. Only minor revisions are needed to have all RPP regulations compatible with NRC's for AS status, and this effort should be completed by the end of 2006.

Over the past several years, BRP has continued to provide NRC with copies of draft and final regulations as they relate to the Commonwealth's AS application. A December 2005 NRC letter outlining the NRC staff's tracking of our regulation updates, noted several areas staff required an explanation of our regulations, or the regulations be updated to reflect recent changes made by NRC to their regulations prior to becoming an AS. With minor exception, it is

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our belief that our Commonwealth regulations are presently (as of June 2006) fully compatible with NRC's regulations. In that BRP has incorporated the needed NRC regulations by reference, due to NRC's renumbering of 10CFR71, there are only a few minor changes needed to the Department's Article V, e.g., Chapter 230. The Commonwealth's regulations will be fully compatible with NRC's in Title 10 by the end of calendar year 2006. Specifically, BRP has presented the needed proposed minor changes to the Department's Radiation Protection Advisory Committee, and they should be through EQB, IRRC and in the PA Bulletin the summer of 2006. These revisions should be complete by the fall or winter of 2006. Again, the NRC staff have formally reviewed all of the applicable regulations as they relate to licensing of radioactive materials and LLRW disposal, and it is BRP's understanding that they are fully compatible with NRC's regulations.

1.3.2 EQB Authority and Relationship to the Department

The Environmental Quality Board, established pursuant to the Commonwealth's Administrative Code, has the power and duty to formulate, adopt and promulgate rules and regulations under the various Acts implemented by the Department. This includes those rules and regulations developed by the Department to carry out the provisions of the Radiation Protection Act and the Low-Level Radioactive Waste Disposal Act as outlined above. They have effectively implemented this authority over the past several years as BRP has moved forward in amending its regulations for AS status.

1.3.3 EQB Legislative Authority

Under Section 302 of the Radiation Protection Act, the EQB has the power and duty to adopt and promulgate the rules and regulations of the Department to carry out the provisions of the Radiation Protection Act. Section 302 of the Low-Level Radioactive Waste Disposal Act specifies the powers and duties of the EQB with regard to regulation of low-level radioactive waste. It directs the EQB to adopt and promulgate regulations developed by the Department for the implementation of the Act and any other regulatory requirements the Department finds necessary or appropriate for the protection of public health and the environment from low-level radioactive waste.

1.4 Summary

The legislative statutes and regulations summarized above and included with the state's application, provides Pennsylvania with consolidated and complete authority to regulate and enforce a complete radiation protection program as an AS. Provisions of two separate laws (Radiation Protection Act, and the Low Level Radioactive Waste Disposal Act) explicitly authorize the Governor to execute the necessary Agreements with the NRC.

2.0 ORGANIZATION AND DUTIES OF THE BUREAU OF RADIATION PROTECTION

The Department is comprised of several Deputates: Waste Air, and Radiation Management; Field Operations; Administration; Water Management; Mineral Resources Management; Policy and Communications, etc. As noted above, the Department is the sole state agency responsible for the regulation and implementation of Radiation Protection

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Programs in the Commonwealth. The Bureau of Radiation Protection is within the Department's Deputate for Waste Air, and Radiation Management (WARM), and under the upper management oversight of a Deputy Secretary. BRP is headed by a Bureau Director (BD) in the Department's Central Office (CO). The BD position requires certification by the American Board of Health Physics (ABHP), and for the past several decades has been staffed by individuals with a broad range of operation and applied health physics experience. BRP's Bureau Director is ultimately responsible for the programmatic aspects of the state's radiation protection program. The BRP Bureau Director reports directly to the Deputy Secretary as shown in the attached organization charts. The Deputy Secretary reports to the Secretary of the Department on programmatic issues, but functionally on operational matters, the reporting is through an Executive Deputy Secretary. The Executive Deputy Secretary reports directly to the Department Secretary. As agency head, the Secretary is in the Governor's cabinet. The Department has a Field Operations organization (Deputate) that, similar to NRC and other federal agencies, operates in a matrix manner, with the six Regional Offices (RO), and as many respective Regional Directors (RD) reporting to a Deputy Secretary for Field Operations. The RP Program personnel in both CO and ROs carry out the Department's radiation protection program duties and responsibilities as required by the laws of the Commonwealth and applicable internal policies and procedures. RPP staff in the ROs have the primary responsibility to inspect radiation source users.

The BRP has been organized into four divisions to carry out the various radiation protection programs it has been empowered or authorized to perform under various Pennsylvania statutes and regulations. The four divisions are – Decommissioning & Surveillance, Radiation Control, Nuclear Safety, and Radon. Each division is managed by a Division Chief, who reports directly to the BD. The Department and BRP organizational charts is also included in this application.

The Radiation Protection Program is currently responsible for implementing the following broad program areas:

1. Licensing and inspection of radioactive materials not regulated by the federal government,
2. Decommissioning oversight of NARM licensees,
3. Registration and inspection of medical and industrial x-ray equipment,
4. Nuclear reactor oversight,
5. Environmental surveillance around nuclear power plant sites,
6. Siting and licensing of a regional LLRW disposal facility,
7. Nuclear emergency response, and,
8. Radon monitoring and certification.

A full description of the duties performed by each Division of the BRP is provided below.

2.1 Division of Nuclear Safety

The Division of Nuclear Safety (DNS) is comprised of Nuclear Safety, Low-Level Radioactive Waste and Emergency Response sections as shown in the organization chart. The DNS has been assigned the following three major responsibilities:

1. Provide comprehensive Nuclear Reactor Oversight and professional nuclear expertise to the Commonwealth.

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2. Site, license and regulate the Appalachian States Low-Level Radioactive Waste (LLRW) disposal facility.
3. Develop and maintain an effective emergency response program, and provide assistance to the Pennsylvania Emergency Management Agency (PEMA) during a nuclear event or emergency.
4. Interface with PEMA and other state agencies on the transport of spent nuclear fuel and other large quantities of radioactive material through the Commonwealth.

2.1.1 Nuclear Reactor Oversight Program (Nuclear Safety Section)

The DNS has developed and implemented a comprehensive statewide nuclear reactor oversight review and inspection program as mandated by the Pennsylvania Radiation Protection Act, 1984-147.

The Nuclear Reactor Oversight Program employs several experienced nuclear safety specialists (NSS) who are assigned to various nuclear power plant sites in the Commonwealth. The BRP NSS staff conduct nuclear plant evaluations and participate in inspections with the NRC resident inspectors at these facilities. The NSS staff also review and evaluate all licensee-proposed license amendments and provide input into the NRC review process to determine whether the proposed license amendments constitute a significant safety hazard.

NSS staff are also responsible for conducting periodic inspections of low-level radioactive waste (LLRW) packaging and transportation activities at nuclear power plants. The Department has a Memorandum of Understanding (MOU) with the NRC to conduct such inspections. (Note: enclosed with this application are all BRP inter-agency / organization MOUs.) The purpose of these inspections is to ensure compliance with the applicable federal regulations. Although the NRC retains the ultimate enforcement power under this MOU, the BRP NSS staff also provide support to the NRC during any hearings or meetings pertaining to these inspections.

The Radiation Protection Act 1984-147, also established a fee system which requires the nuclear utilities in Pennsylvania to pay for the costs associated with the implementation of this program. Each nuclear utility pays to the Department an annual fee per reactor site. There are currently nine operating nuclear power plants at five sites in Pennsylvania.

2.1.2 Appalachian States LLRW Disposal Program (Low-Level Radioactive Waste Section)

The DNS has also established a comprehensive Low-Level Radioactive Waste Disposal Program. This program is mandated by the Pennsylvania Low-Level Radioactive Waste Disposal Act, Act 1988-12, and is responsible for the licensing of the regional LLRW Disposal Facility in Pennsylvania.

In 1980, Congress enacted the federal Low-Level Radioactive Waste Policy Act which made each state responsible for the disposal of LLRW generated within its borders and encouraged the states to enter into compacts. States that belong to compacts must provide for regional management of LLRW and can legally exclude waste from outside their compacts. In 1985, Congress amended the Low-Level Radioactive Waste Policy Act to reaffirm the regional compact concept and set deadlines, along with a series of financial incentives and penalties, to encourage states to meet the deadlines for disposal facility development.

The Pennsylvania General Assembly responded to the federal laws by enacting the Appalachian States Low-Level Waste Compact Act, Act 1985-120. This Act committed Pennsylvania to find a regional LLRW disposal site for the Appalachian States Compact. The member states of this compact are Delaware, Maryland, West Virginia and Pennsylvania.

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Pennsylvania was selected as the initial host state because it generated the largest amount of the waste within the compact. As noted above, in 1988, the General Assembly enacted the Low-Level Radioactive Waste Disposal Act, Act 1988-12. This Act designated and authorized the Department to select a site operator and to develop a comprehensive program to license and regulate the siting, operation, decommissioning and long-term care of the regional disposal facility. Act 1988-12 also authorized the Department to permit all generators, brokers and carriers that would use the regional facility.

DEP selected Chem-Nuclear Systems, LLC (CNS) through an open public process to site, develop and operate the regional facility. Further, the General Assembly enacted the Low-Level Radioactive Waste Regional Facility Act in 1990, Act 1990-107, to establish a fee system to cover the costs related to the development of the Appalachian States LLRW disposal facility in Pennsylvania. The nuclear utilities in Pennsylvania and one utility in Maryland have contributed approximately \$33 million to this LLRW Fund. During the 1990s, the Department paid CNS contract costs from the LLRW Fund. In 1998, the Department suspended the LLRW siting program in that they were unable to identify a voluntary municipality to host a LLRW disposal site. The Department and BRP stands ready to re-activate that process should it be needed. However, at this time Pennsylvania and Compact generators have access to the LLRW disposal site in Barnwell, SC. Thus, the RPP and DNS have the authority, regulations, procedures and financial resources to implement LLRW disposal licensing if needed.

Required activities related to the licensing of the LLRW Disposal Facility are presented in this application. Note, as stated above, the LLRW siting and licensing programs are currently inactive, and as such, there is limited staff devoted to the maintenance of this program. This staff member currently directly reports to the Emergency Response Section Chief. If needed, this LLRW Section may be re-activated by the BRP Director.

2.1.3 Emergency Response Program (Emergency Response Section)

The DNS has developed and implemented an effective nuclear power plant and radiological emergency response program. This program is mandated primarily by the Pennsylvania Radiation Protection Act, Act 1984-147, but Act 1988-12 also has similar provisions with respect to LLRW disposal operations. A fee system has been established which requires the nuclear utilities in Pennsylvania to pay for the costs associated with the implementation of this program, as well as other independent nuclear safety oversight.

Over one half-million individuals live within the Emergency Planning Zone (EPZ) of the five nuclear power plants sites in Pennsylvania. In the event of a nuclear power plant accident, it is essential that effective, timely protective action recommendations (PAR) and decisions are made to protect the public. These decisions depend on the continued viability of a comprehensive radiation emergency plan; up-to-date monitoring techniques; radiation detection equipment; ongoing staff training; coordination with nuclear utilities, federal agencies and other state agencies; and active participation in drills and exercises.

The Division of Nuclear Safety has a major responsibility in providing technical support and assistance to the Pennsylvania Emergency Management Agency (PEMA) during a nuclear event or emergency. Its nuclear engineers act as on-site representatives for the Commonwealth during nuclear emergencies. Major lessons learned from the March 1979 accident at Three Mile Island (TMI) Nuclear Unit-2, the 1993 security event at TMI Nuclear Unit 1, October 2001 security threat against TMI Unit-1, and many other classified Unusual Events and Alerts - that independently obtained information by the RPP management, radiological health physics and nuclear safety staff, and their independent assessment are vital to the Commonwealth's decision making process.

Besides the three major activities described above, the Division of Nuclear Safety is also involved in the independent oversight of decommissioning nuclear power plants (e.g., Saxton

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plant), and for establishing plans, and procedures for notification of spent nuclear fuel shipments and other large quantity shipments of radioactive material (e.g., highway route control) through the Commonwealth. Specifically, these emergency plans and procedures involve potential transportation (e.g., spent nuclear fuel shipments) and other fixed facility (e.g., the Navy's Bettis Atomic Lab) events. Traditionally, the BRP emergency plan has been focused on the nuclear power plant accident scenario, however, since the tragic events 9/11, this focus has shifted to other homeland security scenarios (e.g., radiological dispersion device or weapon of mass destruction).

The BRP's DNS has been extremely successful in obtaining federal homeland security grant funds for the RPP nuclear / radiological emergency response program. These funds have allowed the acquisition of significant health physics instrumentation (i.e., G-M survey meters, portable sodium iodide, cadmium telluride and germanium radioisotope identifiers, neutron probes, multiple "matrix" satellite linked gamma monitoring probes, etc.), and communications assets (satellite phones, Blackberry e-mail units, etc.) above the routine call-out pagers and cell phones used by the RP Program. See the enclosed listing of instrumentation available to the RP Program staff for emergency response and routine operations, many of which are in dedicated response vehicles.

Lastly, given the new National Response Plan, and the need to be National Incident Management System (NIMS) compliant with all state emergency plans and procedures, the RPP emergency plan is being re-written to incorporate all the major nuclear installation (i.e., nuclear power plant), radioactive materials licensee or other fixed facility, transportation, and related terrorist type event. Those detailed emergency plans and procedures will be completed by July 2006. Regardless, the RPP routinely responds to transportation accidents involving radioactive materials, and facility (e.g., metal recycling and solid waste) events involving lost or orphan sources. For example, recently two 20 mCi Am-241 static eliminator bars were discovered at a Pennsylvania landfill. A report and catalog of lost or abandoned sources the RP Program has recently responded to is enclosed, and, can be found on the BRP web site.

2.2 Division of Radiation Control

The Division of Radiation Control (DRC) is comprised of the radioactive materials licensing section, and the x-ray equipment registration / accelerator licensing section. The Radioactive Materials Licensing Section is responsible for licensing users of naturally occurring and accelerator produced radioactive material in the Commonwealth, and it is this section that will have the lead role in licensing the byproduct, source material and small quantity special nuclear material licensees current under NRC's authority.

The x-ray registration program consists of registering machine type equipment that produce ionizing radiation. Recently the DRC converted about 140 accelerator registrations (with a total of 250 units) to specific accelerator licenses. These license authorizations included general and site-specific conditions related to operation staff qualifications, machine calibration, authorized users, radiation safety officer, etc. Much of this was patterned after the NRC's cobalt-60 teletherapy licensing protocols.

There are six Department Regional Offices (RO) that implement the various programs such as, radiation protection, air, waste, water quality, etc. Given the demographics of the state's population, industry and radiation source users, the RPP has the majority of its staff in the southern three ROs. These ROs primarily carry out the inspection and compliance function of the materials and x-ray portion of the RPP. The three main ROs with RPP staff are located in Harrisburg, Norristown and Pittsburgh, however, once Agreement State status is obtained, the intent is to place new x-ray and materials inspectors in the northern ROs. Programmatic policies and issues relative to the RPP in regional offices fall within the purview of the Bureau Director of BRP. Administrative policies and functions in the ROs are the responsibility of the

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Regional Director, who reports to the Deputy Secretary for Field Operations, who in turn reports directly to the Secretary and Executive Deputy Secretary of the Department.

2.2.1 Licensing of Radioactive Materials

In 1971, the Commonwealth of Pennsylvania began licensing persons to use radioactive materials which were not under the jurisdiction of the federal government, e.g., users of discrete radium sources. Licensing procedures were designed to coincide as closely as possible with the licensing policies and procedures used by the Atomic Energy Commission (predecessor to the NRC) and Agreement States. With the more recent expanded use of accelerator produced positron emission radioactive materials, the DRC's licensing has also greatly expanded into traditional nuclear medicine scanning. Licensing guides and forms, Department policies, application forms, and other administrative tools have been developed in conjunction with other Agreement States and the NRC. Thus current policies and procedures used in licensing naturally occurring and accelerator produced radioactive materials (NARM) are very similar to those used by the NRC in licensing byproduct materials. In fact, where applicable, it is the intent of BRP to utilize the NRC's actual licensing guidance in the 20-volume Consolidated Guidance About Materials Licenses NUREG 1556 series as is for material license applications. The NUREG 1556 guidance series currently includes for following:

1. Program-Specific Guidance About Portable Gauge Licenses
2. Program-Specific Guidance About Industrial Radiography Licenses
3. Applications for Sealed Source and Device Evaluation and Registration
4. Program-Specific Guidance About Fixed Gauge Licenses
5. Program-Specific Guidance About Self-Shielded Irradiator Licenses
6. Program-Specific Guidance About 10 CFR Part 36 Irradiator Licenses
7. Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope Including Gas Chromatographs and X-Ray Fluorescence Analyzers
8. Program-Specific Guidance About Exempt Distribution Licenses
9. Program-Specific Guidance About Medical Use Licenses
10. Program-Specific Guidance About Master Materials Licenses
11. Program-Specific Guidance About Licenses of Broad Scope
12. Program-Specific Guidance About Possession Licenses for Manufacturing and Distribution
13. Program-Specific Guidance About Commercial Radiopharmacy Licenses
14. Program-Specific Guidance About Well Logging, Tracer, and Field Flood Study Licenses
15. Guidance About Changes of Control and About Bankruptcy Involving Byproduct, Source, or Special Nuclear Materials Licenses
16. Program-Specific Guidance About Licenses Authorizing Distribution to General Licensees
17. Program-Specific Guidance About Licenses for Special Nuclear Material of Less than Critical Mass
18. Program-Specific Guidance About Service Provider Licenses
19. Guidance for Agreement State Licensees About NRC Form 241 Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction, or Offshore Waters and Guidance for NRC Licensees Proposing To Work in Agreement State Jurisdiction (Reciprocity)
20. Guidance About Administrative Licensing Procedures

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The actual application forms will be Pennsylvania forms, but the informational content will mirror NRC's application. In all current licensing applications (i.e., NARM or accelerator), they are reviewed by the DRC, and when applicable, these reviews are coordinated with the appropriate RO staff. Pre-licensing facility inspections and walk-downs are conducted as necessary. Similar to the NRC and other states, licenses are generally issued and renewed for five year periods. Prior to termination of a license, BRP requires documentation that all radioactive material has been transferred to an authorized recipient. If needed, final close-out radiological surveys are performed by the licensee, and BRP and/or a RO, or third party consult contractor will assess the licensee's transfer of material and/or site / facility(s) clean-up (see Decommissioning and Surveillance section below). Upon verification of the site being cleared of radioactive materials to NRC's decommissioning / license termination criteria, an approval of license termination is made by BRP's DRC. As of 2005, BRP had approximately 460 NARM licenses in force.

As noted above, the inspection and compliance of licensees is performed by the ROs. This is a major portion of the current RP Program, i.e., NARM and accelerator licensees, and x-ray equipment users. The comprehensive inspection and compliance program for these radiation source users falls to ROs. During inspections, RP Program inspectors and other staff evaluate regulatory compliance and examine radiation source user's safety performance. At times when there are only minor findings, staff may assist the licensee with compliance problems and recommend actions that can be performed for a better radiation safety program. Serious health and safety issues are handled immediately onsite by the inspector. In any situation of non-compliance requires a series of steps that are outlined in the RP Program Compliance and Enforcement Policy (enclosed). The inspection of x-ray equipment and NARM users has been performed since the RP Program formally began in early 1960. Informally, the Commonwealth has been involved with x-ray and radium users since the early 1940s. Inspections of state NARM licensees have been conducted since 1971.

The NARM inspection program is very similar to the NRC's materials inspection program. And again, the Commonwealth has utilized the NRC Inspection Manual to tailor Department desk manuals and specific byproduct material and other inspections procedures. Thus, these procedures are very similar to NRC's, but adjusted for Department and state "business" practices. Functionally, at the completion of each inspection, the inspector confers with licensee representatives and verbally reviews the results and findings of the inspection. The inspector submits a comprehensive written report to RPP supervisory staff. The report describes inspection findings and lists all items of noncompliance found during the inspection. Following review by supervisory personnel, a letter is prepared and sent to the licensee's radiation safety officer (RSO) and/or management outlining the facility's compliance status. The licensee is typically required to notify the RPP within 20 days concerning actions proposed to correct deficiencies. Should the licensee not bring the radiation program into compliance with license requirements and regulations, the Department may initiate enforcement procedures (i.e., issue a Notice of Violation, or NOV) and possibly impose a civil penalty, or issue an immediate Order to abate the violation or radiological hazard. This authority is clearly given in the Radiation Protection Act, Act 1984-147. The BRP has recently updated its Compliance and Enforcement Policy (enclosed with this application), and published it in the Pennsylvania Bulletin (a state government publication analogous to the Federal Register).

Legally, licensees have a right to a hearing before the Environmental Hearing Board unless a situation constitutes an imminent threat to public health. Again, in this case the RP Program may issue an emergency Order summarily requiring the radiation source owner or operator to modify or halt an activity. This Order may carry administrative sanctions. In a scenario that may involve criminal acts, BRP may also direct the Commonwealth's Attorney General (AG) to obtain an injunction against the violator, and pursue criminal action. Also, a person who is found in violation of any of the provisions of the Radiation Protection Act may be

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found guilty of a misdemeanor by action of the AG. A preliminary notification (PN) and/or press release may also be issued by BRP if deemed appropriate.

Follow-up inspections are conducted routinely in cases involving willful or flagrant violations, repeated poor performance in an area of concern, or serious breakdown in management or radiological controls. Follow-up inspections are usually conducted if more than two significant violations were found during the most recent routine inspection of a licensee. The supervisory personnel review each enforcement action on a case-by-case basis to decide if a follow-up inspection is indicated. All items of non-compliance are given special attention by the inspector during the next inspection of the facility.

BRP also conducts special inspections or investigations as needed to evaluate such items such as allegations, complaints, exposures to personnel in excess of regulatory limits, medical events, reported release of radioactive materials, major failure of safety equipment, and other incidents involving radioactive material. Senior RPP staff supervise such investigations to assure they are conducted promptly, professionally, and thoroughly.

All inspections are recorded in the Department's eFACTS compliance database, and, all special inspections or investigations are also reported to the BRP Bureau Director, Regional Director and Chief of the DRC. The eFACTS database is an administrative tool used by most Department programs for uniform "permitting" (e.g., licensing and registration of radiation sources) of facilities and tracking inspections and compliance. This eFACTS data warehouse allows all information to be shared between the Central Office and Regional staff, and more importantly, allow all Department permitting functions (e.g., RP, air, water, waste, mining, etc.) to be in one database. Enclosed is an overview of the eFACTS compliance database.

2.2.2 Regulated Facilities under Division of Radiation Control

As described above, as of 2005, BRP's DRC had approximately 460 NARM licenses. With Agreement State status, the Commonwealth expects to have another 850 byproduct material, source material, and small quantity special nuclear material licenses. There is some overlap among these BRP and NRC licensees, and we anticipate some 1,000 total licenses once Agreement State status is achieved. Licensing, inspections and termination procedures for these facilities are described throughout this application. This division also registered about 11,000 x-ray facilities which included some 30,000 radiation producing systems. The DRC also maintains an annual update of types of x-ray systems used, e.g., dental, panoramic, radiographic, fluoroscopic, CT, cabinet, analytical, etc. The following is a listing of facilities by type that the DRC tracks in the eFACTS database: dentists, medical doctors, osteopathic physicians, chiropractors, podiatrists, hospitals, medical clinics, veterinarians, retirement homes, universities/schools, industries, prisons, other medical and non-medical registrants.

Approximately 140 accelerator facilities with about 250 medical and non-medical high energy accelerators are now licensed by DRC, and tracked in eFACTS. These are complex and potentially very dangerous machines, which have the potential to cause grave harm to operators and patients if safety and/or radiation therapy treatments are not planned and execute without error.

Lastly, over the past several years, the DRC has also assisted the Department's Bureau of Waste Management (BWM) perform "major modifications" to approximately 170 solid waste facility (i.e., landfill, transfer facility, incinerator, etc.) permits, requiring a radiation monitoring Action Plan be put in place. Similar to traditional materials licensing, these permits have proscriptive operational conditions. Effective the beginning of 2001, all such solid waste facilities had to perform active gamma radiation monitoring, and implement a radiation Action Plan for proper surveys and source characterization. BRP actively led and assisted BWM develop their regulations and guidance, and, reviewed all 170 major modifications.

The DRC staff are fully qualified and ready to take over the NRC's licensing aspects.

2.2.3 Inspection and Compliance

There is a large inspection and compliance function within the RPP for regulated radiation producing equipment and radioactive materials. At this time, approximately 2,500 radiation producing machines and materials licensees are inspected annually. Over the past several years, hundreds of other decommissioning inspections have been (and continue to be) performed on NARM and NRC licensees, often in conjunction with NRC. These inspections are conducted by the three ROs and Central Office BRP staff. The RP Program staff conduct inspections according to the schedule internally prescribed, but in general, depending on the hazard potential of the sources used, inspection frequencies range from two to four year intervals. With AS status, the RP Program will inspect the material licensees to the same frequency as does NRC. During inspections DEP will evaluate the material licensees and registrants with respect to compliance problems, performance of the radiation protection program, and, management oversight of the program. If minor non-compliance issues are noted, the RP Program staff may note actions that can be implemented immediately, or performed in the future to better the radiation safety program. Inspectors also have the authority to immediately alert the licensee or registrant to a grave hazard that threatens public health and safety. If there are non-radiological hazards noted, they may be referred to the state Department of Labor and Industries. Similar to the radioactive materials program, follow-up letters are prepared and sent to operators of radiation producing machines outlining the facility's compliance status. Should the operator not bring the radiation program into compliance with the regulations, BRP may initiate enforcement actions as described previously in the case of materials license or other facility violations.

The entire inspection and compliance program is designed to use the Department's global eFACTS electronic data processing system. This use of data processing assures linkages between license application information, license conditions, past compliance history, administrative efficiency, and provides BRP a strong compliance database for determining program effectiveness, trending of violations, and future program direction. A procedure is in place and staff are trained, and presently providing information to the NRC's national materials event database, i.e., NMED. The Commonwealth's RP Program staff are also currently performing joint inspections of NRC licensees, will continue to do so leading up to signing the proposed Agreement, and will be fully qualified and ready to take over NRC's inspection functions when we become an Agreement State. The inspectors will be documenting training and inspections experience in an individual qualification journal. In addition to significant NARM inspection experience, the Commonwealth's inspectors' experience will involve jointly inspecting several NRC licensees of varying degree of complexity. Once Agreement State status is achieved, RP Program supervisors will perform 1 to 3 "Field Audits" annually, and join the inspectors during actual licensee inspections.

2.2.4 Special Projects and Professional Activities

Many RPP staff members have pursued various special radiation protection projects and other professional activities. Often these can be characterized as studies, facility / operation walk-downs or surveys to better assess and understand newer equipment, radiation therapy modalities, decontamination techniques, etc. in use by licensees and registrants. Some of these projects have been presented and published in the proceedings of various meetings, such as the National Conference on Radiation Control Program Directors, or committee reports. Additionally, many RPP staff are active on national health physics, emergency response and nuclear safety committees.

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DEP management has supported such involvement by RP Program staff for the advancement of the public perception of the high quality of radiation protection and the overall protection of the citizens of the Commonwealth. In some instances RP Program management has even taken the lead. For example, the BRP Director and several RP Program Managers and staff are active on national RP committees. They often present and publish on emergency response, environmental surveillance, decommissioning, low-level radioactive waste, reduction of patient x-ray exposure, radioactivity in solid waste and the incidence of radioactive materials in the scrap metal recycling stream.

2.2.5 Routine Regional Emergency Response

As noted above, a significant level of effort in the RPP is dedicated to radiological emergency response. This has been the case for decades, and since the TMI Unit-2 accident, has become much more formalized and expanded to encompass potential terrorist type events. Clearly when any radiological event unfolds, it is the local and state first responders that have to handle the full events that are small in scope, and regardless, will have to manage larger events during the first 24-48 hours. This has been the case in the Commonwealth for decades, and it is a matter of fact, that the RPP staff are most often first to respond to offsite events involving NRC licensees within the state. There are several call-out notification systems in place through BRP, the Department, or PEMA, where RPP Central and Regional Office staff are made available for response to radioactive material incidents such as lost or damaged sources, contamination of facilities, or transportation mishaps. RPP personnel respond to an average of 20 to 40 incidents per year. As described in our emergency procedures, the equipment available for response and communication structure is such that it includes personnel pagers, cell phones, Blackberry e-mail, satellite phones, two-way radio communication, the full range of field health physics survey instrumentation (air sampling, gamma spec, alpha/beta/gamma meters, etc.) command and support vehicles. Operational coordination may be performed onsite, or if other agencies support is needed, via the state EOC. However, most events are small in scale, and response is handled at the Regional level, with reporting to Central Office. Depending on the nature and scope of the event, information details may be entered into the NRC's NMED reporting database.

2.3 Decommissioning and Surveillance Division

The Environmental Surveillance Section within the Decommissioning and Surveillance Division is responsible for carrying out a comprehensive environmental radiation monitoring program throughout the Commonwealth including five nuclear power stations and certain other nuclear facilities. This section performs the routine monitoring, sampling, and analysis of environmental parameters to determine levels of radiation and radioactivity in the general environment around nuclear power reactors and other fixed facilities that utilize radioactive material. The Section is housed at the DEP Bureau of Laboratories (BOL) facility, as they operationally feed routine samples and chain-of-custody sample tracking sheets to the Radiochemistry Group within the BOL. They have also interfaced for decades with the U.S. Environmental Protection Agency (EPA), as BRP has had the lead for Commonwealth with our participation in the EPA's Environmental Radiation Ambient Monitoring System (ERAMS) program. This ERAMS program has monitored radioactivity in air, surface water and precipitation via state collection stations, several of which are in Pennsylvania. EPA is in the process of converting these ERAMS stations to active radiation monitoring locations, and this

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Section has the lead interface role with this new RadNet program. The section develops plans and procedures to support response to accidents occurring at nuclear power plants, during radioactive material transportation, and at other material user fixed facilities. The Environmental Surveillance Section will be responsible for evaluating environmental monitoring around any Commonwealth low-level radioactive waste disposal facility, and would support the preparation of emergency response plans for the facility.

The Decommissioning Section within the Decommissioning and Surveillance Division is responsible for carrying out a comprehensive decontamination and decommissioning (D&D) oversight program throughout the Commonwealth. The Commonwealth has had numerous sites that required decommissioning over the years. Many of these sites are still undergoing D&D, and the regulatory oversight of these sites will represent a significant commitment for PA as Agreement State. BRP has structured its Decommissioning Section and programmatic oversight to meet this commitment, taking advantage of the expertise and experience of its staff in both Central Office and three Regional Offices. The prior official regulatory oversight of NRC licensed, complex decommissioning sites in PA, the RPP staff have worked with NRC in close cooperation, in accordance with an official NRC / PA Memorandum of Understanding, effective July 15, 1996. As a consequence of this close cooperation, the RPP are intimately familiar with the status of each of the seven complex sites and the bases upon which NRC regulatory actions have been taken.

The Commonwealth's decommissioning program has been established to ensure adequate protection of the public health and safety, and is fully compatible with the NRC's Program. Through incorporation of NRC regulations by reference, the requirements for decommissioning established in Title 25 PA Code, Article V, are identical to the NRC regulations and provide highly compatible criteria for license termination. Consistent with NRC practice, decommissioning in the Commonwealth means to safely remove from service a site that is contaminated with radioactive materials and reduce the residual radioactivity to levels that permits termination of the site license. PA follows the NRC usage of the term "site" to include land areas, buildings, equipment and contents, and any other facilities involved in the use of radioactive materials. The overall management of the license termination and decommissioning program for sites in the Commonwealth contaminated with radioactive materials will be the responsibility of BRP in the Central Office, with coordination and concurrence with the respective Region where the site may be located.

These sites include those previously included in the NRC's Site Decommissioning Management Plan (SDMP), or locations identified in the NRC / Oak Ridge National Laboratory reviews of terminated license sites that have been found to have residual radioactive contamination at levels exceeding regulatory limits for unrestricted access. It may also include any location that have never been licensed by either NRC (or predecessor agencies), nor the Commonwealth, but is contaminated with licensable amounts of residual radioactivity. Additionally, it will include any location licensed by BRP for which license termination is requested in the future, and any licensed locations with residual radioactive contamination found to be abandoned, or activities terminated, without informing BRP.

Table 1 below lists all of the currently identified major sites in categories the above, and provides the status of decommissioning activities. Table 2 provides a listing of major PA sites that have been successfully remediated in the past and applicable licenses have been terminated to allow unrestricted access. In addition to the major sites, each year there are numerous site licensees with small quantities of radioactive materials, such as sealed sources, that request license terminations. On average, there are about six to ten of these each year in the Commonwealth that require regulatory action to confirm that materials have been disposed

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of, transferred, and D&D meets license termination criteria. Finally, there are four known major decommissioning sites in the Commonwealth that will not transfer to the Commonwealth when Agreement State status is approved. The sites that will remain under NRC authority are: the NRC TR-2 reactor site; the two Canonsburg and Burrell uranium mill tailings disposal cell sites, they remain DOE responsibility under NRC General License (10 CFR 40.27); and, the BWXT Shallow Land Disposal Area (SLDA), which will remain under NRC License SNM-2001 and is currently being evaluated for D&D by the Army Corps of Engineers under the FUSRAP program. The unlicensed Kiski Valley POTW Authority has been evaluated by NRC under the license termination process, however, due to the total quantity of enriched uranium (i.e., uranium enriched in U-235 is considered special nuclear material or SNM) in the ash lagoon, this contaminated site can not be regulated by the Commonwealth. Similarly, any other sites with SNM licenses that are active or inactive, that exceed the “small quantity” SNM limits – will remain with NRC. Lastly, BRP took over the byproduct material license in early 2003 for a site the Commonwealth (i.e., DCNR) owns in the Quehanna Wild Area. We anticipate license termination with this site in early, mid-2007, just prior to becoming an Agreement State. The site has undergone a full 30 million dollar D&D, and a revised Decommissioning Plan is under review by NRC. Should it be needed to preclude a conflict of interest, the Commonwealth is prepared to request the license be transferred to DCNR.

The organization and responsibilities of the RPP decommissioning program is as follows. The BRP Director has overall regulatory responsibility for the PA Decommissioning Program. Direct support is provided to the BRP Director by the CO management and staff, as well as inspector staff in the three ROs. More specifically, BRP has the responsibility for all complex decommissioning projects in the Commonwealth, as currently listed in Table 1 and as may be identified in the future, and for implementing regulatory decisions and actions. Each RO has the responsibility for onsite inspections for regulatory oversight of decommissioning at all licensees within their respective geographical areas. In addition, the ROs provide support to BRP for inspections and surveys at complex decommissioning sites in their areas. However, BRP establishes overall decommissioning policies and generally provides the interface with other agencies (i.e., NRC, EPA, etc.), as required. Within BRP, responsibility for policy implementation, routine regulation and oversight of the PA Decommissioning Program has been assigned to the Chief, Decommissioning and Surveillance Division. This Division is devoted exclusively to the Decommissioning Program and the Environmental Surveillance Program. Relational organization charts are provided in this application. Responsibilities within the Decommissioning Program include:

1. Effecting a smooth transfer of responsibility from NRC to the Commonwealth,
2. Ensuring that NRC approved Decommissioning Plans and regulatory requirements are implemented for each of the transferred sites,
3. Coordination as necessary with federal agencies (e.g. NRC, EPA), and other PA organizations,
4. Maintaining cognizance of technical advances in the decommissioning field,
5. As needed, development and implementation of decommissioning regulations, guidance, and procedures for the RPP that are consistent with NRC practices,
6. Review and approval of licensee submitted and technical documents in conjunction with the Materials Licensing Section of the Radiation Control Division,
7. Preparation of any required Safety Evaluation Reports,
8. Posting notices of major regulatory actions in the PA Bulletin,
9. Participation in any public and adjudicatory hearings,
10. Inspection of decommissioning sites,
11. Response to any site incidents or emergencies,
12. Surveys of sites, including confirmatory surveys,
13. Enforcement actions against decommissioning licensees,

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14. Recruitment, training, and qualification of required program staff, and
15. Qualification and selection of any contractor support for confirmatory surveys.

Sufficient staff for the PA Decommissioning Program is currently provided for by the full-time personnel in the Division of Decommissioning and Surveillance. This includes a Division Chief, Section Chief for Environmental Surveillance, three RP technical staff in the Environmental Surveillance Section, and two RHP's within the Decommissioning Section, with one the provision to have an additional RHP (to be hired just prior or after implementation of the Agreement State Program). Do to the sporadic nature of D&D work and need for independent confirmatory surveys, the staff will be supplemented as necessary by consultant(s) experienced in D&D programs. Additional staff support to BRP for the complex sites will be provided by the full-time RP Managers and RHP's from the ROs. The actual number of staff FTE's assigned to the PA Decommissioning Program will be determined by review of the number of NRC staff that has been assigned to these same complex decommissioning projects as we approach the transfer of these licensees. Presently (June 2006) we anticipate one additional technical or administrative staff needed to support the Decommissioning Division. The final workload analysis will also assume that an average of six to ten licensees with small quantities of radioactive material will also request license termination each year. Legal assistance is provided, as necessary, by DEP attorneys. In addition, specialized technical staff, such as hydrologists and geologists, are available from other offices in DEP. Within the Department's organization there is a dedicated radiochem laboratory in the BOLs that provides analytical support to the Decommissioning Program for sample analyses.

The training and qualification of Decommissioning Program staff will follow the procedures outlined in this application. All technical staff assigned to the PA Decommissioning Program will have successfully completed training in a program that has been developed to be consistent with the NRC Guidance given in NUREG-1757. Much training is sponsored by NRC for state employees in the Agreement State programs. RP Program staff have taken advantage of such NRC courses, and have completed other related formal training courses (e.g., ANL's RESRAD code course). Job descriptions have been developed and assignees' training is recorded on standardized training forms. Refresher training is scheduled on a periodic basis (e.g., HAZMAT), and management reviews / sign-offs are performed to ensure that each staff member's training is current and appropriate for their assignments. In reviewing Table 1 and 2, it is apparent that perhaps no other state in the U.S.A. has had the variety and number of complex D&D sites. Current BRP staff have experience related to the decommissioning of TMI Unit-2, the Shippingport and Saxton reactors, complete oversight of major radium site cleanups, direct technical and project management for a 30 million dollar D&D of the Quehanna hot cell facility, and the daily involvement of all other NRC complex decommissioning sites in the state. This involvement includes licensing document review, analysis and comments, and most importantly, the hands-on onsite oversight and survey work. The PA RPP staff are fully qualified and ready to take over D&D regulatory responsibilities from NRC.

The procedures for reviewing Decommissioning Plans, evaluating licensee surveys, and terminating licenses are completely compatible with the NRC's approach to license termination. The Commonwealth will also commit to accepting any licensee's decommissioning plan approved NRC prior to PA Agreement State status, which has BRP concurrence. The BRP Decommissioning Program will follow the NRC guidance and procedures provided in three volume NUREG-1757 series, "Consolidated NMSS Decommissioning Guidance." The NRC's NUREG-1575 (rev 1) Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) will also be utilized to perform confirmatory surveys. The MARSSIM approach provides for detailed site investigations through surveys and final status surveys, where one must consider

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the planning and design, radiological classification of areas, statistics, instruments, field methods, sampling, chain of custody, laboratory methods, data evaluation, etc. These detailed procedures were developed by the Oak Ridge Institute of Science and Education (ORISE) environmental survey and site assessment program staff and have been adopted by NRC, EPA and other federal agencies as an appropriate survey methods manual.

Table 1. PA Complex Decommissioning Sites

| <u>NAME</u> | <u>LOCATION</u> | <u>LICENSE NUMBER(S)¹</u> | <u>PRINCIPLE RADIONUCLIDES</u> | <u>STATUS</u> |
|---|--|---|---|---|
| Safety Light Corporation (former US Radium) (SDMP) | 5 mi. East of Bloomsburg, PA | NRC 37- 00030-02 NRC 37- 00030-08 PA-0166 | Ra-226, Cs-137, Sr- 90, Am-241, Co-60, H-3 | Inadequate decommissioning funds; EPA emergency removal action pending. Listed on NPL 5/27/05. |
| Molycorp Washington Site (SDMP) | Outskirts of Washington, PA | NRC SMB- 1393 | Uranium, Thorium, Radium and decay products | Active decommissioning underway to permit unrestricted use. |
| Cabot Corp. Reading Site (SDMP) | Within city limits of Reading, PA | NRC SMC- 1562 | Uranium, Thorium, Radium and decay products | 1988 Decommissioning Plan and 2005 Supplement submitted for NRC approval and PA review. DP under review. |
| PA DEP (former Permagrain Products) (SDMP) | Quehanna Wild Area, 10 mi. NW of Karthaus, PA | NRC 37- 17860-02 | Sr-90, Co-60 | Active decommissioning underway to permit unrestricted use. PA anticipates license termination prior to becoming an Agreement State. |
| Whittaker (SDMP) | 3.7 mi. South of Greenville, PA | NRC SMA- 1018 | U, Th, Ra-226 | Decommissioning Plan approved; decommissioning underway. |
| Westinghouse Electric – Waltz Mill Site (SDMP) | 3 mi. West of New Stanton, PA | NRC SNM- 770 (Not to be terminated, active operating | Transuranics, Cs-137, Co-60, Sr-90 | Soil remediation complete. Ground water pump and treat to continue for at least the next 30 years and SNM-770 |

¹ PA License Numbers to be assigned when Agreement State status is approved by NRC.

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| | | site); NRC TR-2 (possession only) stays with NRC | | license to be maintained. |
| Superbolt (Formerly Superior Steel) (Non-SDMP, ORNL Identified) | Carnegie, PA | NRC License (Terminated 1958) | U | Site conditions under investigation by NRC, DOE and PA. May be added to ACE FUSRAP list |

Table 2. Major PA Remediated Sites

| NAME | LOCATION | LICENSE NUMBER(S) | PRINCIPLE RADIONUCLIDES |
|--|-------------------------------------|--|-------------------------------------|
| Molycorp York Site (SDMP) | Outskirts of York, PA | NRC SMB-1408 (Terminated) | U, Th |
| Cabot Revere (SDMP) | 0.5 mi. SE Revere, PA | NRC SMC-1562 (Terminated) | U, Th |
| Cabot Boyertown (SDMP) | 1.6 mi. NE of Boyertown Borough, PA | NRC SMB-920 (Active) | U, Th |
| BWXT Parks Fuel and Source Fabrication (SDMP) | Parks Township, PA | NRC SNM-414 (Will be terminated prior to Agreement State approval) | U, Am-241, Pu-241, Co-60, Cs-137 |
| Babcock & Wilcox (SDMP) | Apollo, PA | NRC SNM-145 (Terminated) | U (enriched, natural, depleted), Th |
| Presses / METCOA (SDMP) | 1 mi. N of Pulaski, PA | NRC STB-1254 (Terminated) | Th |
| Schott Glass (SDMP) | Duryea, PA | NRC STB-988 (Terminated) | Th |
| Flannery Building / Parkvale Bank (Non-SDMP) circa 1915 radium | Pittsburgh, PA | PA-0821 (Terminated) | Ra |

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| | | | |
|---|------------------|--|---|
| production | | | |
| ICN Radiochemicals (Non-SDMP, ORNL Identified) | West Mifflin, PA | NRC 37-00345-30, SNM-00716 (Terminated 1969) | Cs-137, Co-60 |
| Sellersville Landfill; old c1914 Radium Company of America (non-SDMP) | Sellersville, PA | No PA License (removed from state HSCA list in 1997) | Ra |
| Kiski Valley Water Pollution Control Authority (Non-SDMP) | Leechburg, PA | No NRC or PA Licenses (NRC did an EA) | Enriched U |
| Royersford Wastewater Treatment Facility (Non-SDMP) | Royersford, PA | No NRC or PA Licenses | Co-60, Cs-137, other mixed fission products |
| Frankford Arsenal (Non-SDMP) | Philadelphia, PA | NRC SUB-459, NRC SUB-1339 (Both terminated 1981) | None above unrestricted release limits |
| Nuclear Laundry (Non-SDMP, ORNL Identified) | Jeanette, PA | NRC (Terminated 1973) | Various |
| Westinghouse Fuel Facility | Blairsville, PA | NRC (Terminated 1961) | U |
| Lansdowne Site (Non-SDMP, non-licensed) | Lansdowne, PA | Deleted from EPA's NPL in 1991 | Ra |

2.4 Radon Division

The Radon Division, comprised of the Certification Section and the Radon Monitoring Section, is responsible for providing awareness and education to the public and to certify radon testing, mitigation and laboratory facilities in Pennsylvania. The Certification Section employs RHPs who administer the certification program including policy development, application review, fee collection, enforcement of certification regulations, maintenance of certification lists and associated administrative functions. The Radon Monitoring Section employs RHPs who

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carry out a comprehensive inspection program of certified testers, mitigators, and laboratories. They also perform specialized studies (i.e., area “hot spot” surveys, mitigation techniques, etc.) In addition, all Radon Division staff participate in public outreach, and often have public lecture engagements, and implement various projects funded by EPA and their State Indoor Radon Grant (SIRG) moneys.

3.0 IMPLEMENTATION OF THE AGREEMENT STATE PROGRAM FOR MATERIALS LICENSEES

3.1 Overview.

Under Pennsylvania's proposed Agreement State program, the Division of Radiation Control will be the Division that has primary responsibility for licensing byproduct material, source material, and special nuclear material in quantities not sufficient to form a critical mass. The Decommissioning and Surveillance Division will have primary responsibility for D&D related work, including reviews for financial assurance and license terminations. The Division of Nuclear Safety will be responsible for the licensing of LLRW disposal site.

3.2 Licensing.

As of May 2006, the NRC had approximately 850 active specific licenses issued to “persons” within Pennsylvania. Therefore, factoring in the approximate 460 existing State NARM specific licenses with about 50 percent overlap, a total workload of about 1000 specific licenses is anticipated. To handle this additional regulatory load, BRP has expanded and enhance the basic licensing procedures that it has developed during the past 27 years issuing NARM licenses. The Department's policies and procedures will continue to be consistent with NRC guidelines, and will utilize NRC's licensing guidance. New BRP inspection procedures recently developed are adopted from those of the NRC. Standards and procedures for license application, review, and approval will continue to be compatible with NRC practice.

The inspection and enforcement aspects of the RPP will be the primary responsibility of the DEP regional offices, who will conduct routine inspections of activities authorized by Agreement State licenses. Inspection schedules will, at a minimum, be modeled after the NRC's inspection priority system. Inspections will be conducted from the three regional offices Pittsburgh, Harrisburg and Norristown. Again, the intent is to place additional RP Program staff in the northern DEP Regions as positions are filled once an Agreement is in place. The purpose of the PA Agreement State program is to provide local control of radioactive materials, and promote and protect the radiological health and safety of the public, employees' health and safety, and the environment by:

1. Ensuring compliance with Department and NRC regulations and license conditions,
2. Obtaining prompt correction of violations and adverse quality conditions which may affect safety,
3. Deterring future violations and occurrences of conditions adverse to quality, and
4. Encouraging improvement of licensee performance, including the prompt identification and reporting of potential safety problems.

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Consistent with the purpose of this program, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary attention to detail and the high standard of compliance which the Department and RP Program expects, and, the regulations require. The specific enforcement action taken will depend on the circumstances of each case. In no case, however, will licensees who cannot achieve and maintain adequate levels of protection be permitted to conduct licensed activities. Following each inspection, the inspector will confer with licensee representatives to inform them of preliminary inspection results. Each inspection report will be reviewed by the Regional RP Program Manager prior to formal transmittal to the licensee. The inspector or manager will send a comprehensive written report describing Inspection findings and detailing any apparent violations. In the event that BRP discovers any deficiency(ies) during an inspection, the Department will send the licensee a written notice itemizing the area(s) of deficiency(ies) and will require the licensee to submit within 20 days of the date of the notice a written response including:

1. Corrective steps which have been taken by the licensee and the results achieved,
2. Corrective steps which will be taken, and
3. The date when full compliance will be achieved.

If the licensee fails to provide an adequate response to the written notice, the Department will normally hold a management conference with the licensee prior to taking enforcement action. The Department may also elect to hold a conference for other violations. The purpose of these conferences will be to: discuss items of deficiency or noncompliance, their significance and causes, and the licensee's corrective actions; determine whether there are any aggravating or mitigating circumstances; and obtain other information which will help determine the appropriate enforcement action. If compliance cannot be achieved through these informal conferences, the Department's RP Program will take more formal enforcement action. However, for conditions which create an imminent threat to public health and safety, we will take immediate action in accordance with Pennsylvania law. Pennsylvania law (i.e., Radiation Protection Act 1984-147) provides that if the Department finds that a condition exists which constitutes an immediate threat to health due to the violation of any provisions of the Act or any code, rule, regulation or order promulgated under the Act and requiring immediate action to protect the public health or welfare, it may issue an Order asserting the existence of such an immediate threat and the findings of the Department pertaining thereto. The Department may summarily cause the abatement of such violation or may direct the Attorney General to obtain an injunction against such violator. An abatement order will be effective immediately but will include notice of the time and place of a public hearing before the Department to be held within 20 days of the date of such order to assure the justification of such order. Potential remedial actions which can be ordered by BRP include civil penalties, orders to modify, suspend, or revoke a license, or impound a radiation source. A license may be modified, suspended or revoked in the following instances: to remove a threat to the public health and safety or environment; to stop facility construction when further work could preclude or significantly hinder the identification or correction of an improperly constructed safety-related system or component, or when implementation of the licensee's quality assurance program is not adequate to provide confidence that construction activities are being properly carried out; when the licensee has not responded adequately to other enforcement action; when the licensee interferes with the conduct of an inspection or investigation; or for any reason not mentioned above for which license revocation is legally authorized; when a licensee is unable or unwilling to comply with BRP's requirements; or, when a licensee refuses to correct a violation. The PA Radiation Protection Act is very well written, and provides the RPP full authority to protect the public health and safety, and provide for material security.

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Follow-up inspections will be conducted as necessary by RP Program staff to verify compliance with Department rules and enforcement orders and to determine willful or flagrant violations, repeated poor performance in an area of concern, or serious breakdown in management controls. The Regional RP Program Managers will review each case individually to decide if a follow-up inspection is necessary. All previous areas of deficiency will also be given special attention by the inspector during the next routine inspection of the facility.

The anticipated NRC licenses will be technically complicated in nature. The Division of Radiation Control will be responsible for all NRC licenses transferred to DEP with the exception of the sites noted above. Thus, responsibility for the possession of byproduct, source or special nuclear materials in quantities not sufficient to form a critical mass will be assumed by the Division of Radiation Control within the Bureau of Radiation Protection. We will not accept the authority to perform sealed source and device reviews and approvals, nor will we license uranium milling operations (of which there are none in the state at this time).

The RPP staff requirements have been analyzed. Many different skills will be needed to adequately administer a regulatory program. For example, in depth training and experience in health physics is needed, with other areas such as industrial hygiene, nuclear medicine technology, engineering, physics, pharmacy, chemistry, and biology are all necessary to some extent. In addition, expertise in various types of facilities (e.g., hospitals, universities, industries, research institutions, laboratories) is also desirable. BRP, recognizing these needs, evaluated the training and experience of its current staff and have recruited individuals who would supplement and complement the skills already available within BRP. Resumes of current staff positions are included in this application. The job specifications for these individuals are also included. Staff members of the Division of Radiation Control, Decommissioning and Surveillance Division, Division of Nuclear Safety, and Regional Offices all have the technical background needed to administer and support an Agreement State program. This includes administrative staff.

As an indication of the Bureau's practical experience, during the past ten years the Bureau has conducted literally thousands of inspections of NARM licensees and D&D sites. To gain even greater experience in inspection procedures, RO staff will routinely accompanied NRC inspectors on their inspections in 2006 and 2007. All applicable CO and RO staff will continue to accompany NRC inspectors to gain additional experience on D&D sites. This being the case, regardless of current training and experience of staff cited to participate in NRC activities to be transferred to the Commonwealth, the BRP Director will ensure thru the RP Program Managers, all staff are qualified at the time the Agreement is signed.

BRP has evaluated NRC's staffing levels in NRC Region I and Headquarters that are involved with PA licensees. The Department believes it has the staff in place, trained and qualified to implement an effective AS program. BRP performed a workload analysis, requested, and was recently authorized by the Governor's Office of Administration to increase the RP Program staffing level by 24 positions to cover the additional level of work with the new NRC licensees. These new staff positions will be technical RHP series and administrative, and will be trained to perform the x-ray program related work that existing RP Program staff will not be able to perform, due to their shift to and increased materials licensing and inspection workload. Some new administrative staff will be primarily working on AS tasks, e.g., clerical staff for NRC records integration and organization, compliance specialist, etc. The staffing of the DEP RP Program for the Agreement State program is adequate in scope and appropriate in depth. See RP Program organization charts for Central Office and Regions, with the anticipated immediate vacancies that will be filled shortly prior to and after signing the Agreement.

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3.3 Accomplishments towards Agreement State.

BRP has progressed steadily toward accomplishing the Agreement State program objectives described below. The following discussion describes specific steps that have been taken.

a) **Technically Capable Staff:** Beginning in 1995, the Department has continued to hire additional technical personnel to meet its staffing requirements. The excellent professional credentials of these personnel are described in the resumes provided with this application. Additional training has been provided for appropriate BRP technical staff as detailed in the AS training summaries also provided. Steps have been initiated to enter all appropriate BRP staff training records into qualification journals. When an individual has demonstrated competency in a particular area to management, the journal will be completed and the Department's training database will be updated by management. The routinely updated qualification journal will be used to assure that technical staff maintain the appropriate depth and breadth of training. Competency will be demonstrated to management before an inspector or license reviewer is allowed to independently perform an inspection (or issue a license) at a NRC licensed facility.

As noted above, BRP has the necessary statutory authority to administer an effective Agreement State program.

b) **Adequate Emergency Response Capabilities:** BRP has well over 25 years experience with response to incidents involving loss, theft, fire and/or damage involving radioactive material. The Regions routinely respond to approximately 40 - 50 incidents per year. The command structure is also available for personnel paging, two-way radio communication, supplementary vehicles and survey instruments and administrative coordination. BRP has always worked closely with the NRC in responding to emergencies. The combination of the Department's Regional Offices located in Pittsburgh, Harrisburg and the Norristown will enable the Department to provide prompt on-site emergency response services throughout the State.

c) **Necessary Radiation Measuring Instrumentation / Laboratory Support:** As described in this application and narrative, BRP has acquired adequate instrumentation and laboratory support for the Agreement State program. The Emergency Response Section has developed an administrative system to ensure that equipment is properly maintained, calibrated, inspected, controlled and replaced as necessary. In fact, the Commonwealth may be the best equipped state for radiological events.

d) **Adequate Funding:** BRP has an approximate 8 million dollar current budget for salaries, training and equipment. Fees are placed in "restricted funds" and provide an adequate financial base for its programs. And, a realistic license fee structure is in place to support Agreement State operations. We anticipate about 2 million dollars a year in additional revenue once we become an Agreement State. Enclosed with this application is a summary showing the broad overview of these RP Program fiscal provisions.

e) **The Bureau of Office Systems and Services** manages the Department's procurement, Central Office advancement account, contract compliance, warehousing, general fixed asset accountability, surplus property management, fleet management, commercial real estate leasing, commercial property management, Commonwealth-owned land and building inventory, Commonwealth-owned surplus land and building report, voice communications systems, radio-communications systems, new Department headquarters building, records management, publications management, forms management, word processing, DEP Central Office Duplicating, office systems, DEP mail and messenger services, Commonwealth copier

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program, state insurance fund, Pennsylvania Bulletin control and submission, and DEP Administrative Manual. These services are provided to the BRP on a routine basis by written and verbal request.

- f) Clerical Support - DEP provides one clerical support person to each of the three Regions. Central Office BRP employs several administrative support staff. Additional clerical staff will be assigned as necessary to support program workload.
- g) Data Processing - All of the personnel in the Bureau of Radiation Protection have personal computers that contain adequate software capabilities including: word processing, spreadsheet, data base management and telecommunications.
- h) Public Information - The Department has dedicated a considerable amount of time and effort to informing the citizens of Pennsylvania about the Commonwealth's radon, low-level radioactive waste and radiation protection programs, and opportunities for the public to participate at key decision points. DEP also has a web site for public information and press office staff assigned to each Program and Region.
- i) Confidential Information - The release of medical or proprietary information related to site personnel is afforded maximum protection consistent with the requirements of 25 Pa. Code § 215.14 (relating to availability of records for public inspection). Unless the Department determines that disclosure is in the public interest, or is necessary for the Department to carry out its duties under the Radiation Protection Act, the following records are not available for public inspection:
 - (1) Trade secrets or secret industrial processes customarily held in confidence;
 - (2) A report of investigation or inspection, not pertaining to safety and health in industrial plants, which would disclose the institution, progress or results of an investigation undertaken by the Department;
 - (3) Personnel, medical and similar files, the disclosure of which would operate to the prejudice or impairment of a person's reputation or personal safety.

4.0 LICENSING OF LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY

The authority for licensing and regulation of the use and disposal of radioactive materials at the federal level is vested in the NRC. However, under the terms of Section 2746 of the Atomic Energy Act of 1954, as amended, a state that can demonstrate a regulatory program that is compatible with the federal program may receive NRC authorization to regulate the use and disposal of radioactive materials within that state.

The Pennsylvania Act 1984-147, Section 201; and Act 1988-12, Section 301(2); authorize the Governor of Pennsylvania, on behalf of the Commonwealth, to enter into agreements with the NRC to assume authority to regulate the use and disposal of certain radioactive materials. In his December 1995 letter to the NRC, Governor Ridge formally announced Pennsylvania's intent to assume full Agreement State authorization from NRC, including the authority to regulate the disposal of low-level radioactive waste. However, we will not license sealed source and device manufacturers, nor will we license uranium mills.

Since Pennsylvania has been selected as the host state for the LLRW Disposal Facility for the Appalachian States LLRW Compact, it has enacted laws, described earlier under Statutory Authority, that authorize it to promulgate and implement a comprehensive program to regulate the LLRW disposal facility. Act 1988-12 in Section 301(2) empowers the Department to implement a regulatory, inspection, enforcement and monitoring program consistent with the

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terms of an agreement between the United States Nuclear Regulatory Commission and the Commonwealth, as provided for in Section 201 of Act 1984-147, and this Act (1988-12). Section 301(4) of Act 1988-12, authorizes the Department to license the regional LLRW facility operator in accordance with Section 308 of that Act. Act 1988-12 also authorizes promulgation of appropriate and relevant regulations for licensing the regional facility and its operator.

The required regulations for licensing the LLRW disposal facility are established in Title 25 of the Pennsylvania Code, Chapter 236, Low-Level Radioactive Waste Management and Disposal. The requirements for licensing the regional facility operator and the license review procedures and standards are described in Subchapter C of Chapter 236. Requirements for the content of the license application are specified in Section 236.204 through 236.211. Review procedures and standards are presented in Sections 236.221 through 236.227, and amendments/changes to the license are contained in Sections 236.241 through 236.247. In its February 4, 1993 letter to the Department, NRC found that the Chapter 236 regulations were compatible with the applicable federal regulations.

Details regarding the LLRW disposal facility licensing program is included in with this application.

4.1 Appalachian State Low-Level Radioactive Waste Commission

The Appalachian States Low-Level Radioactive Waste Commission (Commission) was created by the Pennsylvania General Assembly in 1985, under a compact entered into by the states of Pennsylvania, Delaware, Maryland and West Virginia. The Congress of the United States consented to the Compact in May 1988. The main purpose for the establishment of the Compact was to provide for the regional management and disposal of LLRW in response to the Federal laws. Pennsylvania has been designated as the initial host state for the regional LLRW disposal facility because it generates much more LLRW than the other three party states. The Commission provides for representation of various states of the Compact, in addition to other duties and powers assigned to it by the Pennsylvania Act 1985-120. A copy of this Act is included in with this application.

The Commission consists of two voting members from each party state, appointed according to the laws of each party state. The host state is entitled to appoint two additional voting members to the Commission, and thus Pennsylvania has four voting members out of ten. An additional voting member shall be appointed to the Commission who shall be a resident of the host county or municipality where the disposal facility is to be located. Alternate members are designated by each party state to vote and act in the member's absence.

The powers and duties of the Commission are listed under Article 2(B) of Act 1985-120. Most of its powers are administrative in nature and forbid it to license, regulate or otherwise develop the regional LLRW disposal facility. Salient features of some of its powers and duties are as follows:

1. Conduct research and establish regulations to promote a reasonable reduction of volume and curie content of LLRW generated in the region. However, the Commission has not established any regulations so far.
2. Assemble and make available, to the party states and to the public, information concerning LLRW management and disposal needs, technologies and problems.
3. Keep current and annual inventories of all generators within the region, based on information provided by the party states.
4. Keep an inventory of all regional facilities and specialized facilities.
5. Shall publish an annual report to the governors of the signatory party states.

5.0 LABORATORY SUPPORT

When the BRP is required to independently establish engineering properties of waste and to perform independent environmental monitoring, such studies will be performed by the DEP Bureau of Laboratories (BOL). In the event that the BOL lacks the capability to perform the requisite analyses, DEP is authorized pursuant to Section 501 (relating to coordination of work) and Section 502 (relating to cooperative duties) of the Administrative Code of 1929, as amended, to request such services from other agencies within the Commonwealth. When necessary, the Department will enter into a memorandum of understanding or cooperative agreement with Pennsylvania's Department of Transportation (PennDOT) Materials and Testing Laboratory. Tests performed by PennDOT's Materials and Testing Laboratory include classification tests using gradation, liquid limit, and plastic limit; moisture density; and foundation testing through shear and consolidation testing. The BOL consisting of Analytical and Support Divisions "A" and "B" is a component of the Filed Operations Deputate. These laboratories conduct bacteriological, biological, chemical, microbiological, physical and radiological testing. The BOL provides analytical services to environmental, regulatory, planning and advisory programs including, but not limited to, testing of water, wastewater, milk, air contaminants, fuel, toxic materials and chemicals, soils, aquatic life and insects.

Analytical and Support Division "A" consists of the following four sections: Sample Receiving and Computer Operations Section; Air Chemistry and Gravimetric Chemistry Section, Trace Metals Analyses Section and Automated Analyses Section. The Sample Receiving and Computer Operator section is responsible for the receipt of samples, computer log-on, preparation and tracking of samples. Additional responsibilities of this section include receipt, storage, and inventory control of chemicals, gases and supplies utilized by the BOL. Physical, wet chemistry and gravimetric analyses on high volume air filters, source emission tests and freezing point depression measurements, are representative of the type of analyses performed in the Air Chemistry and Gravimetric Analysis Section of the BOL. The Sections of Trace Metals Analyses and Automated Analyses are responsible for measurement of metals using various automated instrumentation (i.e., atomic absorption and ICP spectrophotometers) and the measurement of ions and other compounds utilizing automated wet chemistry systems and ion chromatographs, respectively. The Analytical and Support Division "B" of the BOL consists of the following sections: Radiation Measurements; Organic Chemistry; Mobile Analytical Services; Biological Services; and Laboratory Accreditation and Quality Assurance.

The Radiation Measurements Section (RMS) is responsible for the measurement of ionizing radiation and the identification and quantification of radionuclides in such environmental media as water, sediments, wastes, air, milk and vegetation. Methodologies utilized in the RMS include very low-level gamma spectroscopy using intrinsic germanium detectors on an ND 6700 system, soft beta by liquid scintillation, alpha and beta by thin window proportional counting, Strontium 89-90 by ion exchange with beta counting, and Radium-226 by radon emanation. With the exception of Iodine-131 in milk, the analytical sensitivities used equal or exceed the criteria of the NRC Cooperative Agreement between the Department and the Commission. This agreement is more fully explained below.

BRP and the RMS interact on a day to day basis, with RMS analyzing nearly two thousand samples annually for the BRP. Most of these samples are generated in response to the BRP's program to carry out independent multimedia environmental radiation monitoring and ambient gamma radiation monitoring with thermoluminescent dosimeters (TLDs) at the following NRC licensed sites: Beaver Valley, Peach Bottom, Three Mile Island, Susquehanna and Limerick Nuclear Power Reactor, and selected other NRC licensed sites. The Department's BOL conducts a quality assurance program which will include BOL's participation in the United States Environmental Protection Agency's Environmental Radioactivity Laboratory Intercomparison Studies or an equivalent program. During aberrations in the demand for laboratory analyses, the BRP, following consultation with RMS staff, establishes priority for

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radioanalytic activities. When necessary, the BRP and the RMS jointly establish scheduling, detection limits and analytical priorities.

The Organic Chemistry Section of the BOL is responsible for the analysis of water, sediments, fuels, wastes, air and fish flesh for organic contaminants. The Mobile Analytical Services Section provides on-site analyses of organic and inorganic parameters for specified projects such as emergency analytical responses to environmental incidents. The Biological Services Section of the BOL is responsible for identification of microbiological indicators of pollution and the conduct of bioassays and chlorophyll analysis. Implementation and monitoring of the BOL's quality assurance program and maintaining laboratory procedures is carried out in the Laboratory Accreditation and Quality Assurance Section of the Department's Bureau of Laboratories.

6.0 RADIATION PROTECTION PROGRAM EQUIPMENT

The Central Office and the three Regional Offices maintain an inventory of radiation survey, testing, and analysis equipment. Again, the PA RPP has extensive inventories of equipment, some mounted in vehicles, but mainly, the equipment is battery operated and portable. Each office has equipment capable of detecting alpha, beta and gamma radiation. Some of the equipment is committed to emergency response kits to be used in response to incidents at nuclear power plants. Each region is responsible for the maintenance and calibration of the equipment. Actual equipment varies by region, and some is still under procurement with DHS grant funds. A detailed list of the exact equipment maintained by each region is available.

7.0 TECHNICAL ASSISTANCE

Technical assistance is available to BRP from a variety of sources; a partial list of which can be found in this section.

7.1 Intra-agency Technical Assistance

Technical assistance in the review of a license application for the low-level radioactive waste disposal facility is available within DEP. The organizational structure of the Department is such that the Director of the Bureau of Radiation Protection can request technical assistance from any other bureau within DEP. The following areas of expertise within DEP are available to the RP Program, and could be utilized for LLRW disposal program for the licensing and regulation of the regional LLRW disposal facility, or any other licensing activity:

- Deputate for Air, Waste and Radiation Management
 - Biological, chemical, environmental sampling and testing
- Deputate for Water Management
 - Water resources evaluation, flood control, biotic evaluation, erosion
- Deputate for Management and Technical Services
 - Civil engineering, construction management
- Deputate for Mineral Resources Management
 - Mineral resources evaluation

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Deputate for Field Operations
Bureau of Laboratories

7.2 Interagency Technical Assistance

The Department is authorized under Section 501 (relating to coordination of work) and Section 502 (relating to cooperative duties) of the Administrative Code of 1929, as amended, to request such services from other agencies within the Commonwealth. For example, the Department of Transportation (PennDOT) can provide technical assistance in areas of materials engineering, soils engineering and construction materials testing. Additionally, the Department of Conservation and Natural Resources (DCNR) can provide support in the areas of geology, seismology, geochemistry, geography and endangered species.

7.3 Technical Assistance From Outside Agency

The Pennsylvania LLRW Disposal Program has received considerable technical assistance in development and licensing of LLRW disposal facility from the National Low-Level Waste Management Program at Idaho National Engineering and Environmental Laboratory (INEEL). The National program is funded by the Department of Energy (DOE), and its objective is to provide technical expertise, information, and other resources to states and compacts in developing LLRW facilities. This is a valuable resource that has provided very significant help and information to the Pennsylvania program and will continue to do so if needed in the future.

7.4 Acquisition of Contractor Services

Procedures and mechanisms for the timely procurement of contractual assistance are set forth in the Commonwealth's Contracting for Services Manual (M215.1, Amended), published by the Governor's Office of the Budget, Bureau of Financial Management pursuant to 4 PA. Code sec. 1.331. This manual approved by the Office of General Counsel and the Office of Attorney General and utilized by all agencies under the Governor's jurisdiction, provides a standard approach to the procurement of contractual services and serves as a comprehensive guide for individuals involved in the contracting process.

Section 3.3 of the Contracting for Services Manual authorizes the procurement of services for emergency situations. The emergency purchase of service provision is intended to allow agencies to immediately obtain the required services without following the standard contracting procedures. BRP fully expects to obtain contract services and consultant to assist in implementing certain aspects of the Agreement State program, e.g., final status surveys at D&D sites, physicians and physicists to assist in special investigations of overexposures to radiation, etc.

8.0 LEGAL ASSISTANCE & SUPPORT

Section 204 of the Commonwealth Attorney's Act, Act of October 15, 1980 (P.L. 950, No. 164) (71 P.S. §732-204), provides that the Attorney General, upon the request of the Governor or head of any Commonwealth Agency, shall furnish legal advice concerning any matter or issue arising in connection with the exercise of powers or the performance of duties of the Governor or agency of the Commonwealth.

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As set forth in Section 301 of the Commonwealth Attorney's Act, General Counsel who serves at the pleasure of the Governor, appoints to Executive agencies including the Department of Environmental Protection a chief counsel and the necessary assistant counsel. In addition, the Office of General Counsel which provides legal services to the Governor, supervises, coordinates and administers legal services provided by the Department's chief counsel.

The Office of Attorney General has delegated to the Office of General Counsel all administrative and civil matters related to the enforcement of the Commonwealth's environmental statutes and regulations. However, criminal matters are referred to the Office of Attorney General's Environmental Crimes Unit.

The Office of Chief Counsel provides legal advice and litigation support to every program in the Department on any matter or issue related to the exercise of the official duties and responsibilities of the Department. Under Section 401 of the Commonwealth's Attorney's Act, the Department's Chief Counsel may request the assistance of the General Counsel, the Attorney General or both in any legal action involving the Department. The Department's Office of Chief Counsel employs eighty (80) attorneys in offices located in Norristown, Harrisburg, Meadville, Pittsburgh and Wilkes-Barre, PA. The Office of Chief Counsel consists of the following bureaus: Legal Services, Litigation (five offices), Superfund and Regulatory Counsel.

The Bureau of Regulatory Counsel located in Harrisburg serves as counsel to the Department and assigns an attorney to serve as counsel to each principal regulatory program. Within this Bureau, an attorney is assigned to advise the BRP on all regulatory and statutory matters of the Commonwealth's radiation protection program. In addition, counsel assigned to the BRP is required to:

1. Review and comment on proposed legislation.
2. Review and comment on proposed regulations, policies and procedures.
3. Initiate on behalf of the Department or defend against legal actions which involve Department officials or unusual questions of law and policy.
4. Assist the Bureau of Litigation in the development and implementation of the department's overall enforcement strategy.

The Bureau of Litigation has the primary responsibility for initiation of all enforcement action, and supervising Department personnel when conducting investigations pertinent to enforcement actions. In addition, the Bureau of Litigation has primary responsibility for providing counsel to the Regional Offices of the Department on enforcement, inspection, and legal interpretation questions to assure statewide uniformity of action.

9.0 DEP ADVISORY COMMITTEES

DEP encourages public participation in implementing its many programs. To that end, DEP under the Radiation Protection Act may establish special advisory committees as may be necessary to assist the department in drafting rules and regulations and to advise the department regarding implementation of specific portions of the regulations or specific programs of the department. The Secretary appoints advisory committees whose members represent various professional, governmental, academic, business, and other citizen groups that can provide useful advice to the programs. At present, the following advisory committees are actively involved in assisting the BRP programs.

9.1 Radiation Protection Advisory Committee

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The Radiation Protection Advisory Committee (RPAC) reviews draft and proposed regulations and provides advice to the Department. The Committee consists of at least 11 members selected by the Secretary of the Department.

9.2 Low-Level Waste Advisory Committee

As required under Section 317 of the Low-Level Radioactive Waste Disposal Act, the Secretary of the Department has appointed a Low-Level Waste Advisory Committee (LLWAC) that consists of 23 members, 19 of which represent local government, environmental, health, engineering, business, academic, and other public interest groups. The other four members of the Committee represent the Pennsylvania General Assembly. In addition, the committee also has a representative of the Department who is a nonvoting member. Following receipt of the license application for the regional low-level radioactive waste disposal facility, the potential host municipality and host county will each nominate one additional member to the LLWAC.

The LLWAC reviews and comments on draft regulations necessary for the implementation of the Low-Level Radioactive Waste Disposal Act. The LLWAC may also advise the Department regarding policies and issues related to the implementation of the Act when requested to do so by the Department.

9.3 Citizens Advisory Council

The Citizens Advisory Council (CAC) reviews all environmental laws of the Commonwealth and makes appropriate recommendations for revision, modification and codification. The CAC considers, studies and reviews the work of the Department and, upon request makes recommendations for improvement to the Department. The CAC reports annually and on an interim basis (when necessary) to both the Governor and the General Assembly. The CAC includes persons knowledgeable in ecology, toxicology, pharmacology, and industrial technology. The Council is comprised of 19 members, the Secretary of the Department of Environmental Resources, six members appointed by the Governor, 6 appointments by the President Pro Tempore of the Senate, and 6 members appointed by the Speaker of the House of Representatives.

10.0 EMERGENCY RESPONSE MANAGEMENT

10.1 Primary Responsibility

The Pennsylvania Emergency Management Agency (PEMA) is primarily responsible for the overall policy and direction of the State-wide civil defense and disaster program in this Commonwealth. In accordance with 35 P.S. §7313, PEMA prepares and maintains a current Pennsylvania Emergency Management Plan for the prevention and minimization of injury and damage caused by disaster, prompt and effective response to disaster and disaster emergency relief and recovery. PEMA is empowered to coordinate Federal, Commonwealth and local disaster emergency management activities and to provide technical advice and assistance to Commonwealth agencies and political subdivisions in the preparation of disaster emergency management plans. PEMA is required to respond to disaster relating to atomic energy operations or radioactive materials or objects or materials possessing a radiation-producing capacity. A Radiological Emergency Response Preparedness, Planning and Recovery Program (REP) is maintained in PEMA consistent with the Commonwealth's Emergency

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Management Plan, and applicable Federal and State laws. Specific functions of PEMA under the REP include, but are not limited to:

1. Serving as the point of contact for interface between affected facilities and other Commonwealth agencies, departments, counties, municipalities and school districts;
2. Annual review and revision, as necessary, of Annex E, "Radiological Emergency Response to Nuclear Power Plants," of the Commonwealth's Emergency Management plan and annual review of the onsite emergency response plan of each utility to ensure consistency with the annex; and
3. Developing planning and preparedness procedures for emergency response within the ingestion exposure pathway zone. The statewide plan for radiological emergency response to nuclear power plant incidents is found in Annex E of the Commonwealth Emergency Operations Plan.

10.2 Emergency Planning Responsibilities

Under the Commonwealth's Emergency Operations Plan, the Department's Bureau of Radiation Protection is responsible for technical assessment of accident situations and making protective action recommendations, as necessary, to PEMA. PEMA implements the recommendations through county and local government emergency management agencies. BRP regional staff respond to radioactive materials transportation incidents anywhere in the Commonwealth. Additional assistance is also available from regional DEP emergency response staff. BRP participates in biannual exercises scored by NRC and/or the Federal Emergency Management Agency at each of the five nuclear power stations in the Commonwealth. BRP also participates in many practice drills throughout the year. Staff training for response to incidents and accidents includes several curricula offered by Federal Emergency Management Agency (FEMA) at the Emmitsburg, MD facility, and at Las Vegas. In-house refresher training is provided prior to exercises. The BRP technical staff also participate in dose assessment training offered by nuclear utilities.

11.0 SUMMARY

The Commonwealth of Pennsylvania and DEP are committed to administering a high quality Agreement State program that will be effective in protecting the public health, safety, welfare and the environment. The commitment to this goal is evidenced by the achievements described in this document. BRP has the authority and has assumed the initiatives necessary for Agreement State status, including:

- The Department has the necessary statutory authority to assume the responsibilities required of an Agreement State; copies of the applicable statutes are included in this application.
- The State Public Official and Employee Ethics Laws were passed to strengthen the faith and confidence of the people of the Commonwealth in their government. The applicable statutes are provided.
- Regulations compatible with those of the NRC have been developed and adopted. A set of applicable regulations are included.
- BRP has gained extensive experience in licensing radioactive material. The Licensing and Inspection and Enforcement Programs for NARM have been in place for the past 25+ years.

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- Emergency response capabilities have been frequently demonstrated in the past. NRC Region I and BRP have cooperated in responses to materials incidents for many years. Required fiscal support has been provided to fund the Agreement State program. Assuring availability of resources to administer an effective regulatory program.
- Additional professional staff have been hired to both supplement and complement the BRP technical staff who have managed a major NARM regulatory program for 25+ years. The staffing level for the Agreement State program is appropriate for the new NRC licensees, per recommendations in current NRC guidelines for Agreement State programs. Approvals are in place to allow up to an additional 24 positions to back-fill x-ray related workload; that is, as RP Program shift to NRC material licensee work.
- Staff members have attended numerous training courses on a variety of topics related to the regulation of radioactive material. A record of training attended by the staff members, or equivalent experience, is included in this application.
- BRP has sufficient instrumentation to detect and measure radiation, including sophisticated fixed and mobile radiochemistry laboratories. A list of various instruments in each RO is available.
- The Commonwealth of Pennsylvania, Department of Environmental Protection and Radiation Protection Program have committed sufficient technical and administrative support to the Agreement State program.
- Pennsylvania has demonstrated its competence in the control of radiation hazards and, during the past ten years, aggressively prepared for Agreement State responsibilities.
- The Commonwealth of Pennsylvania is prepared and qualified to assume regulatory responsibility for byproduct material, source material, special nuclear material in quantities not sufficient to form a critical mass, and the licensing of a low-level radioactive waste disposal facility.

Organization Charts

Edward G. Rendell, Governor

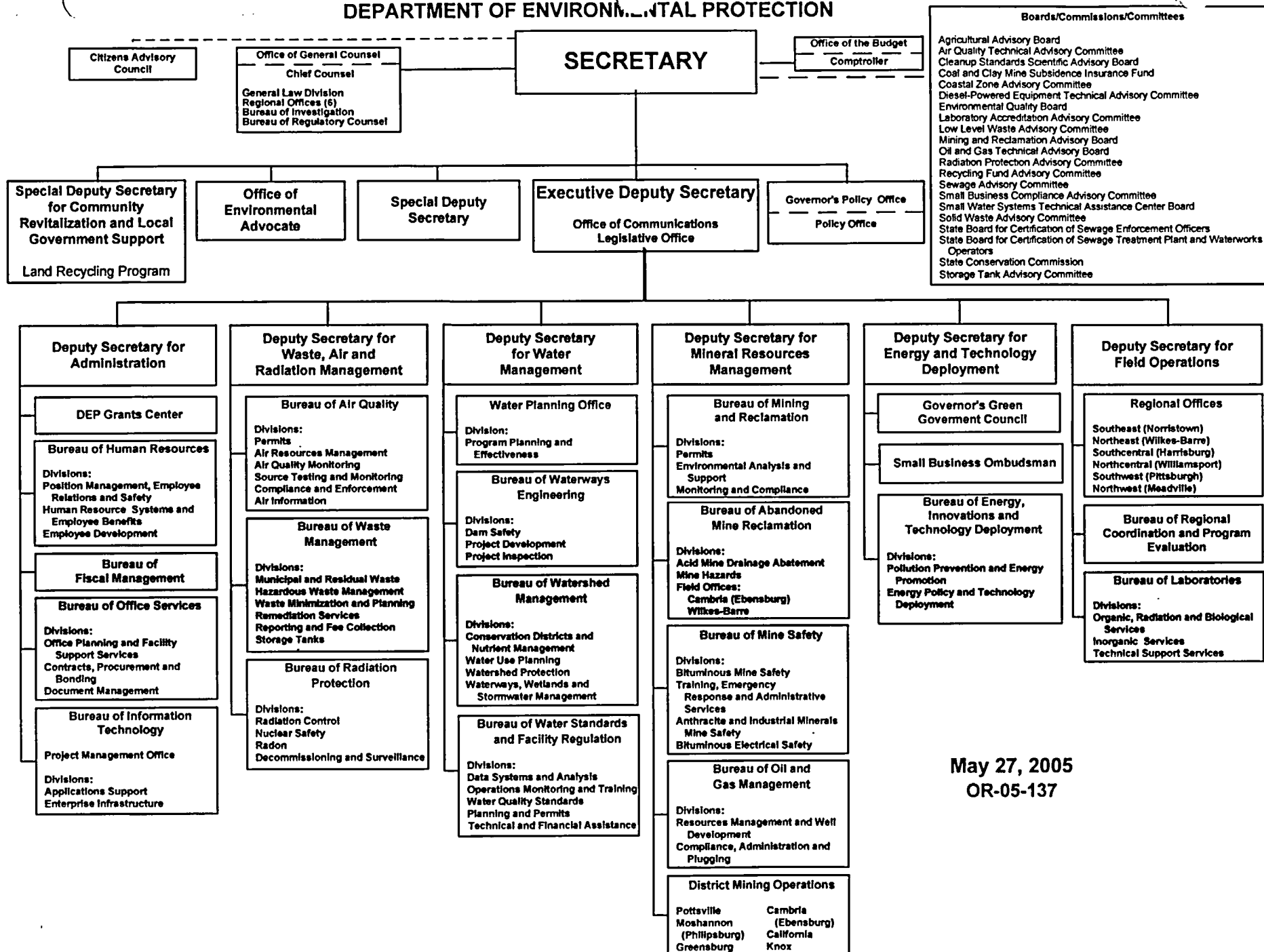
Cabinet Officials

The Governor's Cabinet comprises the directors of various state agencies. These directors --usually called Secretaries-- are appointed by the Governor and confirmed by the Senate. Each Secretary is responsible for the oversight of his or her agency. An equally important responsibility of all Cabinet members is advising the Governor on subjects related to their respective agencies. A list of the current Governor's Cabinet officials is below.

| | |
|-------------------------------|---|
| <u>Barbara Adams</u> | General Counsel |
| <u>Jeffrey Beard</u> | Secretary of Corrections |
| <u>Allen D. Biehler</u> | Secretary of Transportation |
| <u>Donna Cooper</u> | Secretary of Planning & Policy |
| <u>Pedro Cortés</u> | Secretary of the Commonwealth |
| <u>Steve Crawford</u> | Secretary of Legislative Affairs |
| <u>James P. Creedon</u> | Secretary of General Services |
| <u>Michael DiBerardinis</u> | Secretary of Conservation and Natural Resources |
| <u>Nora Dowd Eisenhower</u> | Secretary of Aging |
| <u>Gregory Fajt</u> | Secretary of Revenue |
| <u>Rosemarie Greco</u> | Director of Health Care Reform |
| <u>Calvin Johnson</u> | Secretary of Health |
| <u>James Joseph</u> | Pennsylvania Emergency Management Agency Director |
| <u>Catherine Baker Knoll</u> | Lieutenant Governor |
| <u>Diane Koken</u> | Insurance Commissioner |
| <u>Joe Martz</u> | Secretary of Administration |
| <u>Michael Masch</u> | Secretary of the Budget |
| <u>Kathleen McGinty</u> | Secretary of Environmental Protection |
| <u>Col. Jeffrey Miller</u> | State Police Commissioner |
| <u>Donald Patterson</u> | Inspector General |
| <u>Estelle Richman</u> | Secretary of Public Welfare |
| <u>William Schenck</u> | Secretary of Banking |
| <u>Stephen Schmerin</u> | Secretary of Labor and Industry |
| <u>Dennis Wolff</u> | Secretary of Agriculture |
| <u>General Jessica Wright</u> | Adjutant General of Military and Veterans Affairs |
| <u>Dennis Yablonsky</u> | Secretary of Community and Economic Development |
| <u>Gerald Zahorchak</u> | Secretary of Education |

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DEPARTMENT OF ENVIRONMENTAL PROTECTION



May 27, 2005
OR-05-137

Revised 02/22/06

Note: a dotted line represents a major matrix liaison relationship.

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graph TD
    Director[Director  
David Allard]
    NRC[U.S. Nuclear Regulatory Commission (NRC)]
    RPPL[Regional Director / RP Program Liaison]
    RPPM[Terry Derstine, RPPM  
Southeast Regional Office]
    RPPS[John Maher, RPPS  
South Central Regional Office]
    RPPM2[James Yusko, RPPM  
Southwest Regional Office]
    RPAC[Radiation Protection Advisory Committee]
    LLWAC[Low-Level Waste Advisory Committee]
    SS[Support Services Section  
Carla Hoffman, AO1]
    CS[Clerical Support  
Penelope Hartman, CS2  
Tina Bowers, CT2  
Lynsay Depaoli, CT2  
Lu-Ann Handley, CT2  
Tammy Masser, CT3  
Gail Ramsey, CT2  
Donielle Skelton, CT3  
Cheryl M. Laatsch, CT2]
    AS[Administrative Support  
Sandy Rudy, AA1  
Mary Anne Schneck, CT3]
    DO[Director's Office  
Ben Seiber, PA3  
Ron Yost, ITT]
    BRC[Bureau of Regulatory Counsel  
Richard Morrison]
    OPC[Office of Policy & Communication  
Marge Hughes]
    RRPP[~ 32 Regional RP Program Staff and 3 Regional Counsel]
    ASCC[Appalachian States LLRW Compact Commission]
    RD[Radon Division  
Michael Pyles, Chief, RPPM]
    RCD[Radiation Control Division  
L. Ray Urciuolo, Chief, RPPM]
    DSD[Decommissioning & Surveillance Division  
Robert Maiers, Chief, NES]
    NSD[Nuclear Safety Division  
Rich Janati, Chief, NES]
    RCS[Radon Certification Section  
Vacant  
Kelly Oberdick, RHP2]
    RMS[Radon Monitoring Section  
Robert Lewis, Chief, RPPS  
Matthew Shields, RHP2  
Geno Simonetti, Jr., RHP2]
    AXS[Accelerator and X-ray Section  
Stephen Williams, Chief, RPPS  
Carol Llewellyn, RHP2  
Joe Melnic, RHP2]
    RMS2[Radioactive Materials Section  
Ronald Hamm, Chief, RPPS  
Charley Smalls, RHP2  
Scott Wilson, RHP2]
    DS[Decommissioning Section  
Bryan Werner, RHP2  
Jeffrey Whitehead, RHP2]
    ESS[Environmental Surveillance Section  
Tonda Lewis, Chief, RPPS  
John Chipppo, RHP1  
Sherry McLain, RPS  
Christopher Ott, RHP1]
    NSS[Nuclear Safety Section  
Dennis Dyckman, NE2  
Brad Fuller, NE2  
Michael Murphy, NE2  
David Ney, NE2  
Lawrence Ryan, NE2]
    ERWS[Emergency Response & Radioactive Waste Section  
Martin Vyenielo, Chief, RPPS  
James Barnhart, RHP2  
William Wagner, RHP2  
Dennis Gallagher, RHP1  
Randy Easton, RHP2]
    RPPM2[Regional RP Program Managers, Staff and Legal Counsel; EPA (for Radon and D&D); FDA (for X ray); NRC (for RAM and D&D)]
    BLS[Bureau of Labs Radiochem Section  
5 Staff]
    TML[TMI, LGS, PBAS, SSES, and BV Nuclear Plants]
    DER[DEP Emergency Response, Regional RP Program Staff, PEMA, nuclear utilities, and other local, state and federal agencies]

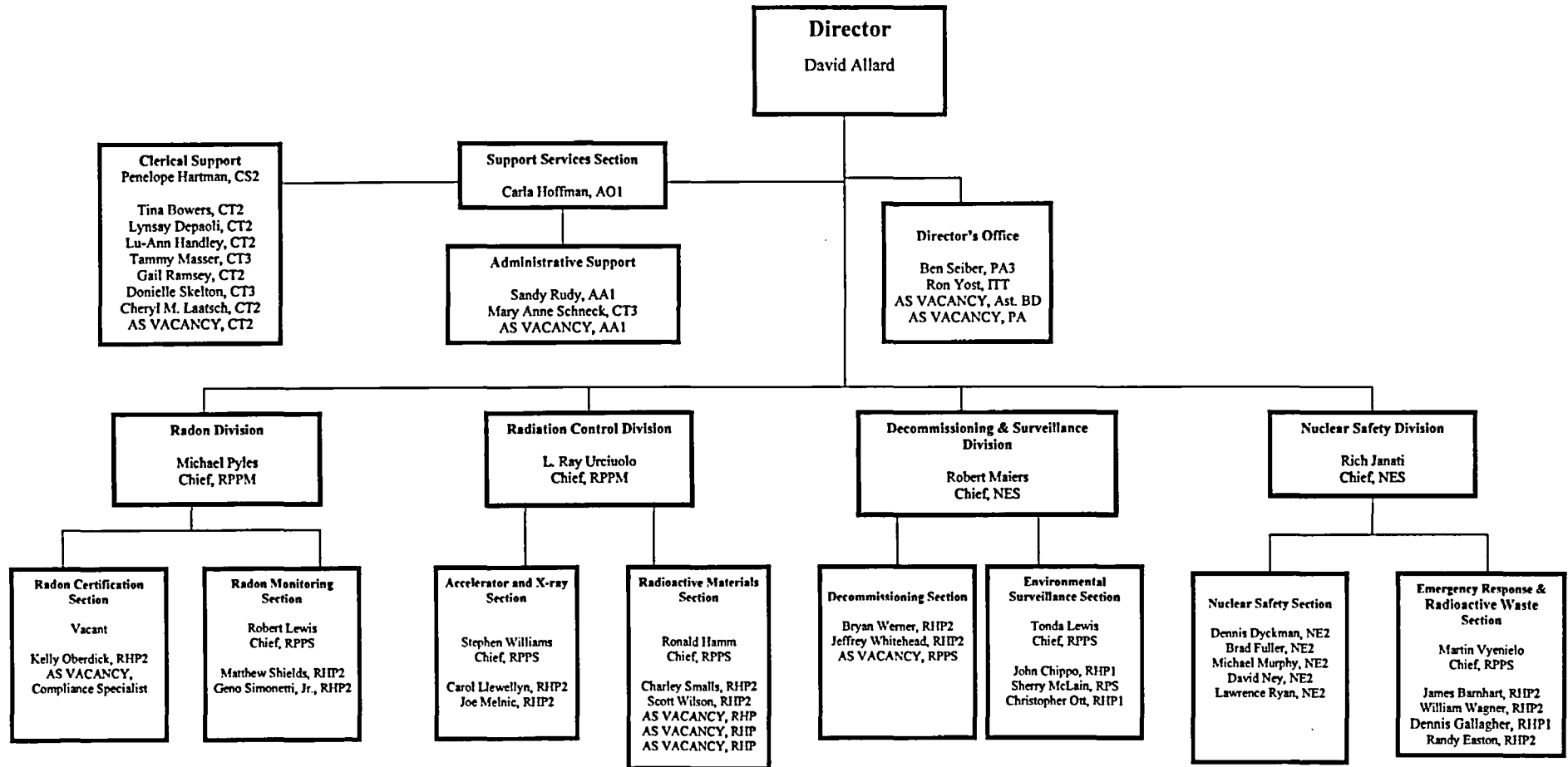
    Director -.-> NRC
    Director -.-> RPPL
    Director -.-> RPAC
    Director -.-> LLWAC
    Director -.-> SS
    Director -.-> CS
    Director -.-> AS
    Director -.-> DO
    Director -.-> BRC
    Director -.-> OPC
    Director -.-> RRPP
    Director -.-> ASCC
    Director -.-> RD
    Director -.-> RCD
    Director -.-> DSD
    Director -.-> NSD
    RD -.-> RCS
    RD -.-> RMS
    RCD -.-> AXS
    RCD -.-> RMS2
    DSD -.-> DS
    DSD -.-> ESS
    NSD -.-> NSS
    NSD -.-> ERWS
    RCS -.-> RPPM2
    RMS -.-> RPPM2
    AXS -.-> RPPM2
    RMS2 -.-> RPPM2
    DS -.-> RPPM2
    ESS -.-> BLS
    NSS -.-> TML
    ERWS -.-> DER
  
```

The organizational chart for the Regional Radiation Protection Program (RRPP) is structured as follows:

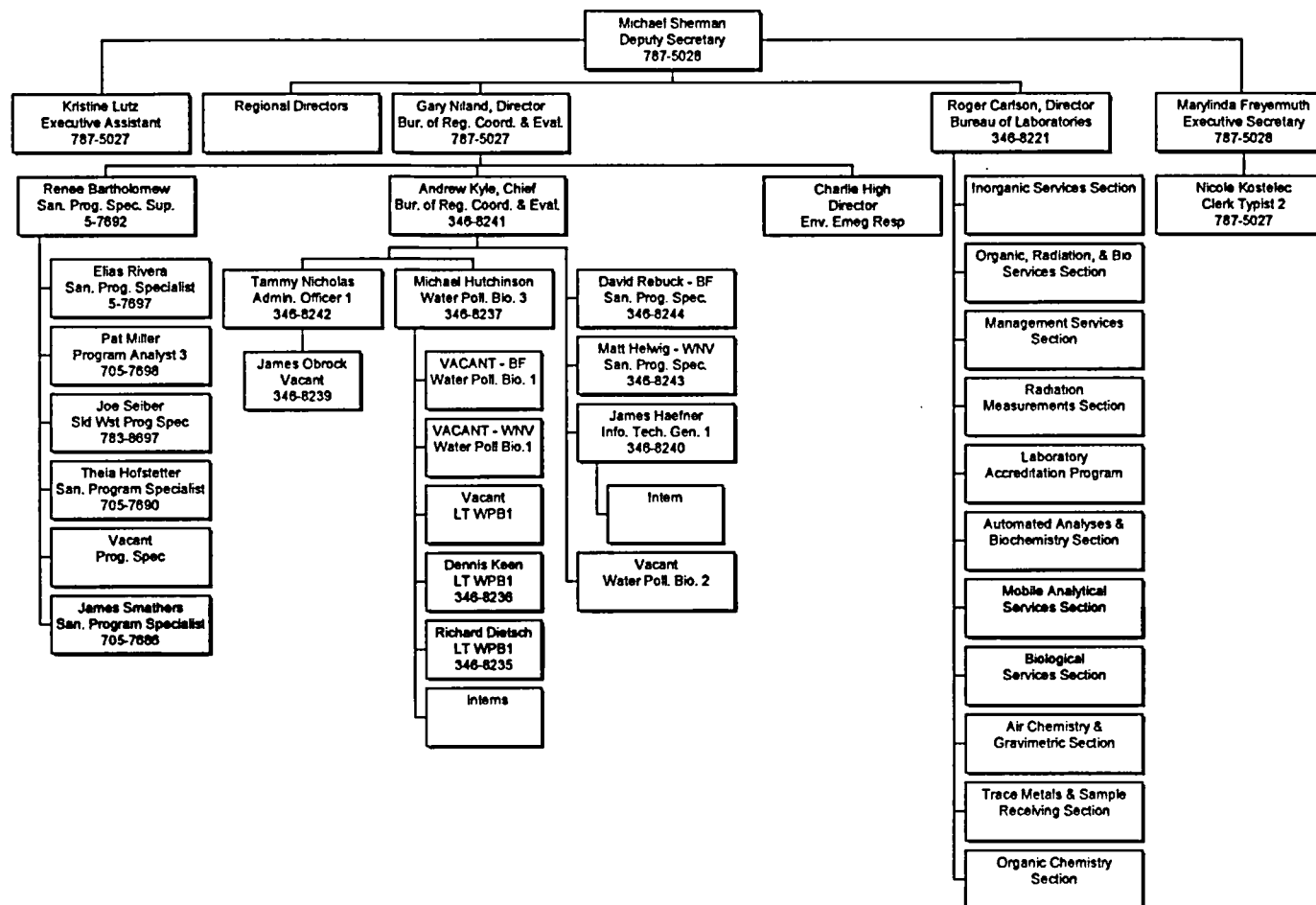
- Director:** David Allard
 - Advisory Committees:** Radiation Protection Advisory Committee, Low-Level Waste Advisory Committee
 - Support Services:** Support Services Section (Carla Hoffman, AO1), Clerical Support (Penelope Hartman, CS2), Administrative Support (Sandy Rudy, AA1, Mary Anne Schneck, CT3)
 - Director's Office:** Ben Seiber, PA3, Ron Yost, ITT
 - Regional Offices:** Regional Director / RP Program Liaison, Terry Derstine, RPPM (Southeast), John Maher, RPPS (South Central), James Yusko, RPPM (Southwest)
 - Other Key Roles:** Bureau of Regulatory Counsel (Richard Morrison), Office of Policy & Communication (Marge Hughes), ~ 32 Regional RP Program Staff and 3 Regional Counsel, Appalachian States LLRW Compact Commission
 - Divisions:**
 - Radon Division:** Michael Pyles, Chief, RPPM
 - Radon Certification Section: Vacant, Kelly Oberdick, RHP2
 - Radon Monitoring Section: Robert Lewis, Chief, RPPS; Matthew Shields, RHP2; Geno Simonetti, Jr., RHP2
 - Radiation Control Division:** L. Ray Urciuolo, Chief, RPPM
 - Accelerator and X-ray Section: Stephen Williams, Chief, RPPS; Carol Llewellyn, RHP2; Joe Melnic, RHP2
 - Radioactive Materials Section: Ronald Hamm, Chief, RPPS; Charley Smalls, RHP2; Scott Wilson, RHP2
 - Decommissioning & Surveillance Division:** Robert Maiers, Chief, NES
 - Decommissioning Section: Bryan Werner, RHP2; Jeffrey Whitehead, RHP2
 - Environmental Surveillance Section: Tonda Lewis, Chief, RPPS; John Chipppo, RHP1; Sherry McLain, RPS; Christopher Ott, RHP1
 - Nuclear Safety Division:** Rich Janati, Chief, NES
 - Nuclear Safety Section: Dennis Dyckman, NE2; Brad Fuller, NE2; Michael Murphy, NE2; David Ney, NE2; Lawrence Ryan, NE2
 - Emergency Response & Radioactive Waste Section: Martin Vyenielo, Chief, RPPS; James Barnhart, RHP2; William Wagner, RHP2; Dennis Gallagher, RHP1; Randy Easton, RHP2
 - Other Key Roles:** Bureau of Labs Radiochem Section (5 Staff), TMI, LGS, PBAS, SSES, and BV Nuclear Plants, DEP Emergency Response, Regional RP Program Staff, PEMA, nuclear utilities, and other local, state and federal agencies

BUREAU OF RADIATION PROTECTION

Revised 06/07/06

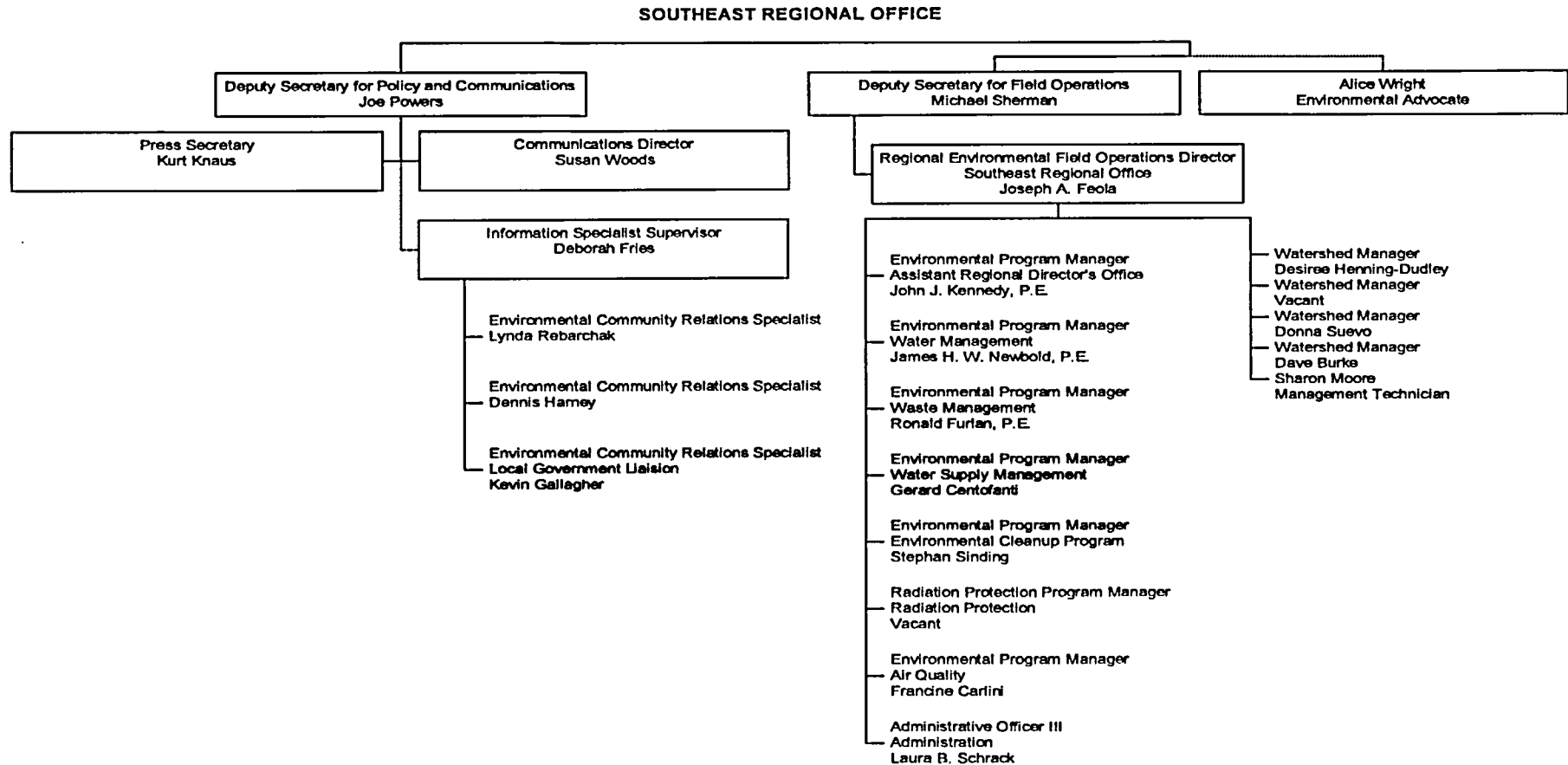


DEP – Office of Field Operations

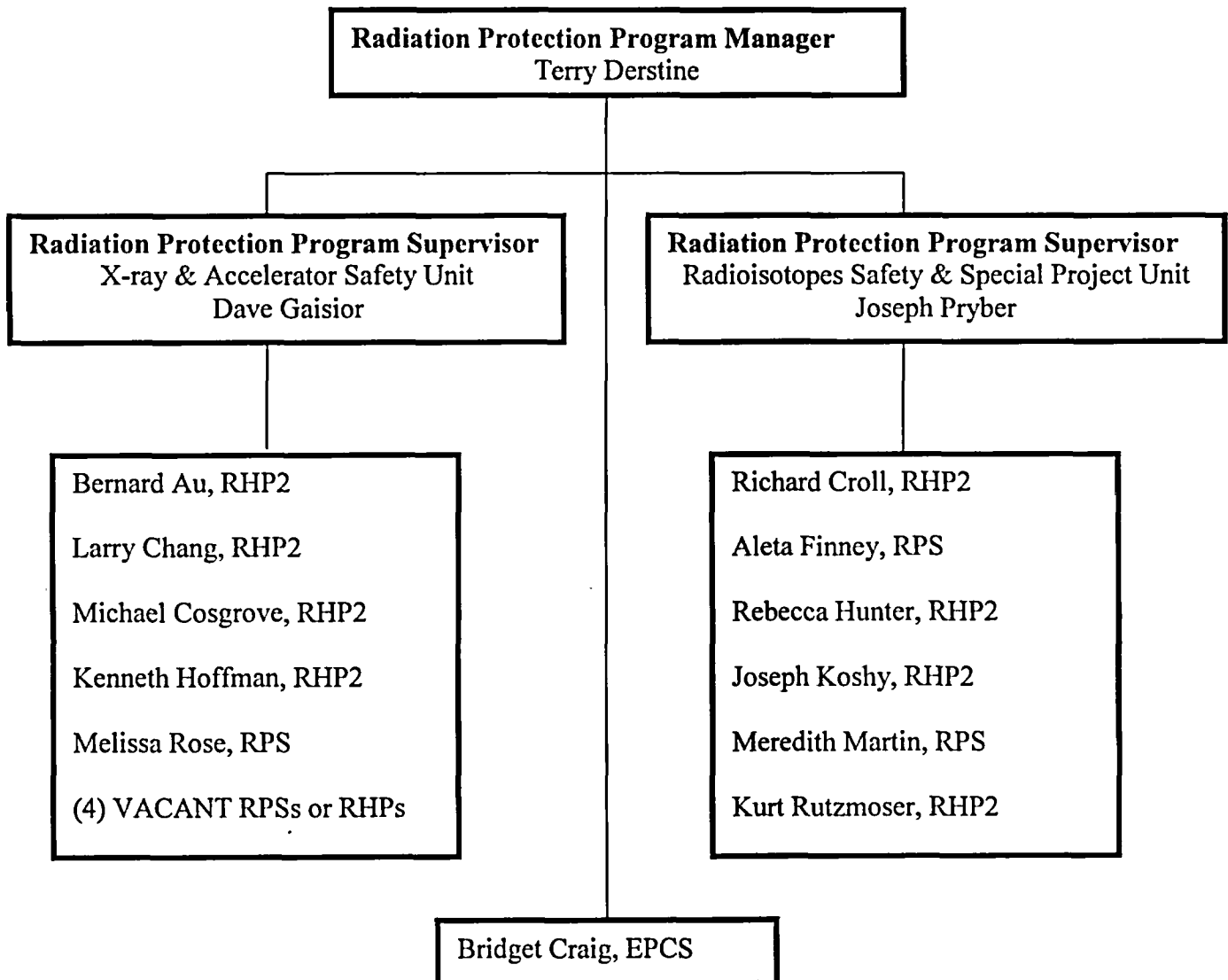


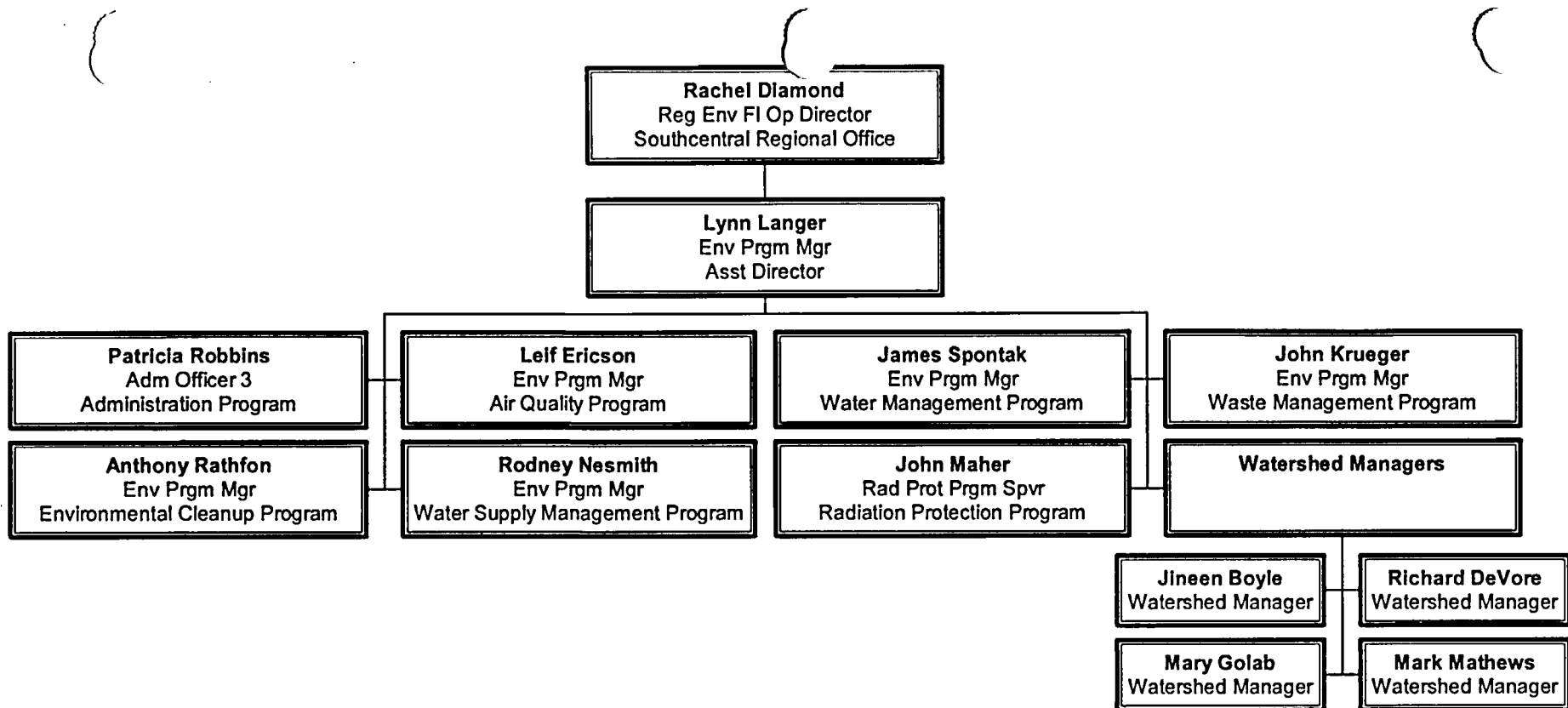
February 16, 2006

**SOUTHEAST REGIONAL OFFICE
ORGANIZATIONAL CHART
May 2, 2005**



RADIATION PROTECTION SOUTHEAST REGIONAL OFFICE





RADIATION PROTECTION SOUTHCENTRAL REGIONAL OFFICE

Radiation Protection Program Manager
Stephen Williams

Radiation Protection Program Supervisor
John Maher

Gerald Dworsak, RHP1

Michelle Dyarman, RHP2

Andrew Gardosik, RHP2

Roy Kitzer, RHP2

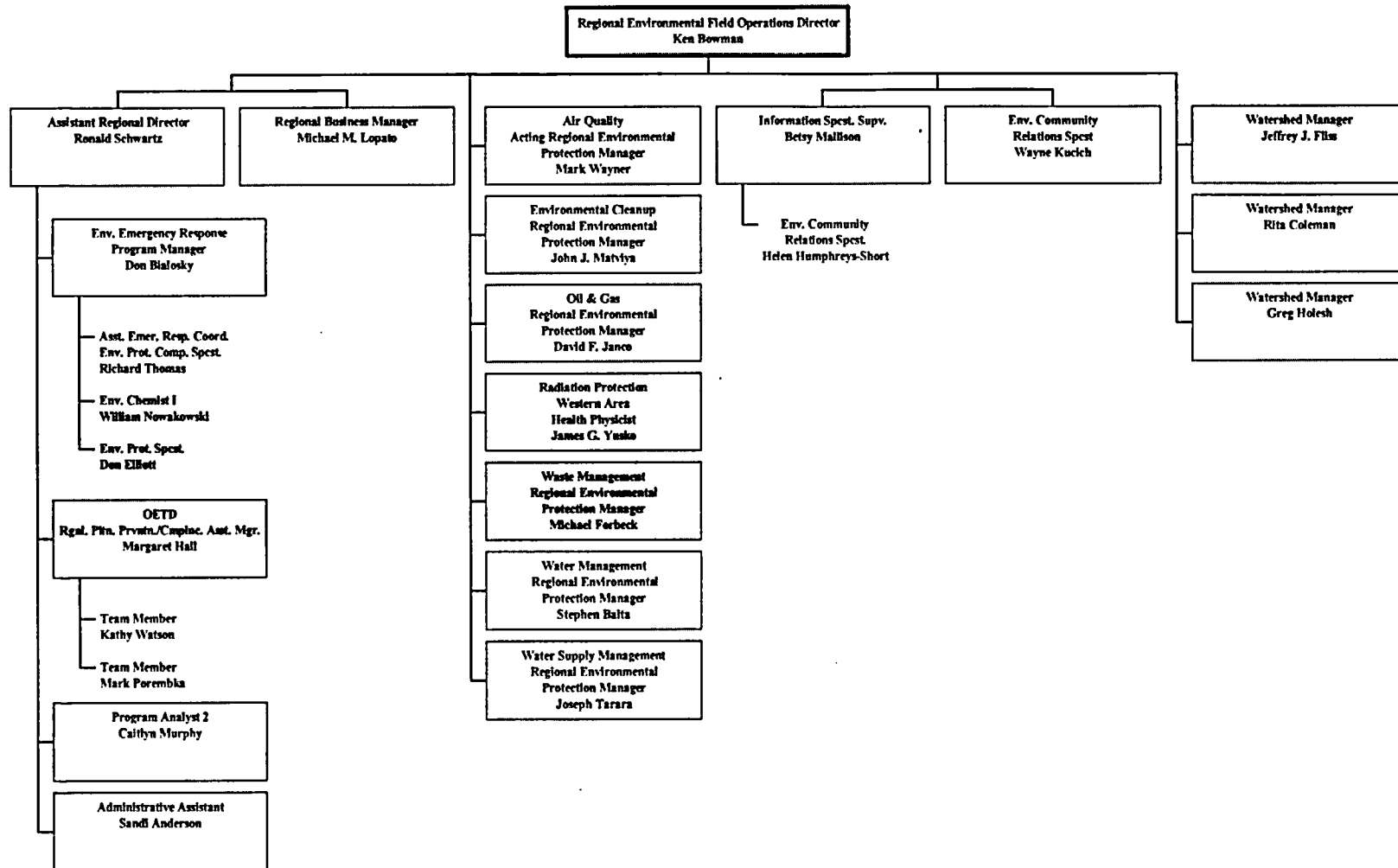
Frank Peffer, RHP2
Sunbury Office

Howard Sher, RHP2

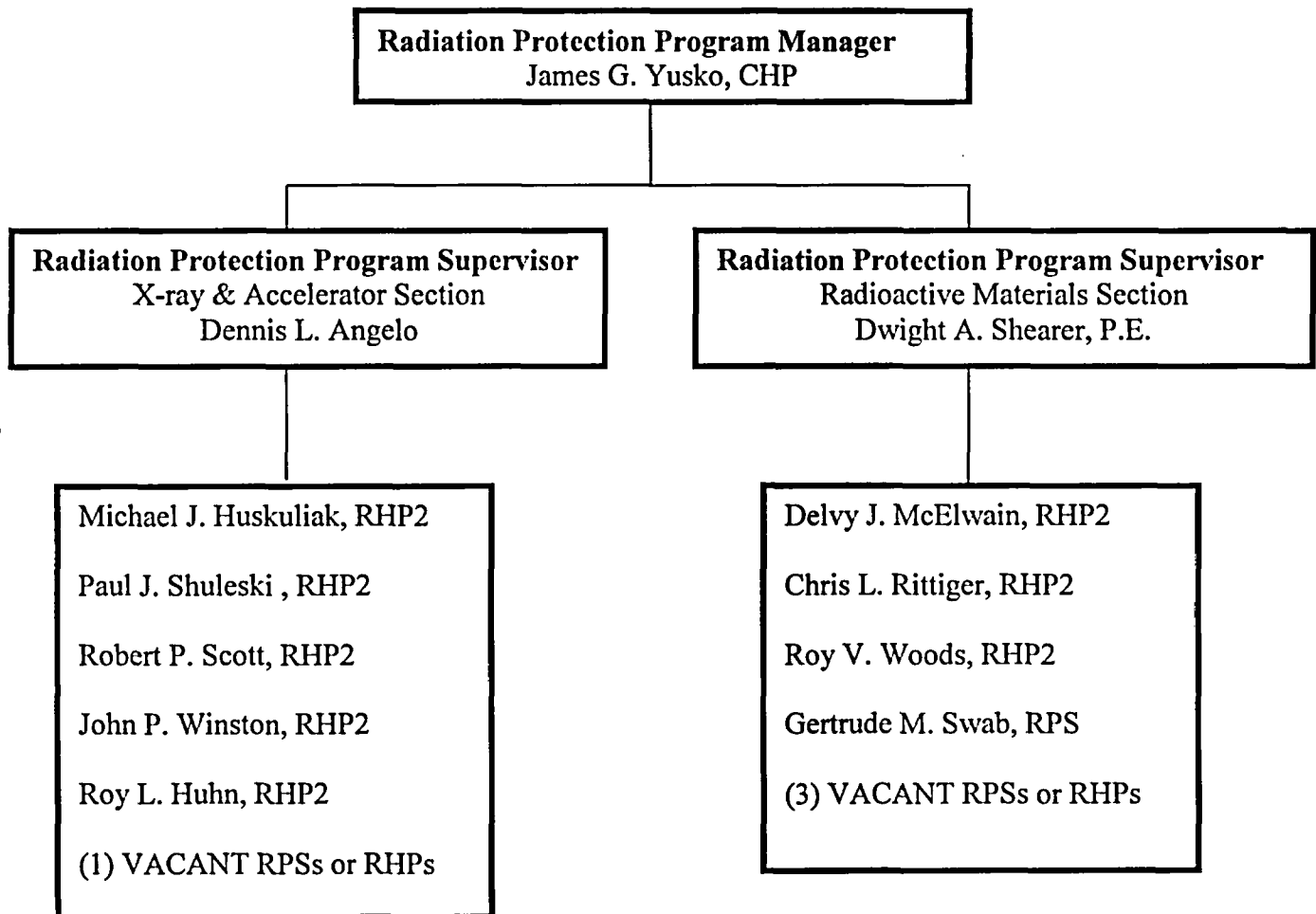
(2) VACANT RPSs or
RHPs

June 2006

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENVIRONMENTAL PROTECTION
SOUTHWEST REGION - FIELD OPERATIONS
ORGANIZATIONAL CHART
04/29/05**



RADIATION PROTECTION SOUTHWEST REGIONAL OFFICE



Month Day, Year

Equipment

Regional Radiation Protection Program Health Physics Survey Equipment
(calibrated annually unless otherwise noted)

| Quantity | Type | Alpha | Beta | Gamma X-ray | Neutron | Notes |
|----------|-----------------------------|-------|------|-------------|---------|---------------------|
| 2 | GM meter w/ Pancake | | x | x | | |
| 1 | GM meter w/ 1"x1" NaI | | | x | | |
| 5 | Low Range (uR) meter | | | x | | |
| 10 | Mid Range (Int. GM) | | | x | | |
| 13 | Ion Chamber | | | x | | 2 Broken - Keithley |
| 2 | Alpha Probe Detectors | x | | | | |
| 16 | Self-Reading Dosimeters | | | x | | Not calibrated |
| 8 | Dosimeter Charger | | | | | |
| 4 | Electronic Dosimeters | | | x | | Not calibrated |
| 0 | Neutron Survey Meters | | | | | |
| 0 | Alarming Ratemeters | | | x | | |
| 3 | Portable Gamma Spectrometer | | | x | | |
| 11 | Scalers | | | | | Micro Rad not cal'd |

Regional Radiation Protection Program Health Physics Survey Equipment
(calibrated annually unless otherwise noted)

| Quantity | Type | Alpha | Beta | Gamma X-ray | Neutron | Notes |
|----------|-----------------------------|-------|------|-------------|---------|-------|
| 6 | GM meter w/ Pancake | | | | | |
| 5 | GM meter w/ 1"x1" NaI | | | | | |
| 10 | Low Range (uR) meter | | | | | |
| 20 | Mid Range (Int. GM) | | | | | |
| 16 | Ion Chamber | | | | | |
| 4 | Alpha Probe Detectors | | | | | |
| 30 | Self-Reading Dosimeters | | | | | |
| 10 | Dosimeter Charger | | | | | |
| 4 | Electronic Dosimeters | | | | | |
| 1 | Neutron Survey Meters | | | | | |
| 4 | Alarming Ratemeters | | | | | |
| 2 | Portable Gamma Spectrometer | | | | | |
| 8 | Scalers | | | | | |

Regional Radiation Protection Program Health Physics Survey Equipment
(calibrated annually unless otherwise noted)

| Quantity | Type | Alpha | Beta | Gamma X-ray | Neutron | Notes |
|----------|-----------------------------|-------|------|-------------|---------|------------------|
| 6 | GM meter w/ Pancake | ? | Y | Y | NA | |
| 5 | GM meter w/ 1"x1" NaI | NA | NA | Y | NA | |
| 4 | Low Range (uR) meter | NA | NA | Y | NA | |
| 10 | Mid Range (Int. GM) | NA | ? | Y | NA | |
| 10 | Ion Chamber | ? | Y | Y | NA | |
| 4 | Alpha Probe Detectors | Y | ? | NA | NA | 2 Not Calibrated |
| 6 | Self-Reading Dosimeters | | | | | Not Calibrated |
| 3 | Dosimeter Charger | | | | | |
| 0 | Electronic Dosimeters | | | | | |
| 1 | Neutron Survey Meters | NA | NA | NA | Y | |
| 0 | Alarming Ratemeters | | | | | |
| 5 | Portable Gamma Spectrometer | NA | NA | Y | | |
| 0 | Scalers | | | | | |

Equipment lists - Emergency Response and Central Office

75 Canberra ADM-300 Rad Instruments
(4 that also have NP-100 probes)
(55 that also have pancake probes)
20 Ludlum 2241-2 Rad Instruments
5 Ludlum 2241-3 Rad Instruments emergency Kits with 44-9, 44-2, and 133-6 detectors
55 MGP DMC-2000 Electronic Dosimeters
12 Radeco H-810 Air Samplers
12 Canberra Inspector 1000 NAI Gamma Spec instruments
4 Berkeley Nucleonics NAI Gamma Spec Instruments
4 ICS-400 Cad-Telluride Gamma Spec
1 Exploranium Gamma Spec
5 Eberline E-120
1 Eberline ESP-2
1 Ludlum Datalogger Model 2350
1 Ludlum Model 15 Neutron meter
6 Ludlum Model 19 Micro- R meters
1 Ludlum Model 77-3 Stretch Scope
8 Thermo Electron E-600 Multipurpose meters, with alpha/beta scintillation detectors 99), and
NAI detectors (6), and Low Energy Gamma Scintillation detectors (3)
1 Thermo Electron FCM-4m, Floor Contamination instrument
3 Thermo HandECount Alpa/Beta Sample Counters
1 Ortec Detective-EX Engine/Battery Cooled HpGe

ATTACHMENT 2: BRP EMERGENCY RESPONSE EQUIPMENT KIT INVENTORY FORM

REGION _____ KIT _____

| Item Description | Qty | Units | Comments | Sat.(Y/N) | Item Description | Qty | Units | Comments | Sat.(Y/N) |
|--------------------------------------|-----|---------|--------------|-----------|---------------------------------|-----|-------|-------------------------|-----------|
| Air sample cartridge, charcoal | 2 | each | | | Lighter plug adapter (4-way) | 1 | each | | |
| Air sample cartridge, silver zeolite | 7 | each | | | Maps (plant specific) | 1 | each | | |
| Air sample filter | 2 | boxes | | | Map Light | 1 | each | | |
| Bags, plastic (2 mils, small) | 20 | each | | | Marker | 1 | each | In portfolio | |
| Bags, plastic (6 mils, large) | 20 | each | | | Neck chain | 3 | each | | |
| Battery, 'AA' | 24 | each | | | Pens, ball point | 1 | each | In portfolio | |
| Battery, 9 volt, alkaline | 4 | each | | | Planchettes (2" diameter) | 7 | each | In portfolio | |
| Battery, 'D' cell, alkaline | 10 | each | | | Poncho style rain gear | 3 | each | | |
| BRP E-Plan | 1 | each | | | Portfolio | 1 | each | | |
| Clipboard | 1 | each | | | Reflective vest | 2 | each | | |
| Decontaminant hand cleaner | 1 | can | | | Revolving warning light (amber) | 1 | each | With bulb & auth.letter | |
| Decontaminant surface cleaner | 1 | can | | | Rubber shoe covers | 3 | pair | | |
| Dust mask | 1 | box | | | Safety goggles | 3 | pair | | |
| Flashlight (headlamp) | 3 | each | | | Sponge | 1 | each | | |
| Glove liners (cotton) | 1 | pack | | | Tablet (8 1/2" X 11") | 1 | each | | |
| Gloves (latex, large) | 1 | box | | | Tape, duct | 1 | roll | | |
| Hard hat (with liner) | 3 | each | | | Tape, masking | 1 | roll | | |
| KI tablets (with instructions) | 3 | bottles | In portfolio | | Tape, radioactive material | 1 | roll | | |
| Knife, Utility | 1 | each | | | Tape, reflective | 1 | roll | | |
| Labels, sample | 20 | each | | | Towels, paper | 1 | Roll | | |

Seal # _____ (applied after inventory completed)

Full Inventory completed by: _____ Date: _____

Quarterly inventory, Seal intact, verified by _____ Date: _____

Quarterly inventory, Seal intact, verified by _____ Date: _____

Quarterly inventory, Seal intact, verified by _____ Date: _____

Pennsylvania Department of Environmental Protection
Bureau of Laboratories-Radiation Measurements Laboratory
2575 Interstate Drive Harrisburg, PA 17110

The Pennsylvania DEP Bureau of Laboratories (BOL) Radiation Measurements Laboratory (RML) is EPA certified for drinking water analysis of radionuclides.

The RML participates in the quality assurance program provided by: Environmental Resource Associates completing the RadChemtm QC RAD-060 Study.

RML Analysis Equipment:

| Quantity | Type | Manuf | Model # | Field | Alpha | Beta | Gamma X-ray | X-Ray | Neutron | Notes | Location |
|----------|------------------------|------------------|----------------|-------|-------|------|-------------|-------|---------|-------|-------------------|
| 1 | Liquid Scintillation | Packard Tri-Carb | 2550CA | | | X | | | | | PA-DEP BOL-RML |
| 3 | Proportional Counter | Gamma Products | 5420 Auto Quad | | X | X | | | | | PA-DEP BOL-RML |
| 1 | Liquid Scintillation | Packard Tri-Carb | 2250CA | | | X | | | | | PA-DEP BOL-RML |
| 1 | Gamma Spectroscopy | Canberra | 9900 | | | | X | | | | PA-DEP BOL-RML |
| 1 | Alpha Spectroscopy | Canberra | 9900 | | X | | | | | | PA-DEP BOL-RML |
| 10 | Intrinsic Ge Detectors | APT | | | | | X | | | | PA-DEP BOL-RML |
| | | | | | | | | | | | |

BOL-RML: Pennsylvania Department of Laboratories – Bureau of Laboratories- Radiation Measurements Laboratory

Staffing:

| Name | Position | Education | Major Subject. |
|----------------|--------------------------|-----------|--------------------|
| Trau Upadhyay | Section chief (Chem III) | M.S | Organic Chemistry. |
| Tom Matukaitis | Chemist II | B.S | Chemistry |
| Chris Robins | Chemist II | B.S | Chemistry |
| Rubeena Quazi | Chemist I | B.S | Chemistry |
| Jim Kucynski | Technician | B.S | Metallurgy |

Radiation Measurements Laboratory Efficiencies

PA Dept. of Environmental Protection

Radiation Measurements Lab.

Gamma Counting System: Two (2) – Canberra Spectroscopy Systems

Ten (10) – Intrinsic Germanium Detectors (5 with each system)

Soil, Flora, Fauna, Sediment

Water, Milk, Precipitation

0.5 L Marinelli

3.5 L Marinelli

Count time: 1000 minutes

Count time: 1000 minutes

| <u>Isotope</u> | <u>Energy (Kev)</u> | <u>% Efficiency</u> | <u>LLD 95%</u> | <u>% Efficiency</u> | <u>LLD 95%</u> |
|----------------|---------------------|---------------------|----------------|---------------------|----------------|
| Mn-54 | 834.84 | 0.93857 | 4 pCi/kg | 0.34375 | 2 pCi/L |
| Fe-59 | 1099.25 | 0.73092 | 10 pCi/kg | 0.25185 | 4 pCi/L |
| Co-58 | 810.76 | 0.96549 | 5 pCi/kg | 0.35395 | 2 pCi/L |
| Co-60 | 1332.49 | 0.616 | 5 pCi/kg | 0.2108 | 3 pCi/L |
| Zn-65 | 1115.55 | 0.72205 | 10 pCi/kg | 0.24765 | 4 pCi/L |
| Zr-95 | 756.72 | 1.03068 | 8 pCi/kg | 0.37883 | 3 pCi/L |
| Nb-95 | 765.79 | 1.01814 | 6 pCi/kg | 0.37407 | 2 pCi/L |
| I-131 | 364.48 | 2.02657 | 12 pCi/kg | 0.72519 | 3 pCi/L |
| Cs-134 | 795.85 | 0.9824 | 5 pCi/kg | 0.36043 | 2 pCi/L |
| Cs-137 | 661.66 | 1.16796 | 4 pCi/kg | 0.4313 | 2 pCi/L |
| Ba-140 | 537.32 | 1.40772 | 26 pCi/kg | 0.51419 | 7 pCi/L |
| La-40 | 1596.18 | 0.52756 | ----- | 0.19261 | 8 pCi/L |
| Be-7 | 477.59 | 1.57141 | 38 pCi/kg | 0.57049 | 13 pCi/L |
| K-40 | 1460.81 | 0.5698 | 52 pCi/kg | 0.29147 | 14 pCi/L |

Filters

Cartridges

Count time: 1000 minutes

Count time: 60 minutes

| <u>Isotope</u> | <u>Energy (Kev)</u> | <u>% Efficiency</u> | <u>LLD 95%</u> | <u>% Efficiency</u> | <u>LLD 95%</u> |
|----------------|---------------------|---------------------|----------------|---------------------|-------------------|
| Mn-54 | 834.84 | 2.3292 | 1 pCi/filter | 2.29563 | 4 pCi/cartridge |
| Fe-59 | 1099.25 | 1.74375 | 3 pCi/filter | 1.70155 | 8 pCi/cartridge |
| Co-58 | 810.76 | 2.44378 | 1 pCi/filter | 2.3885 | 4 pCi/cartridge |
| Co-60 | 1332.49 | 1.45829 | 1 pCi/filter | 1.43682 | 5 pCi/cartridge |
| Zn-65 | 1115.55 | 1.72398 | 3 pCi/filter | 1.67802 | 9 pCi/cartridge |
| Zr-95 | 756.72 | 2.71861 | 3 pCi/filter | 2.61372 | 5 pCi/cartridge |
| Nb-95 | 765.79 | 2.66493 | 2 pCi/filter | 2.56999 | 5 pCi/cartridge |
| I-131 | 364.48 | 5.56635 | 7 pCi/filter | 5.87934 | 4 pCi/cartridge |
| Cs-134 | 795.85 | 2.51488 | 2 pCi/filter | 2.44666 | 4 pCi/cartridge |
| Cs-137 | 661.66 | 3.35161 | 1 pCi/filter | 3.11151 | 4 pCi/cartridge |
| Ba-140 | 537.32 | 3.9719 | 14 pCi/filter | 3.85646 | 10 pCi/cartridge |
| La-40 | 1596.18 | 1.22172 | ----- | 1.20148 | 6 pCi/cartridge |
| Be-7 | 477.59 | 4.40559 | 12 pCi/filter | 4.37147 | 20 pCi/cartridge |
| K-40 | 1460.81 | 1.33405 | 8 pCi/filter | 1.31311 | 120 pCi/cartridge |

Low Background Gas Flow Proportional Counters

Three (3) Gamma Products GP 5420 Auto Quad Gas Flow Proportional Counters

Water Count Time: 500 Minutes

Air Filter Count Time: 100 Minutes

| | <u>% Efficiency</u> | <u>LLD 95%</u> | <u>LLD 95%</u> |
|-------|---------------------|----------------|----------------|
| Alpha | 19.9 | 1 pCi/L | 0.3 pCi/filter |
| Beta | 41.1 | 2 pCi/L | 0.6 pCi/filter |

(Count time 200 minutes)

| | | |
|-------|------|-----------------|
| Y-90 | 51.6 | ---- |
| Sr-89 | 48.0 | 0.6 pCi/L |
| Sr-90 | 31.3 | 0.4 – 0.5 pCi/L |

Liquid Scintillation Counters

One (1) Packard Tri-Carb Model 2250CA

One (1) Packard Tri-Carb Model 2550CA

Water Count Time: 100 Minutes

| | <u>% Efficiency</u> | <u>LLD 95%</u> |
|---------|---------------------|----------------|
| Tritium | 21.0% | 170 pCi/L |

ENVIRONMENTAL SAMPLE KIT INVENTORY

| | | TOOL BOX | | | | | | |
|-----------------------------------|----------|---|-------------|--|--|--|-------------|--|
| Qty. | Unit | | Description | | | | Sat / Unsat | |
| 1 | Each | Clip board | | | | | | |
| 1 | Roll | Duct tape | | | | | | |
| 1 | Each | Duffle bag | | | | | | |
| 1 | Each | Flashlight | | | | | | |
| 2 | Each | Flashlight batteries (Spares) | | | | | | |
| 1 | Each | Folding shovel | | | | | | |
| 1 | Each | Garden trowel | | | | | | |
| 1 | Each | Grass clippers | | | | | | |
| 1 | Each | Hammer | | | | | | |
| 1 | Each | Lined tablet | | | | | | |
| 6 | Each | Metal stakes (12" X 1/4") | | | | | | |
| 1 | Each | Nylon rope | | | | | | |
| 1 | Each | Nylon string | | | | | | |
| 1 | Roll | Paper towels | | | | | | |
| 1 | Each | Portfolio bag | | | | | | |
| 1 | Pair | Scissors (<i>inside portfolio bag</i>) | | | | | | |
| 3 | Each | Sharpie markers (<i>inside portfolio bag</i>) | | | | | | |
| 1 | Pair | Tweezers (<i>inside portfolio bag</i>) | | | | | | |
| 3 | Each | Ball point pens (<i>inside portfolio bag</i>) | | | | | | |
| 3 | Each | Plastic bags (38" X 65") | | | | | | |
| 2 | Packages | Pre moistened towelettes | | | | | | |
| 1 | Roll | Radioactive material tape | | | | | | |
| 2 | Pair | Slip on rubber boots (non skid) | | | | | | |
| 1 | Each | Soil sample cutter (with scoop) | | | | | | |
| 1 | Each | Spoon | | | | | | |
| 1 | Box | Surgeons gloves | | | | | | |
| 1 | Each | Tape measure | | | | | | |
| 1 | Each | Tool kit (computer type) | | | | | | |
| 1 | Package | Ty wraps | | | | | | |
| 2 | Each | Tyvek suits | | | | | | |
| 2 | Pair | Work gloves | | | | | | |
| 1 | Each | Zip lock bag (with smears) | | | | | | |
| | | COOLER | | | | | | |
| Qty. | Unit | | Description | | | | Sat / Unsat | |
| 2 | Each | One pint poly bottles | | | | | | |
| 4 | Each | One gallon cubitainers | | | | | | |
| 1 | Each | Funnel | | | | | | |
| 10 | Each | Plastic bags (4" X 4") | | | | | | |
| 10 | Each | Plastic bags (6" X 6") | | | | | | |
| 10 | Each | Plastic bags (8" X 8") | | | | | | |
| 10 | Each | Plastic bags (14" X 18") | | | | | | |
| 1 | Each | BRP-ER-8.02 Environmental Sampling Procedure | | | | | | |
| 1 | Each | BRP-ER-8.05 Chain of Custody Procedure | | | | | | |
| 20 | Each | BRP-ER-8.05 Chain of Custody Forms | | | | | | |
| 20 | Each | BRP-ER-8.02 Attachments | | | | | | |
| 20 | Each | BRP-ER-8.05 Environmental Sample Labels | | | | | | |
| MISCELLANEOUS | | | | | | | | |
| 2 Gallon Sampling bucket (1 each) | | | | | | | | |

Budget

PA DEP Radiation Protection Program Financial Summary

July 1, 2006 thru June 30, 2007

| REVENUE | DOLLARS | COMMENTS |
|---|-------------|---|
| FY05/06 Esitimated Carry-over Funds to FY06/07 | \$2,950,000 | From FY05/06 |
| Nuclear Power Plant Fees | \$2,000,000 | Act 147 NS/EP fee; \$400,000 per site/yr (9 reactors on 5 sites) |
| Nuclear Power Plant Fees | \$1,250,000 | Act 147 amendment will up fee to \$550K/yr-site; plus, \$0.5M retroactive |
| X-ray Registration and Accelerator Licensing Fees | \$2,900,000 | 11,000 registrants, 250 accelerators and ~75 X-ray Vendors |
| NARM Licensing Fees | \$440,000 | 460 material licenses |
| NRC Licensing Fees | \$0 | ~750 "specific" plus ~200 "general" licenses; expect ~\$2M/yr in FY07/08 |
| General Fund | \$500,000 | Matching funds for Radon Division salaries and benefits |
| Radon Certification Fees | \$94,000 | ~ 600 Rn testers, mitigators and labs |
| Radon EPA Grant | \$365,000 | EPA State Indoor Radon Grant |
| Decommissioning Fees | \$143,000 | EPA Grant for SLC, Army Corps of Engineers, misc. fees and charge-backs |
| DHS Grant | \$200,000 | ODP Grant funds for staff salaries, instrument calibration and EP/ER training |
| FDA MQSA Contract | \$314,000 | Annual FDA mammography inspections of ~390 units, and staff training |
| General Fund | \$75,000 | Funds to support BWM solid waste radiation monitoring program |
| Fines and Penalties | \$50,000 | On NOV's in x-ray, radon, radioactive materials programs |

| MAJOR OBJECTS | EXPENDITURES | COMMENTS |
|------------------------|--------------|---|
| Salaries + Benefits | \$6,550,000 | Technical and admin. Staff |
| Operational Expenses | \$205,000 | Includes services, supplies, rents, leases, travel/training |
| Bur of Labs fees | \$370,000 | Nuclear plant env. surveillance sample radchem analysis |
| Services and contracts | \$225,000 | TLDs, HP instrument cal., internal IT charges |
| Fixed assets | \$95,000 | Vehicle replacement, etc. |
| Radon Outreach | \$303,000 | PSAs, exhibits, newborn program, hot spot surveys, etc. |

Prepared 6/7/06

**Memoranda of
Understanding**

**Memorandums and Letters of Understanding
Bureau of Radiation Protection**

Between: Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection and Exelon Nuclear

Date entered: 10/16/2001

Details: For the deployment of field teams during actual emergencies, or drills and exercises at Limerick Generating Station, Peach Bottom Atomic Power Station, and Three Mile Island Station.

Hard Copy Available: yes (pdf w/ sig)

Between: Pennsylvania Department of Environmental Resources, Bureau of Radiation Protection and Pennsylvania Power and Light Company (PP&L)

Date entered: 8/11/1995

Details: For the deployment of field teams during actual emergencies, or drills and exercises at the Susquehanna Electric Station (SSES).

Hard Copy Available: yes (pdf w/ sig)

Between: Pennsylvania Department of Environmental Resources, Bureau of Radiation Protection and Duquesne Light Company (DLC)

Date entered: 1/14/1994

Details: For the deployment of field teams during actual emergencies, or drills and exercises at Beaver Valley Power Station.

Hard Copy Available: yes (pdf w/ sig)

Between: Pennsylvania Department of Environmental Resources Bureau of Radiation Protection (hereafter PA BRP) and the Ohio Department of Health Radiological Health Program (hereafter ORHP)

Date entered: 9/10/1987

Details: expresses the desire of both parties to cooperate in the exchange of information and in the development of protective action recommendations, in response to accidents at The Beaver Valley Power Station in Pennsylvania and Perry Nuclear Power Plant in Ohio.

Hard Copy Available: yes (pdf w/ sig) (doc w/o sig)

Between: Pennsylvania Bureau of Radiation Protection (PABRP) and West Virginia Department of Health/Industrial Hygiene Division (WVDOH/IHD). This agreement supplements the Memorandum of Understanding between the Pennsylvania Emergency Management Agency (PEMA) and the West Virginia Office of Emergency Services (WVOES).

Date entered: 9/22/1988

Details: The purpose of this agreement is to establish the parameters upon which the Pennsylvania Bureau of Radiation Protection (PABRP) will exchange information and make protective action decisions with the West Virginia Department of Health/Industrial Hygiene Division (WVDOH/IHD).

Hard Copy Available: yes (doc w/o sig)

Between: Pennsylvania Bureau of Radiation Protection (PABRP) and the Maryland Center for Radiological Health (MDE-CRH). This agreement supplements the Memorandum of Understanding between the Pennsylvania Emergency Management Agency (PEMA) and the Maryland Emergency Management and Civil Defense Agency (MEM & CDA).

Date entered: 12/5/1988

Details: This agreement establishes the intentions of the Pennsylvania Bureau of Radiation Protection (PABRP) and the Maryland Center for Radiological Health (MDE-CRH) to exchange information and to notify the other party of recommendations and decisions made during fixed nuclear facility (FNF) incidents to which both agencies are responding.

Hard Copy Available: yes (pdf w/ sig) (doc w/o sig)

Between: Pennsylvania Bureau of Radiation Protection (PABRP) and the New Jersey Bureau of Nuclear Engineering (NJBNE).

Date entered: 12/9/1988

Details: This agreement establishes which emergency response operations conducted by the two Bureaus related to the ingestion EPZ radiological evaluation are best served by a cooperative effort.

Hard Copy Available: yes (pdf w/ sig)

Between: US Department of Energy and PA Department of Environmental Resource

Date entered: 9/5/1980

Details: Remediation of uranium mill tailing from Cannonsburg site.

Hard Copy Available: yes (pdf w/ sig)

Between: U.S. Nuclear Regulatory Commission and The U.S. Army Corps of Engineers for Coordination of Cleanup & Decommissioning of the Formerly Utilized Sites Remedial Action Program (FUSRAP) Sites

Date entered: 7/5/2001

Details: Memorandum of Understanding between the U.S. Army Corps of Engineers (USACE) and the U.S. Nuclear Regulatory Commission (NRC). The purpose of the MOU is to avoid unnecessary duplication of regulatory requirements that may hinder USACE in its remediation of sites under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Under the MOU, NRC could exercise its discretion to suspend NRC-issued licenses, or portions thereof, at FUSRAP sites. The MOU addresses unrestricted releases under 10 CFR 20.1402, and the MOU will ensure that the criteria of the License Termination Rule or a more stringent requirement will be met. The MOU will enhance interagency dialogue and will make the agencies activities and decisions concerning site decommissioning and cleanup more effective and efficient. The MOU will assist the agencies to reduce unnecessary burden on stakeholders and avoid duplication of regulatory requirements and effort by setting out cooperative conditions, consistent with the protection of the public health and safety.

PA DEP gets involved because "USACE shall notify the NRC in writing if there are NRG licensed facilities on FUSRAP sites that may require coordination with the NRC in addition to the four known sites: Maywood Site (Stepan), Maywood, NJ; CE-Windsor Site, Windsor, CT; St. Louis Downtown Site (Mallinkrodt), St. Louis, MO; and the Shallow Land Disposal Area, Parks Township, PA.

Hard Copy Available: yes (pdf w/o sig) also at:

http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2001_register&docid=01-17452-filed

Between: US Department of the Army (Army Corps of Engineers) DEP OARRP

Date entered: 11/13/2002

Details: Reimbursable services related to remediation of Formerly Utilized Sites Remedial Action Program (FUSRAP) sites.

Hard Copy Available: yes (pdf w/ sig)

Between: United States Department of the Army and PA DEP (extension of previous agreement)

Date entered: 10/14/03

Details: Reimbursable services related to remediation of Formerly Utilized Sites Remedial Action Program (FUSRAP) sites. Extension until 12/31/2004.

Hard Copy Available: yes (pdf w/ sig)

Between: US Department of the Army (Army Corps of Engineers) DEP OARRP (extended)

Date entered: 12/8/2004 (extension of 10/27/2003 agreement)

Details: Reimbursable services related to remediation of Formerly Utilized Sites Remedial Action Program (FUSRAP) sites. Extension until 12/31/2005.

Hard Copy Available: yes (pdf w/ sig)

Between: US Department of the Army (Army Corps of Engineers) DEP OARRP (extended)

Date entered: 01/09/2006 (extension of 10/27/2003 agreement)

Details: Reimbursable services related to remediation of Formerly Utilized Sites Remedial Action Program (FUSRAP) sites. Extension until 12/31/2006.

Hard Copy Available: yes (pdf w/ sig)

Between: U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards, and the U.S. Department of Energy, Office of Waste Management (by letter from PA DEP BRP to NRC, summarizing May 21, 1999, teleconference)

Date entered: 6/18/1999

Details: Coordination of Decommissioning Activities with the Nuclear Regulatory Commission

Hard Copy Available: yes (pdf w/o sig)

Between: Conference of Radiation Control Program Directors, Inc. (CRCPD) and PA DEP

Date entered: 12/29/2003

Details: The overall purpose of this agreement is to financially assist, through the cooperation of state radiation control programs, persons that do not have sufficient funding or who should not be held liable to fund the safe disposition of orphan radioactive material.

Hard Copy Available: yes (pdf w/ sig) (online at <http://www.crcpd.org/orphans.asp>)

Between: Conference of Radiation Control Program Directors, Inc. (CRCPD) and PA DEP

Date entered: 01/03/2006

Details: The overall purpose of this agreement is to financially assist, through the cooperation of state radiation control programs, persons that do not have sufficient funding or who should not be held liable to fund the safe disposition of orphan radioactive material.

Hard Copy Available: yes (pdf w/ sig)

Between: U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Pennsylvania Department of Environmental Protection (PADEP)

Date entered: July 15, 1996

Details: The MOU provides the basis for cooperation between the agencies to facilitate the safe and timely remediation and decommissioning of Site Decommissioning Management Plan Sites (SDMP)

and other decommissioning sites in Pennsylvania at which both agencies exercise regulatory authority.

The broad MOU expresses the desire of PADEP and the NRC to cooperate in areas subject to the jurisdiction of both parties. Under the MOU, PADEP and NRC will designate site coordinators for each SDMP site in Pennsylvania. Each agency will provide the other with reasonable notice of inspections, and meetings with other agencies or the public which concern a particular SDMP site. The MOU also provides the basis for the dissemination of information between the agencies and the review and comment of draft documents.

Hard Copy Available: yes [\(pdf w/o sig\)](#) also in:

[Federal Register: September 5, 1996 (Volume 61, Number 173)] [Page 4683246834]

Between: U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Pennsylvania

Date entered: 11/19/1986

Details: Provides the basis for detailed subagreements in areas such as transportation regulation at a low-level disposal site, low-level packaging and shipping inspections, confirmatory environmental monitoring and emergency information exchange.

Hard Copy Available: yes [\(pdf w/o sig\)](#)

Between: Commonwealth of Pennsylvania (hereafter "Commonwealth") and the U.S. Nuclear Regulatory Commission (hereafter "NRC")

Date entered: 11/04/1986

Details: The Commonwealth and NRC agree to consult regularly and to cooperate in exploring and devising appropriate procedures to minimize duplication of effort to the extent permitted by Commonwealth and Federal law, to avoid delays indecision making, and to ensure the exchange of information that is needed to make the most effective use of the resources of the Commonwealth and the NRC in order to accomplish the purpose of both parties.

Hard Copy Available: yes [\(pdf w/o sig\)](#)

This is also part of BRP Compliance and Enforcement Technical Guidance.

Between: Commonwealth of Pennsylvania and the United States Nuclear Regulatory Commission

Date entered: 09/11/1987

Details: Subagreement to 11/04/1986 agreement, The Commonwealth of Pennsylvania, in fulfilling its obligations under the Low-Level Radioactive Waste Policy Amendments Act of 1985 contemplates that it will make periodic inspections of the areas of lowlevel radioactive waste packages and transport activities of generators located within its borders if shipments of such waste are destined for disposal at a low-level radioactive waste disposal facility.

Hard Copy Available: yes [\(pdf w/o sig\)](#)

This is also part of BRP Compliance and Enforcement Technical Guidance.

Between: PA Department of Health and PA Department of Environmental Resources

Date entered: 10/01/1993 (cancelled 02/24/1995)

Details: (ME-93187) DER reimbursement from DOH for Mammography Quality Assurance Act inspections.

Hard Copy Available: yes [\(pdf w/ sig\)](#) [\(Dissolution pdf w/ sig\)](#)

Between:

Date entered:

Details:

Hard Copy Available:

Currently in signature process

Between:

Date entered:

Details:

**MEMORANDUM OF UNDERSTANDING BETWEEN THE DEPARTMENT OF
HEALTH AND THE DEPARTMENT OF ENVIRONMENTAL RESOURCES
MAMMOGRAPHY LICENSURE SURVEYS**

This memorandum is made the first day of October 1993 by and between the Department of Environmental Resources (DER) and the Department of Health (DOH).

WHEREAS, the General Assembly of Pennsylvania has enacted and the Governor has signed into law, the Mammography Quality Assurance Act, Act 1992-93, 35 P.S. § 5651 et seq. (The Act); and

WHEREAS, Act 1992-93 establishes licensure standards for screening mammography services overall quality control program, for obtaining and preserving records, for the radiation technologist and interpreting physician and for the radiation machine itself; and

WHEREAS, Section 3 (b) (1) of Act 1992-93, 35 P.S. § 5653 (b) (1), mandates that a screening mammography facility's radiation machine must meet quality standards for the provision of screening mammography services as authorized by Section 4163 of P.L. 101-508, the Omnibus Budget Reconciliation Act of 1990; and

WHEREAS, the statute requires the Department of Health to issue a license upon determining that the applicant has met the licensure standards/criteria through an annual inspection of a screening mammography facility and its radiation machine/mammography system; and

WHEREAS, the Department of Health maintains a program staff with expertise in the required survey process for overall quality assurance and standards of care for screening mammography service patients, but does not maintain a staff with technical expertise in the survey and inspection of mammography systems (the radiation machine, automatic exposure control devices, films, screens and cassettes, image processors, dark room and view boxes); and

WHEREAS, Section 301 of the Radiation Protection Act of 1984 (35 P.S. § 7110.301) empowers the Department of Environmental Resources to develop and conduct comprehensive programs for the regulation and inspection of radiation sources and radiation source users; and

WHEREAS, Act 1992-93, 35 P.S. § 5653 (b) (1), provides that the Department of Health may contract with the Department of Environmental Resources to determine whether a screening mammography facility's mammography system meets the required standards/criteria; and

WHEREAS, the Department of Health is desirous of entering into a contract with the Department of Environmental Resources for the purpose of inspecting the technical aspects of mammography systems and furnishing the results of such inspections to the Department of Health; and

DER OCC

LOG #: 423

WHEREAS, Sections 501 (71 P.S. § 181) and 502 (71 P.S. § 182) of the Administrative Code of 1929 require coordination among Commonwealth departments and agencies;

NOW, THEREFORE, the parties to this memorandum set forth the following as the terms and conditions of their understanding:

I. Responsibilities of the Department of Health

1. The DOH shall accept mammography system survey data as provided by DER surveys of mammography screening facilities in lieu of conducting its own surveys of mammography systems.
2. The DOH shall reimburse the DER for inspections conducted to check compliance with the technical aspects of mammography systems in accordance with Section III of this memorandum.
3. By the 15th day of the month, DOH will provide DER a schedule for the survey and inspection of up to 12 screening mammography facilities for the following month. To the extent possible such facilities will be evenly distributed geographically throughout Pennsylvania. Such schedule will be subject to change in the case of those "initial" and "complaint" surveys considered to take priority by the Health Care Financing Administration (HCFA)/DOH.
4. The DOH will maintain an ongoing liaison with the DER, regarding survey scheduling as well as survey training, regulation updates, and policies and procedures in part through the Department of Health and Human Services' (DHHS) HCFA State Operations Manual, interpretive guidelines, and other relevant HCFA transmittals. DOH is responsible to furnish such information to DER in a timely manner.
5. In all instances in which a mammography screening facility is found by DER to be out of compliance with the criteria established by Act 1992-93, the DOH will make the final determination that the facility is or is not in full compliance with the requirements of the Act.

II. Responsibilities of the Department of Environmental Resources

1. DER shall utilize survey procedures as published in the DHHS's, HCFA State Operations Manual for checking compliance with criteria established by regulations promulgated under Section 4163 of the Omnibus Budget Reconciliation Act of 1990, 42 C.F.R. Part 494, Subpart B, Sections 494.60, 494.62 and 494.64 (Act 1992-93 criteria).
2. DER shall use only qualified radiation health physicists or radiation protection specialists to inspect mammography systems. Inspectors shall have been trained (1) by HCFA/Food and Drug Administration (FDA) personnel at the July 1992 training session in Baltimore, MD, or any such subsequent training session, or (2) by DER personnel who have attended the July 1992 HCFA/FDA training session in Baltimore, MD, or any such subsequent training session, or who have demonstrated competence by having performed a minimum of 25 mammography system inspections to the satisfaction of the DOH.
3. DER shall provide personnel as per Section II, Item 2, of this memorandum, as required in order to accomplish up to a maximum of 375 initial and complaint screening mammography surveys and an estimated 25 follow-up surveys for licensure by DOH during the period of this memorandum.
4. Using the schedule from DOH, as per Section I, Item 3 of this memorandum, DER shall schedule the same screening mammography facilities for inspection by DER during the month immediately following the month in which DOH conducts its surveys.
5. When a screening mammography facility is found by DER to be in full compliance with Act 1992-93 criteria, DER shall furnish DOH with written documentation acceptable to DOH as soon as possible but no later than five (5) working days following DER's conduct of an inspection.
6. When a screening mammography facility is found by DER to be out of compliance with Act 1992-93 criteria/standards, DER shall verbally report such deficiencies immediately to the facility. Additionally, utilizing a survey form as developed by DER,

and satisfactory to DOH, DER shall notify the facility in writing in accordance with DOH procedures within five working days of the inspection that the facility has ten days from the date of the notification letter in which to provide DER with a Plan of Correction (POC). In the case of serious violations of Act 1992-93, DER shall first notify DOH verbally so that DOH and DER can coordinate facility notification in accordance with DOH procedures. Within five working days of the inspection, DER shall furnish DOH with a copy of the survey form, as well as a copy of the notification letter issued to the facility. If a POC is not received by DER from a facility within 10 days, DER shall notify DOH accordingly.

7. Upon receipt of a POC from a screening mammography facility, DER shall determine the acceptability of the corrective action and notify DOH within five days of receipt of the POC. If the serious violations involve dose and/or image quality, DER shall conduct a follow-up inspection to verify compliance. If the POC is found to be acceptable, DER shall notify DOH and provide written documentation accordingly; if the POC is unacceptable, DER shall notify the screening mammography facility, provide written documentation to DOH and request a second POC in the same manner as in Section II 6 of this memorandum.
8. Upon notification by the DOH of a specific complaint regarding a mammography system or the operation of same, DER shall conduct a complaint investigation, or, if the complaint is general in nature, DER shall conduct a regular inspection. Unless DOH requires otherwise because of the seriousness of the complaint, the investigation or inspection shall be integrated into the schedule for that month or early in the following month and the results shall be reported in accordance with Section II 5, 6, and 7 of this memorandum.
9. Should any provider of screening mammography services file an appeal from a determination involving an inspection by DER under this memorandum, DER shall cooperate with DOH and provide available testimony and records in regard to such appeal.

10. DER shall provide technical assistance as appropriate to new providers on licensure prerequisites pertaining to mammography systems.
11. The DER shall alert the Deputy Secretary for Quality Assurance and Health Planning, DOH, in writing, as soon as DER becomes aware of any major problems which may impact upon the continuation of this memorandum.

III. The Department of Environmental Resources and the Department of Health concur in the following:

1. The DOH shall reimburse DER for its expenses incurred as a result of survey activities which currently is established via estimated average cost at \$259 per initial or complaint survey.
2. During the period of this memorandum, DER shall conduct up to 375 initial or complaint surveys at a maximum cost of \$97,125 (Appendix A). Attached hereto and incorporated as Appendix B is an estimated workload and average cost estimate per survey which reflects how the parties determined the reimbursement amounts of \$259 for the surveys appearing in item 1 of this Section.
3. In regard to each state fiscal year of this memorandum, DER with regard to expenditures for mammography screening facilities, shall submit invoices quarterly for actual expenditures, for the first three fiscal year quarters. Each invoice shall have attached a listing of the name, address, identifier and location of each radiographic mammography machine inspected. DER shall submit and DOH will accept and pay an estimated fourth quarter (April-June) invoice which will be adjusted to actual expenditures during the first quarter of the subsequent year. Actual costs will be determined in accordance with DER documentation following completion of the last quarter. DER shall include a proper revenue account code on all invoices.

IV. General Provisions

1. Subject to the availability of state funds, the terms of this Memorandum shall commence on October 1, 1993 and terminate on September 30, 1996.
2. This Memorandum may be amended at any time upon the mutual written agreement of both parties.
3. This Memorandum may be terminated by either party upon one hundred twenty (120) days advance written notice to the other party.
4. This Memorandum may not be assigned in whole or in part without the prior written approval of the Secretary of Health.
5. Any dispute arising hereunder shall be submitted to the Office of the General Counsel for final resolution.
6. This Memorandum is not intended to and does not create any contractual rights or obligations with respect to the signatory agencies or any other parties.

The parties hereby acknowledge the foregoing as the terms and conditions of their understanding.

Department of Health:

Chas M. Hartung 1/25/94
Secretary Date

by: L. J. Thompson 1/11/94
Chief Counsel Date.

Michael Shary 6-14-91
Comptroller Date

Department of Environmental
Resources:

Secretary _____ Date _____

Lee Weeks NLS 2/1/74
Chief Counsel Date

3/17/94
Comptroller Date

Office of General Counsel:

Joseph R. Thomas 3/7/94
Deputy General Counsel Date

APPENDIX A

MAMMOGRAPHY MEMORANDUM OF UNDERSTANDING FOR STATE LICENSURE

The Department of Health will bill the licensed facility as follows:

| | Annual Surveys |
|-----------------------------------|-------------------|
| Application Fee | \$ 50 |
| 3 yr cost of DOH survey | \$ 600 |
| 3 yr cost of DER survey | <u>\$ 777</u> |
| Total cost of license for 3 years | \$1,427 |
| Estimated no. of facilities | <u>x125</u> |
| Total projected revenue | \$178,375 |

The Department of Health will transfer funds for completed surveys to the Department of Environmental Resources up to a maximum of \$97,125 quarterly on a state fiscal year basis.

The remaining estimated \$81,250 will augment Appropriation 129. The facilities will be billed for the application and the three year period during the first year of licensure.

APPENDIX B

MAMMOGRAPHY STATE LICENSURE SYSTEMS BUDGET

Estimated workload and Average Cost Per Survey

Estimated number of facilities to be surveyed for "initial" and "complaint" purposes is 125 each state fiscal year.

Single Survey Average Annual Cost Estimate
Initial and Complaint Facility Survey

| <u>Activity</u> | <u>Hours</u> | <u>Cost</u> | <u>Totals</u> |
|-----------------------------|------------------|------------------|---------------|
| Pre-inspection | 1.0 | | |
| Travel to Facility | 2.0 | | |
| Inspection | 2.0 | | |
| Travel from Facility | 2.0 | | |
| Post Inspection | <u>2.0</u> | | |
| Salary | 9.0 | x \$26.69/hour = | \$240.21 |
| Mileage Average | | | 13.65 |
| Subsistence Average | | | 2.20 |
| Lodging Average | | | <u>2.50</u> |
| Approximate Cost Per Survey | | | \$258.56 |
| Total Cost Per Survey | \$259.00 x 125 = | \$32,375.00 | |
| | | x <u>3</u> years | |
| TOTAL | | \$97,125.00 | |

MEMORANDUM OF UNDERSTANDING ROUTING SLIP

This routing slip is to be used to document the routing of Memorandums of Understanding. It is to be included with the original of the fully executed MOU and becomes a permanent part of the MOU file. Any questions regarding the routing of this contract should be addressed to: DER BUREAU OF OFFICE SYSTEMS & SERVICES, DIVISION OF MATERIALS MANAGEMENT, PURCHASING SECTION, CONTRACTING UNIT AT 787-2471.

MOU NAME: PA Dept. of Health, Bureau of Quality Assurance

PREPARER'S NAME, TELEPHONE NO. & ORGANIZATION:

ME # 93187

Deb Capasso
DER Purchasing
783-5885

| | DATE IN | DATE OUT | INITIAL | COMMENTS |
|---|---------|----------|----------------|-----------------------------|
| ORIGINATING OFFICE - Completed MOU | | | | |
| DER, BUREAU OF FISCAL MANAGEMENT - 15th FL MSSOB | 2/4/94 | 2/4/94 | Deb Capasso | Budget Analyst |
| DER, PURCHASING SECTION - CONTRACTING UNIT - 2nd FL MSSOB | | 2/8/94 | Deb Capasso | <input type="checkbox"/> ME |
| DER, BUREAU OF LEGAL SERVICES - 9th FL MSSOB | | | | William Calder |
| DEPT. OF <u>Health</u> , CHIEF COUNSEL | | 1/10/94 | | |
| DEPT. OF <u>Health</u> AGENCY HEAD/DEPUTY | | 1/25/94 | | |
| DER, PURCHASING SECTION - CONTRACTING UNIT - 2nd FL MSSOB | | | | |
| DER AGENCY HEAD/DEPUTY | | 3/2/94 | | Deputy Secretary |
| DER, PURCHASING SECTION - CONTRACTING UNIT - 2nd FL MSSOB | | | | |
| DER, BUREAU OF LEGAL SERVICES - 9th FL MSSOB | | | | William Calder |
| OFFICE OF GENERAL COUNSEL | 3.4.94 | 3/4/94 | 3/7/94 | |
| DER, PURCHASING SECTION - CONTRACTING UNIT - 2nd FL MSSOB | | 3/8/94 | Deb Capasso | |
| DER, COMPTROLLER - Pitnick Bldg. | | 3/9 | Deb Chernicoff | |
| DEPT. OF <u>Health</u> , COMPTROLLER | | | | |
| DER, PURCHASING SECTION - CONTRACTING UNIT - Executed Contract Log - 2nd FL MSSOB | | | | Deb Capasso |
| ORIGINATING OFFICE | | | | |

BRIEF DESCRIPTION OF PROJECT:

Acc. No.: 001-035-674-x-6 2910-29624. *Goldberg*
Rev. Code: 001780-035674-101 Account Code (BFM)

\$ _____
Amount

Radiation Protection
Appropriation Title

Den HCD.

AGENCY

PA Dept. of Health
Bureau of Quality Assurance
907 Health & Welfare Bldg.
Harrisburg, PA 17120

| | | |
|-----|--------|-------|
| ICB | ME NO. | |
| 310 | ME | 93187 |
| 320 | | |

DATE PREPARED

11/5/93

PERIOD COVERED
BEGINNING DATE
10 / 1 / 93

9 30 96

APPROVED (COMPTROLLER)

Wade Stoughness

IDENTIFY LEASE, CONTRACT OR OTHER ENCUMBRANCE DOCUMENT CONCERNED.

ME

M APPROVED
DISAPPROVED
JUN 16 1994

Division of Contracts:

TOTAL[illegible]

RECORD OF LIQUIDATIONS


| | | ORG | COST FUNCTION | ORG | COST FUNCTION | ORG | COST FUNCTION | ORG | COST FUNCTION | ORG | COST FUNCTION |
|---------------------------------------|------------------|-----|---------------|-----|---------------|-----|---------------|-----|---------------|-----|---------------|
| ACCOUNT CODES → | | | | | | | | | | | |
| | | OBJ | | OBJ | | OBJ | | OBJ | | OBJ | |
| AMOUNT OF MISCELLANEOUS ENCUMBRANCE ↗ | | | | | | | | | | | |
| DATE ↓ | VOUCHER NO. ↓ | | | | | | | | | | |
| | | | | | | | | | | | |
| X | BALANCE | | | | | | | | | | |
| X | BALANCE | | | | | | | | | | |

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Resources
October 6, 1994
(717) 787-3720

SUBJECT: Mammography Quality Assurance

TO: John Hair, Director
Bureau of Community Program Standards
Department of Health

FROM: Donald J. McDonald, Chief
Division of Radiation Control
Bureau of Radiation Protection
Department of Environmental Resources



The Mammography Quality Assurance Act, Act 93 of 1992, was enacted to ensure that all providers of screening mammography services, including those not certified by DHHS/FDA/HCFA under the federal medicare program, meet the quality standards in Section 4163 of the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508, 104 Stat. 1388). Subsequent to Act 93 of 1992, the federal Mammography Quality Standards Act (MQSA) was passed.

MQSA requires that providers of screening and diagnostic mammography services be 1) accredited by an FDA - approved accrediting body, 2) certified by FDA and 3) inspected annually by FDA (or an FDA - certified state inspector) for compliance with MQSA quality standards (which are at least as stringent as those of P.L. 101-508, Section 4163). The Bureau of Radiation Protection has contracted with DHHS/FDA/CDRH to conduct the annual certification inspections under MQSA.

It is our opinion, that with the enactment of MQSA, there is no longer a need for Act 93 of 1992.

COMMONWEALTH OF PENNSYLVANIA

Department of Health
717-787-8015

DATE: February 24, 1995

SUBJECT: MOU Regarding Mammography Licensure Surveys

TO: William P. Dornsife, Director
Bureau of Radiation Protection
Department of Environmental Resources

FROM: *Teresa M. Nichols*
Teresa M. Nichols
Budget Analyst
Bureau of Quality Assurance

This memo is to notify you that, effective immediately, we are cancelling the Memorandum of Understanding (MOU) between the Department of Health and Department of Environmental Resources (ME-93187) regarding the mammography licensure surveys.

If you have any questions please contact me at 7-8015.

TMN:KAB:kab
cc: S. Reed
T. Stoneroad
J. Hair
D. McDonald ✓
D. Capasso
R. Lutz

Commonwealth of Pennsylvania

November 3, 1994

SUBJECT: ME 92108

TO: Mr. Samuel R. Reed
Division Chief
Contract Management Division
Comptroller for the Dept. of Health

FROM: *Teresa M. Nichols*
Teresa M. Nichols
Budget Analyst
Bureau of Quality Assurance

Enclosed is the final invoice to be processed against ME-92108. This ME encumbers funds for the MOU between the Bureau of Quality Assurance in the Dept. of Health and the Bureau of Radiation Protection in the Dept. of Environmental Resources. Please liquidate the remaining balance on this document.

If you have any questions, call me at 7-8015.

/tmn

Enclosure

cc: D. McDonald ✓
C. Hartung
C. Diodato
B. Bastian
T. Nichols
D. Capasso
R. Lutz

DEPARTMENT OF ENVIRONMENTAL RESOURCESBUREAU OF RADIATION PROTECTIONMAMMOGRAPHY CERTIFICATION SURVEYSJULY 1, 1994 THROUGH SEPTEMBER 30, 1994MOU 1992-17 INVOICE NO. 8

ME - 92108

VID # 232632825

"FINAL INVOICE"

The Department of Environmental Resources requests reimbursement from the Department of Health for expenditures incurred in performing mammography certification surveys at the facilities listed on the attachment to this invoice. Expenses were determined in accordance with MOU 1992-17, Section III, Item 1.

| <u>TYPE</u> <u>SURVEY</u> | <u>NO. OF</u> <u>SURVEYS</u> | <u>UNIT</u> <u>COST</u> | <u>NET</u> <u>COST</u> |
|---------------------------------|---------------------------------|----------------------------|---------------------------|
| Initial and Re-certification | 15 | \$259.00 | \$3,885.00 |
| Follow-up | 0 | \$165.00 | \$0.00 |
| TOTAL COST | | | \$3,885.00 |
| REVENUE CODE | | | 001780-035674-101 |
| ACCOUNT CODE | | | 001-035-674-6-2910-29624 |

Donald McDonald
Chief, Division of Radiation Control
Bureau of Radiation Protection

10/27/94
Date

001-007-763-93-7-8421-42743-825

Beverly M. Nichols
APPROVED FOR PAYMENT

The request for a hearing must be filed with the Office of the Secretary either:

1. By delivery to the Rulemakings and Adjudications Staff of the Office of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville MD 20852-2738; or

2. By mail, telegram or facsimile addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Attention: Rulemakings and Adjudications Staff.

In addition to meeting other applicable requirements of 10 CFR Part 2 of the NRC's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

1. The interest of the requestor in the proceeding;

2. How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in § 2.1205(h);

3. The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and

4. The circumstances establishing that the request for a hearing is timely in accordance with § 2.1205(d)—that is, filed within 30 days of the date of this notice.

In accordance with 10 CFR 2.1205(f), each request for a hearing must also be served, by delivering it personally or by mail, to:

1. The applicant, Kerr-McGee Corporation, Kerr-McGee Technical Center, 123 Robert S. Kerr Avenue, Oklahoma City, OK 73125; and

2. The NRC staff, by delivery to the General Counsel, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or by mail addressed to the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

Dated at Arlington, Texas, this 3rd day of July, 2001.

For the Nuclear Regulatory Commission.

D. Blair Spitzberg,

Chief, Fuel Cycle and Decommissioning Branch, Division of Nuclear Materials Safety, Region IV.

[FR Doc. 01-17451 Filed 7-11-01; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-361 AND 50-362]

Southern California Edison Company, San Onofre Nuclear Generating Station, Unit Nos. 2 and 3; Notice of Issuance of Amendment to Facility Operating License

The U.S. Nuclear Regulatory Commission (Commission) has issued Amendment Nos. 180 and 171 to Facility Operating Licenses Nos. NPF-10 and NPF-15, Southern California Edison Company (SCE or the licensee), which revised the Operating License and Technical Specifications for operation of the San Onofre Nuclear Generating Station (SONGS), Units Nos. 2 and 3, located in San Diego County, California. The amendments are effective as of the date of issuance.

The amendments modified the Technical Specifications and Operating License for SONGS Units 2 and 3, to allow SCE to increase the maximum reactor core power level for each unit from 3390 megawatts thermal (MWt) to 3438 MWt, which is an increase of 1.42 percent of rated core thermal power for SONGS Units 2 and 3.

The proposed action is in accordance with the licensee's application for amendment dated April 3, 2001, and supplemented by letters dated April 23, May 11, May 25, May 31, and June 25, 2001.

The application for the amendments comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR chapter I, which are set forth in the license amendments.

Notice of Consideration of Issuance of Amendment to Facility Operating License and Opportunity for a Hearing in connection with this action was published in the Federal Register on April 18, 2001 (66 FR 19996). No request for a hearing or petition for leave to intervene was filed following this notice.

The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement. Based upon the environmental assessment, the Commission has concluded that the issuance of the amendments will not have a significant effect on the quality of the human environment (66 FR 32964, and corrected in 66 FR 33982).

For further details with respect to the action see (1) the application for amendment dated April 3, 2001, (and supplemented by letters dated April 23, May 11, May 25, May 31, and June 25, 2001), (2) Amendments No. 180 to License No. NPF-10, and No. 171 to License No. NPF-15, (3) the Commission's related Safety Evaluation, and (4) the Commission's Environmental Assessment. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/NRC/ADAMS/index.html>. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room Reference staff at 1-800-397-4209, 301-415-4737 or by email to pdr@nrc.gov.

Dated at Rockville, Maryland, this 6th day of July 2001.

For the Nuclear Regulatory Commission.

Joseph E. Donoghue,

Senior Project Manager, Project Directorate IV, Section 2, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 01-17449 Filed 7-11-01; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Memorandum of Understanding Between the U.S. Nuclear Regulatory Commission and The U.S. Army Corps of Engineers for Coordination of Cleanup & Decommissioning of the Formerly Utilized Sites Remedial Action Program (FUSRAP) Sites With NRC-Licensed Facilities

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice.

SUMMARY: This notice is to advise the Public of the issuance of a Memorandum of Understanding between the U.S. Army Corps of Engineers (USACE) and the U.S. Nuclear Regulatory Commission (NRC). The purpose of the MOU is to avoid unnecessary duplication of regulatory requirements that may hinder USACE in its remediation of sites under the Comprehensive Environmental Response, Compensation, and Liability

Act (CERCLA). Under the MOU, NRC could exercise its discretion to suspend NRC-issued licenses, or portions thereof, at FUSRAP sites. The MOU addresses unrestricted releases under 10 CFR 20.1402, and the MOU will ensure that the criteria of the License Termination Rule or a more stringent requirement will be met. The MOU will enhance interagency dialogue and will make the agencies activities and decisions concerning site decommissioning and cleanup more effective and efficient. The MOU will assist the agencies to reduce unnecessary burden on stakeholders and avoid duplication of regulatory requirements and effort by setting out cooperative conditions, consistent with the protection of the public health and safety.

EFFECTIVE DATE: July 5, 2001.

ADDRESSES: Copies of all NRC documents are available for public inspection, and copying for a fee, in the NRC Public Document Room, 11455 Rockville Pike (Mail Stop: 01F13), Rockville, MD. The NRC Public Document Room is open from 7:45 a.m. to 4:15 p.m., Monday through Friday (except Federal holidays). Telephone service is provided from 8:30 a.m. to 4:15 p.m., at (301) 415-4737 or toll-free at 1-800-397-4209 or e-mail: pdr@nrc.gov.

FOR FURTHER INFORMATION CONTACT: Amir Kouhestani, NMSS Mail Stop T7-F27, U.S. Nuclear Regulatory Commission, Washington, DC 20005-0001. Telephone: (301) 415-0023; Fax (301) 415-5398; e-mail: aak@nrc.gov.

Dated at Rockville, Maryland, this 5th Day of July, 2001.

For the Nuclear Regulatory Commission.

Larry W. Camper,
Chief, Decommissioning Branch, Division of
Waste Management, Office of Nuclear
Material Safety and Safeguards.

**Memorandum of Understanding
Between the U.S. Nuclear Regulatory
Commission and the U.S. Army Corps
of Engineers for Coordination on
Cleanup & Decommissioning of the
Formerly Utilized Sites Remedial
Action Program (FUSRAP) Sites With
NRC-Licensed Facilities**

Article I—Purpose and Authority

A. This Memorandum of Understanding (MOU) is entered into by and between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Army Corps of Engineers (USACE), ("The Parties") for the purpose of minimizing dual regulation and duplication of regulatory requirements at FUSRAP sites with NRC-licensed

facilities. For activities where a potential for dual regulation could exist, the two agencies agree to cooperate, share information, and/or coordinate activities in their respective programs. This MOU applies to USACE response actions meeting the decommissioning requirements of 10 CFR 20.1402, "Radiological Criteria for Unrestricted Use." USACE Response actions meeting the restricted release requirements of 10 CFR 20.1403, are outside the scope of this MOU.

B. The NRC has the statutory responsibility for the protection of the public health and safety related to the possession and use of source, byproduct, and special nuclear material under the Atomic Energy Act of 1954, as amended (Public Law 83-703, 68 Stat. 919). This includes ensuring the decommissioning of the nuclear facilities that it licenses. The Commission's licenses and regulations set out conditions to provide for the protection of the public health and safety and the environment. To terminate such licenses, NRC must ensure that licensees meet the Commission's decommissioning requirements including the provisions of 10 CFR 20 subpart E—Radiation Criteria for License Termination.

C. USACE is administering and executing cleanup at FUSRAP sites pursuant to a March 1999, MOU with the Department of Energy and the provisions of the Energy and Water Development Appropriations Acts for Fiscal Years 1998–2001 (Public Laws 105-62, 105-245, 106-60 and 106-377, respectively). Section 611 of Pub. L. 106-60 requires the USACE to remediate FUSRAP sites, in accordance with, and subject to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. 9601 *et seq.*, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR, chapter 1, part 300. Section 611 also confers lead agency status on the USACE for remedy selection. USACE, as provided for in section 121(e) of CERCLA and 40 CFR 300.400(e), is not required to obtain a NRC license for its on-site remediation activities conducted under its CERCLA authority. However, if a response action is required, CERCLA requires the remedy to be protective of human health and the environment.

D. This MOU describes how the two agencies will work together to meet their existing statutory responsibilities. It neither creates nor removes any agency responsibility or authority. This MOU is not an admission of responsibility or liability on the part of

the United States with regard to any hazardous substances or operations at a licensed site; does not relieve a license holder of its responsibilities and liabilities under any law; and does not create rights in any third party against USACE, NRC, or the United States.

E. CERCLA obligations imposed on the USACE may duplicate the obligations established by NRC regulations and licenses, resulting in duplicate regulatory requirements at NRC-licensed FUSRAP sites that will impose an added regulatory burden without an added safety benefit. To avoid unnecessary duplication of regulatory requirements and effort, this MOU sets out the conditions, consistent with the protection of the public health and safety, that will permit NRC to exercise its discretion to suspend NRC issued licenses at FUSRAP sites so that NRC requirements do not hinder USACE in its remediation of sites under CERCLA.

F. Each agency will bear its own costs for actions consistent with this MOU, but this does not preclude each agency from recovering costs, based on its statutory authority, from the licensee or responsible parties.

G. Use of Terms.

1. The term "response action" means response actions as defined in CERCLA at 42 U.S.C. 9601(25) including removal and remedial actions and related CERCLA enforcement actions.

2. The term "closeout" means that all construction activities and reports are complete, the cleanup goals specified in the final ROD are achieved, coordination with regulatory agencies, and publication of notice in accordance with the provisions of CERCLA, the National Contingency Plan (NCP) and USACE procedures have been completed.

3. The term "completed response action" means that all construction activities are complete; for components other than ground or surface water, the cleanup goals specified in the ROD are achieved; any ground and/or surface water restoration remedies are operating as designed; and a remedial or removal action report is complete.

4. The term "FUSRAP site" means any geographic area certified by the Department of Energy (DOE) to have been used for activities in support of the Nation's early atomic energy program, and determined by USACE to require a response action pursuant to CERCLA or placed into the FUSRAP program pursuant to Congressional direction. A FUSRAP site may overlap all, or any part, of an NRC-licensed site.

5. The term "possession" means physical control of the property or

materials for purposes of environmental restoration and protection of the health and safety of the public.

Possession does not require ownership nor is USACE assuming responsibility for the operations and activities of the NRC licensee or owner of the materials. The USACE will take control only of the FUSRAP-related materials on the licensed site as provided in paragraph III. B. Non-FUSRAP materials, unless the responsibility of the USACE under CERCLA, remain under control of the licensee.

6. The term "licensed site" means that a NRC license has been issued, and remains active or suspended, to possess and use material licensed under the Atomic Energy Act at the site.

Article II—Intragency Communication

To provide for consistent and effective communication between NRC and USACE, each agency shall appoint a Principal Representative to serve as its headquarters-level point of contact on matters relating to this MOU. Written notices required by the MOU shall be sent to the USACE's and NRC's Principal representatives. The Principal Representatives are:

Chief, Decommissioning Branch,
Division of Waste Management, U.S.
Nuclear Regulatory Commission,
Washington, DC 20555

Chief, Environmental Division,
Directorate of Military Programs, U.S.
Army Corps of Engineers 441 G Street,
NW., Washington, DC 20314-1000

Article III—Agreement

A. At the request of USACE, NRC will initiate action for the suspension of the NRC license or portions of the license for a FUSRAP site to be remediated by USACE under CERCLA authority contingent upon USACE notifying the NRC in writing that:

(1) USACE is prepared to take physical possession of all or part of the licensed site for purposes of control of radiation from FUSRAP materials subject to NRC jurisdiction and be responsible for the protection of the public health and safety from those materials consistent with 10 CFR part 20 "Standards For Protection Against Radiation" and other requirements consistent with CERCLA;

(2) USACE will conduct a response action at the licensed site under its FUSRAP and CERCLA authority, with regard to FUSRAP materials subject to NRC jurisdiction, to meet at least the standards required under 10 CFR 20.1402, and

(3) USACE has no objection to, and will facilitate, NRC observing USACE in-process remediation activities.

Such written notification to the NRC should be provided after the final Record of Decision (ROD), or its equivalent, is issued, if one is prepared, and at least 90 calendar days prior to USACE's expected date of initiation of a site response action so that the NRC can initiate the process for suspension of the license. Prior to submitting the notification, USACE will make a reasonable attempt to obtain the licensee's consent to USACE's proposed action and document the results of this effort in the notification.

B. Depending on the extent of FUSRAP materials and their separability from other hazardous substances on the site, USACE's responsibility may encompass the entire site, portions of the site, all the radioactive materials or just the FUSRAP and commingled materials, as specified in the final ROD. USACE will notify NRC of its findings regarding the type and extent of hazardous substance on a licensed site prior to requesting license suspension. Prior to USACE submitting a request for license suspension on a site where the NRC license suspension will not encompass the entire site, USACE and NRC will meet to agree on the scope of the suspension. The licensee may be involved in these discussions.

C. NRC licensing action for the suspension of the license, or portions of the license, will be effective, subject to:

(1) Written notification from USACE to the NRC that USACE has taken physical possession of the licensed site for purposes of radiation control and is now responsible for the protection of the public health and safety consistent with the requirements of 10 CFR Part 20 and

(2) The effectiveness rules of the NRC hearing process pursuant to 10 CFR Part 2, "Rules Of Practice For Domestic Licensing Proceedings And Issuance Of Orders."

Prior to license suspension, the licensee retains responsibility for meeting the Commission's requirements for protecting the environment and the health and safety of the public.

D. NRC may observe, as it deems warranted, remediation activities being conducted by USACE. For the purpose of scheduling in-process activity observation, USACE shall provide the NRC with the schedule of major activities, regular progress reports on sites' activities, studies, and/or remediation, and planned work stoppages.

E. The NRC shall keep USACE apprised in writing of questions,

comments or concerns arising from any NRC observations of USACE response action activities and shall immediately notify the USACE of any conditions having a potential to adversely affect the environment or the health and safety of the public.

F. USACE shall be responsible for the protection of the health and safety of the public consistent with the requirements of CERCLA and 10 CFR part 20 during the time it is in physical possession of the licensed site or portions thereof which are suspended in accordance with the agreement at the time of license suspension.

G. USACE shall remediate the licensed site to meet at least the requirements of CERCLA and of 10 CFR 20.1402. The Applicable or Relevant and Appropriate Requirement (ARAR) in the final executed ROD will include 10 CFR 20.1402 or a more stringent requirement.

H. USACE shall manage all activities and prepare program estimates, funding requirements, and budget justifications for all FUSRAP activities for which it has been given responsibility as provided by the annual Energy and Water Development Appropriations Act, and the terms of this MOU. USACE shall request FUSRAP appropriations in the annual Energy and Water Development Appropriations Act for these activities. USACE shall respond to inquiries from public officials, Congressional interests, stakeholders, and members of the press regarding USACE activities under FUSRAP.

I. USACE shall consult with NRC if USACE surveys, investigations, and data analyses are inconsistent with the NRC description of the potential radioactive and/or chemical contaminants and processes involved in the historical activities at a licensed site at which the USACE is conducting a FUSRAP investigation or response action under CERCLA. USACE shall immediately notify NRC if, as a result of its Preliminary Assessments, Remedial Investigations, or other surveys prior to production of a ROD, conditions warrant a time-critical removal action, and the agencies will identify an appropriate response that protects the environment and the health and safety of the public.

J. USACE shall notify NRC in writing if there is a need for a radiological response action under FUSRAP on any property not covered by the license suspended or to be suspended (whether or not owned by the licensee) as a result of radioactive contamination from a licensed site undergoing a FUSRAP investigation or response action.

K. Following completion of the response action at a FUSRAP site with an NRC-licensed facility, USACE shall provide the NRC with a copy of the CERCLA Administrative Record for the NRC historical public record. At the time of close out USACE will provide NRC with copies of any additional information that has been placed in the CERCLA Administrative Record.

L. USACE shall notify the NRC in writing if there are NRC-licensed facilities on FUSRAP sites that may require coordination with the NRC in addition to the four known sites: Maywood Site (Stepan), Maywood, NJ; CE-Windsor Site, Windsor, CT; St. Louis Downtown Site (Mallinkrodt), St. Louis, MO; and the Shallow Land Disposal Area, Parks Township, PA.

M. USACE shall keep NRC apprised in writing of progress toward completion of Preliminary Assessments and/or Site Investigations at licensed sites to determine:

(1) Whether FUSRAP and commingled materials at the site are a threat or potential threat to public health and safety or the environment as a result of the licensed materials there; and

(2) Whether the release requires a response under CERCLA.

N. The NRC will reinstate the license or portions of the license put into suspension due to USACE's remediation if USACE:

(1) Is no longer controlling the FUSRAP-related portion of the licensed site for radiation protection purposes,

(2) Is no longer proceeding with a response action at the licensed site under CERCLA, or

(3) Has otherwise completed its response action.

At least 90 calendar days prior to USACE terminating its physical possession of the licensed site for purpose of control of radiation, USACE will notify the NRC in writing so that the NRC can initiate the process for reinstating the license. USACE shall promptly notify NRC in writing if annual funding for the FUSRAP response action at an NRC-licensed site does not appear to be sufficient to complete the response action.

O. NRC shall be responsible for appropriate regulatory action, including requiring any further decommissioning if necessary, following license reinstatement.

P. As may be necessary, NRC and USACE will develop working procedures to implement this MOU. Such procedures will be approved by the Principal Representatives.

Article IV—Further Assistance

NRC and USACE shall provide such information as may be reasonably necessary or required, which are not inconsistent with applicable laws and regulations, and the provisions of this MOU, in order to give full effect to this MOU and to carry out its intent.

Article V—Dispute Resolution

Every effort will be made to resolve issues between NRC and USACE by the staff directly involved in the activities at issue, through consultation and communication. If a mutually acceptable resolution cannot be reached, the dispute will be elevated to successively higher levels of management up to the signers of this MOU. If resolution cannot be reached, NRC may in its discretion reinstate the licenses involved after providing a written 30 calendar day advance notice to the USACE. Upon license reinstatement, USACE's obligations under this MOU for the particular site shall cease and the licensee becomes responsible for control of radioactive materials on the licensed site, as well as protecting the environment and the health and safety of the public, subject to NRC regulation and other applicable law. Upon determining that the licensee has established control of the site and hazardous substances, USACE will relinquish possession of the site and hazardous substances, will cease remediation activities, and will vacate the site. License reinstatement constitutes notice of the shift in responsibility for control of the site and its hazardous substances.

Article VI—Amendment and Termination

This MOU may be modified or amended in writing by the mutual agreement of the parties. Either party may terminate the MOU by providing written notice to the other party. The termination shall be effective 60 calendar days following notice, unless the parties agree to a later date. Termination of this MOU does not relieve USACE of its statutory responsibility for protecting the environment or the health and safety of the public until NRC has reinstated the license and the licensee has taken control of the site and its hazardous substances.

Article VII—Effective Date

This MOU shall become effective when signed by authorized officials of NRC and USACE.

Dated: February 2, 2001.
U.S. Nuclear Regulatory Commission.

Martin J. Virgilio,
Director, Office of Nuclear Materials Safety
and Safeguards, U.S. Nuclear Regulatory
Commission.

Dated: July 5, 2001.

U.S. Army Corps of Engineers.

Hans A. Van Winkle,
Major General, U.S. Army, Director, Civil
Works, U.S. Army Corps of Engineers.

[FR Doc. 01-17452 Filed 7-11-01; 8:45 am]

BILLING CODE 7590-01-P

OVERSEAS PRIVATE INVESTMENT CORPORATION

Submission for OMB Review; Comment Request

AGENCY: Overseas Private Investment Corporation (OPIC).

ACTION: Request for comments.

SUMMARY: Under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35), Agencies are required to publish a Notice in the Federal Register notifying the public that the Agency has prepared an information collection request for OMB review and approval and has requested published review and comment on the submission. OPIC published its first Federal Register Notice on this information collection request on May 2, 2001, in 66 FR 22054, at which time a 60-calendar day comment period was announced. This comment period ended July 2, 2001. No comments were received in response to this Notice.

This information collection submission has now been submitted to OMB for review. Comments are again being solicited on the need for the information, its practical utility, the accuracy of the Agency's burden estimate, and on ways to minimize the reporting burden, including automated collection techniques and uses of other forms of technology. The proposed form under review is summarized below.

DATES: Comments must be received on or before August 13, 2001.

ADDRESSES: Copies of the subject form and the request for review submitted to OMB may be obtained from the Agency Submitting Officer. Comments on the form should be submitted to the OMB Reviewer.

FOR FURTHER INFORMATION CONTACT:
OPIC Agency Submitting Officer: Carol Brock, Records Manager, Overseas Private Investment Corporation, 1100 New York Avenue, NW., Washington, DC 20527; 202/336-8563.

OMB Reviewer: David Rostker, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Docket

Dated: August 29, 1996.
 M. Rebecca Winkler,
Committee Management Officer.
 [FR Doc. 96-22562 Filed 9-4-96; 8:45 am]
 BILLING CODE 7555-01-M

Special Emphasis Panel in Networking and Communications Research and Infrastructure; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92-463, as amended), the National Science Foundation announces the following meeting.

Name: Special Emphasis for NSFNET Connections Panel (#1207)

Date and Time: September 25, 1996; 8:30 a.m. to 5:00 p.m.

Place: Room 1175

Type of Meeting: Closed

Contact Person(s): Mark Luker, Program Director, CISE/NCRI, Room 1175, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, (703) 306-1950.

Purpose of Meeting: To provide advice and recommendations concerning proposals submitted to NSF for financial support.

Agenda: To review and evaluate proposals submitted for the NSFNET Connections Program.

Reason for Closing: The proposals being reviewed include information of a proprietary or confidential nature, including technical information; financial data, such as salaries, and personal information concerning individuals associated with the proposals. These matters are exempt under 5 U.S.C. 552b.(c) (4) and (6) of the Government in the Sunshine Act.

Dated: August 29, 1996.
 M. Rebecca Winkler,
Committee Management Officer.
 [FR Doc. 96-22561 Filed 9-4-96; 8:45 am]
 BILLING CODE 7555-01-M

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Nuclear Waste; Notice of Meeting

The Advisory Committee on Nuclear Waste (ACNW) will hold its 86th meeting on September 26 and 27, 1996, at the Hotel San Remo, 115 East Tropicana Avenue, Las Vegas, Nevada, in Chateau 1 and Chateau 2. The date of this meeting was previously published in the Federal Register on Wednesday, December 6, 1995 (60 FR 62485).

The entire meeting will be open to public attendance. The agenda for this meeting shall be as follows: *Thursday, September 26, 1996—8:30 A.M. until 6:00 P.M. Friday, September 27, 1996—8:30 A.M. until the conclusion of business*

During this meeting, the Committee plans to consider the following:

A. Radionuclide Transport at Yucca Mountain—The Committee will investigate the status and results of studies and modeling of radionuclide transport in the saturated and unsaturated zone at Yucca Mountain. This topic will constitute the entire meeting on Thursday. Specific focus will be on the transport of radionuclides in fracture systems at Yucca Mountain. This will include the ingress of water to the repository horizon and geochemical processes that affect transport of radionuclides out of the repository via fracture systems.

B. Site Characterization—The Committee will discuss site characterization integration through the use of performance assessment. A continuation of discussions with the Department of Energy on Total System Performance Assessment will be held with emphasis on the use of expert elicitation panels.

C. Repository Design for Viability Assessment—The Committee will discuss the advanced conceptual design for the proposed repository at Yucca Mountain, Nevada, with representatives of the Department of Energy and other interested parties.

D. Public Comments—The Committee will hear comments from members of the public on concerns related to nuclear waste disposal.

E. Preparation of ACNW Reports—The Committee will discuss proposed reports, including: radionuclide transport at Yucca Mountain, specifying a critical group and reference biosphere to be used in a performance assessment of a nuclear waste disposal facility, the consideration of coupled processes (thermal-mechanical-hydrological-chemical) in the design of a high-level waste repository, time of compliance in high- and low-level waste disposal, and the DOE program plan and waste isolation strategy.

F. Committee Activities/Future Agenda—The Committee will consider topics proposed for future consideration by the full Committee and Working Groups. The Committee will discuss ACNW-related activities of individual members.

G. Miscellaneous—The Committee will discuss miscellaneous matters related to the conduct of Committee activities and organizational activities and complete discussion of matters and specific issues that were not completed during previous meetings, as time and availability of information permit.

Procedures for the conduct of and participation in ACNW meetings were published in the Federal Register on

September 27, 1995 (60 FR 49924). In accordance with these procedures, oral or written statements may be presented by members of the public, electronic recordings will be permitted only during those portions of the meeting that are open to the public, and questions may be asked only by members of the Committee, its consultants, and staff. Persons desiring to make oral statements should notify the Chief, Nuclear Waste Branch, Mr. Richard K. Major, as far in advance as practicable so that appropriate arrangements can be made to schedule the necessary time during the meeting for such statements. Use of still, motion picture, and television cameras during this meeting will be limited to selected portions of the meeting as determined by the ACNW Chairman. Information regarding the time to be set aside for this purpose may be obtained by contacting the Chief, Nuclear Waste Branch prior to the meeting. In view of the possibility that the schedule for ACNW meetings may be adjusted by the Chairman as necessary to facilitate the conduct of the meeting, persons planning to attend should notify Mr. Major as to their particular needs.

Further information regarding topics to be discussed, whether the meeting has been canceled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefore can be obtained by contacting Mr. Richard K. Major, Chief, Nuclear Waste Branch (telephone 301/415-7366), between 8:00 A.M. and 5:00 P.M. EDT.

ACNW meeting notices, meeting transcripts, and letter reports are now available on FedWorld from the "NRC MAIN MENU." Direct Dial Access number to FedWorld is (800) 303-9672; the local direct dial number is 703-321-3339.

Dated: August 29, 1996
 Andrew L. Bates,
Advisory Committee Management Office.
 [FR Doc. 96-22612 Filed 9-04-96; 8:45 am]
 BILLING CODE 7590-01-P

Issuance of a Memorandum of Understanding between the Nuclear Regulatory Commission and the Pennsylvania Department of Environmental Protection

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of issuance of a Memorandum of Understanding.

SUMMARY: This notice is to advise the public of the issuance of a Memorandum of Understanding (MOU)

between the U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Pennsylvania Department of Environmental Protection (PADEP). The MOU provides the basis for cooperation between the agencies to facilitate the safe and timely remediation and decommissioning of Site Decommissioning Management Plan Sites (SDMP) and other decommissioning sites in Pennsylvania at which both agencies exercise regulatory authority.

The broad MOU expresses the desire of PADEP and the NRC to cooperate in areas subject to the jurisdiction of both parties. Under the MOU, PADEP and NRC will designate site coordinators for each SDMP site in Pennsylvania. Each agency will provide the other with reasonable notice of inspections, and meetings with other agencies or the public which concern a particular SDMP site. The MOU also provides the basis for the dissemination of information between the agencies and the review and comment of draft documents.

EFFECTIVE DATE: This MOU was effective July 15, 1996.

FOR FURTHER INFORMATION CONTACT: Heather Astwood, Division of Waste Management, U.S. Nuclear Regulatory Commission, Mail Stop T-7-F27, Washington, D.C., 20555, telephone (301) 415-5819.

Dated at Rockville, MD this 28th day of August 1996.

For the U.S. Nuclear Regulatory Commission.

Michael F. Weber,

Chief Low-Level Waste and Decommissioning Projects Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

Memorandum of Understanding Between the United States Nuclear Regulatory Commission and the Commonwealth of Pennsylvania Department of Environmental Protection

1. Purpose. This Memorandum of Understanding ("MOU") is intended to provide a framework for voluntary cooperation between the United States Nuclear Regulatory Commission ("NRC") and the Commonwealth of Pennsylvania, Department of Environmental Protection ("DEP") to facilitate the safe and timely remediation and decommissioning of Site Decommissioning Management Plan ("SDMP") and other decommissioning sites in Pennsylvania at which both agencies exercise regulatory authority.

2. Regulatory Authority. The NRC regulates radioactive material and related activities at SDMP sites and licensed nuclear facilities under authority of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2011 *et seq.* The DEP administers and enforces Pennsylvania's environmental statutes, including the Solid Waste Management Act, 35 P.S. § 6018.101 *et seq.*; the Clean Streams Law, 35 P.S. § 691.1 *et seq.*; and the Radiation Protection Act, 35 P.S. § 7110.101 *et seq.*

3. Designation of Site Coordinators. Within ninety (90) days after execution of this MOU, each agency will designate a site coordinator for each SDMP site identified in Appendix A. Each agency shall notify the other, in writing, of the name, address, telephone and facsimile numbers of each site coordinator. Each agency may also designate coordinators for other decommissioning sites. Any changes in the designation of a coordinator will be communicated in writing to the other agency.

4. Meetings and Conference Calls between the Agencies. At the request of either agency, with reasonable notice, a meeting or conference call will be scheduled between the site coordinators and other agency representatives to discuss coordination of remediation and decommissioning activities.

5. Technical and Regulatory Consultation. At the request of either agency, with reasonable notice, representatives of each will be made available to discuss technical or regulatory matters pertaining to the SDMP site or other decommissioning sites.

6. Meetings with the Public. Except in response to site emergencies, each agency will notify the other, at least two weeks in advance, of any public meeting related to remediation or decommissioning activities at an SDMP or other decommissioning site.

7. Meetings with Other Regulatory Entities. At its discretion, an agency may invite representatives of the other agency to attend meetings with other regulatory entities who share some responsibility for the SDMP or other decommissioning site. At a minimum, an agency will keep the other agency informed of such meetings and the results of those meetings. It should be noted that the NRC has an Open Meeting Policy which would require these meetings to be open to the public because they would almost always involve discussions concerning a specific licensee (Open Meeting Statement of NRC Staff Policy, 59 Federal Register 48340, 9/20/94).

8. Notice of Site Inspections. Each agency will make a good faith effort to

coordinate routine site inspections of SDMP sites and other decommissioning sites by providing advance notice to the other agency.

9. Dissemination of Information to Other Agencies. As necessary to effectively implement remediation and decommissioning of SDMP and other decommissioning sites, the agencies will coordinate pertinent and appropriate dissemination of information to other Federal, State and local Government agencies.

10. Exchange of Information Between Agencies.

A. The agencies will exchange information concerning the remediation and decommissioning of SDMP or other decommissioning sites as follows:

i. Within two weeks of receipt, the following information will be forwarded from one agency to the other: plans and reports relating to site assessment/characterization; remediation or decommissioning; and all available related analytic data generated through site remediation or decommissioning.

ii. Upon request, NRC will make available to DEP for review and copying any documents disclosable to the public under the Freedom of Information Act, 5 U.S.C. § 552, NRC regulations in 10 CFR Part 9, Public Records, and in 10 CFR Part 2.790, public inspections, exemptions, requests for withholding, and any other applicable Federal statute, regulation, or policy.

iii. Upon request, DEP will make available to the NRC for review and copying any documents disclosable to the public under the Public Right to Know Act, 65 P.S. § 66.1 *et seq.*, DEP's public information policy, and any other applicable Pennsylvania statute, regulation, or policy.

B. All documents exchanged by the agencies will be addressed to the designated coordinator for the SDMP site.

C. Nothing in this MOU shall be construed as compelling either agency to produce information or documents which the agency deems confidential or privileged. If such documents are exchanged, each agency will respect the confidentiality of the information and will make every attempt to avoid disclosure in accordance with administrative procedures.

11. Disclosure of Information to the Public. The right of access by the public to information under Federal and State law, regulation, or policy is not affected by this MOU.

12. Review and Comment on Documents.

A. Each agency should expeditiously forward drafts of documents it has prepared, or copies of documents

received from third persons which potentially impact remediation of hazards under the other agency's jurisdiction, to solicit the other agency's review and comments.

B. The agency requesting comments will specify the date by which a response is needed. The review and comments should be completed in a reasonable time (or approximately 30 days).

C. Comments will be returned within the specified response period. In cases where there are no comments, that information will be provided within the response period.

D. Requests for comments or responses will be addressed to the agency's site coordinator.

E. Final agency decisions and documents potentially impacting remediation of hazards under the other agency's jurisdiction will be transmitted by facsimile the same day these documents are sent to the facility management or released to the public.

13. *Modifications.* Any modifications or changes to this MOU shall only be effective if agreed to by the parties and set forth in writing as an amendment of this MOU.

14. *Reservation of Rights.* Nothing in this MOU shall affect the rights, duties and authority of either agency under the law. The agencies reserve their respective authority and rights to take any enforcement action which they deem necessary to fulfill their duties and responsibilities under the law.

15. *Non-binding Memorandum.* This memorandum is not intended to and does not create any contractual rights or obligations with respect to the NRC, DEP, or any other parties.

Dated: April 11, 1996.

Carl J. Paperiello,
Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission.

Dated: July 15, 1996

James W. Rue,
Deputy Secretary, Air, Recycling and Radiation Protection, Commonwealth of Pennsylvania, Department of Environmental Protection.

Appendix A—Site Decommissioning Management Plan Sites in the Commonwealth of Pennsylvania

Babcock & Wilcox; Apollo, PA
Babcock & Wilcox; Parks Township, PA
Cabot Corporation; Boyertown, PA
Cabot Corporation; Reading, PA
Cabot Corporation; Revere, PA
Molycorp, Inc.; Washington, PA
Molycorp, Inc.; York, PA
Permagrain Products; Media, PA
Pesses Company, METCOA Site; Pulaski, PA
Safety Light Corporation; Bloomsburg, PA
Schott Glass Technologies; Duryea, PA

Westinghouse Electric Corporation; Waltz Mill, PA
Whittaker Corporation; Greenville, PA
[FR Doc. 96-22614 Filed 9-4-96; 8:45 am]
BILLING CODE 7590-01-P

Draft Regulatory Guides; Issuance, Availability

The Nuclear Regulatory Commission has issued for public comment drafts of six guides planned for its Regulatory Guide Series. This series has been developed to describe and make available to the public such information as methods acceptable to the NRC staff for implementing specific parts of the NRC's regulations, techniques used by the staff in evaluating specific problems or postulated accidents, and data needed by the staff in its review of applications for permits and licenses.

These draft guides, presently identified by their task numbers, endorse industry consensus standards of the Institute of Electrical and Electronics Engineers. The guides and the standards they endorse are DG-1054, "Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," which endorses IEEE Std 1012-1986, "IEEE Standard for Software Verification and Validation Plans," and IEEE Std 1028-1988, "IEEE Standard for Software Reviews and Audits"; DG-1055, "Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," which endorses IEEE Std 828-1990, "IEEE Standard for Software Configuration Management Plans," and ANSI/IEEE Std 1042-1987, "IEEE Guide to Software Configuration Management"; DG-1056, "Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," which endorses ANSI/IEEE Std 829-1983, "IEEE Standard for Software Test Documentation"; DG-1057, "Software Unit Testing for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," which endorses ANSI/IEEE Std 1008-1987, "IEEE Standard for Software Unit Testing"; DG-1058, "Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," which endorses IEEE Std 830-1993, "IEEE Recommended Practice for Software Requirements Specifications"; and DG-1059, "Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," which endorses IEEE Std

1074-1995, "IEEE Standard for Developing Software Life Cycle Processes." These guides will be in Division 1, "Power Reactors." These draft guides are being developed to provide current guidance on methods acceptable to the NRC staff for complying with the NRC's regulations for promoting high functional reliability and design quality in software used in safety systems of nuclear power plants.

The draft guides have not received complete staff review and do not represent official NRC staff positions. No backfitting is intended or approved in connection with the issuance of these proposed guides. Any backfitting that may result from application of this new guidance to operating plants will be justified in accordance with established NRC backfitting guidance and procedures. These draft guides have been released to encourage public participation in their development. Except in those cases in which an applicant proposes an acceptable alternative method for complying with specified portions of the NRC's regulations, the methods to be described in the active guide reflecting public comments will be used in the evaluation of submittals in connection with applications for construction permits, standard design certifications and design approvals, and combined operating licenses. The active guides will also be used to evaluate submittals from operating reactor licensees who propose modifications that go beyond the current licensing basis, if those modifications are voluntarily initiated by the licensee and there is a clear connection between the proposed modifications and this guidance. The final guides will be used in conjunction with, and will eventually be reflected in, the Standard Review Plan, which is currently under revision.

Public comments are being solicited on the guide. Comments should be accompanied by supporting data. Written comments may be submitted to the Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Copies of comments received may be examined at the NRC Public Document Room, 2120 L Street NW., Washington, DC. Comments will be most helpful if received by October 31, 1996.

Although a time limit is given for comments on this draft guide, comments and suggestions in connection with items for inclusion in guides currently being developed or improvements in all published guides are encouraged at any time.

The Need for the Proposed Action

The proposed amendment is needed to allow the licensee to implement the programmatic controls of GL 89-01, to implement the revised 10 CFR Part 20, to make editorial changes to the Radioactive Effluent Release Report in accordance with 10 CFR 50.36a, and to allow an annual submittal for the Radioactive Effluent Release Report.

Environmental Impacts of the Proposed Action

The NRC has completed its evaluation of the proposed action and concludes that there are no adverse environmental impacts associated with the proposed action.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure; therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action does not involve any historic sites. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, there are no significant nonradiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Indian Point Nuclear Generating Unit No. 3.

Agencies and Persons Consulted

In accordance with its stated policy, on November 1, 1999, the staff consulted with the New York State official, Jack Spath, of the New York State Energy Research and Development Authority, regarding the environmental

impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated February 19, 1998, as supplemented by letter dated July 28, 1999, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC. Publicly available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, <http://www.nrc.gov> (the Electronic Reading Room).

Dated at Rockville, Maryland, this 29th day of December 1999.

For the Nuclear Regulatory Commission
George F. Wunder,
Project Manager, Section 1, Project
Directorate I, Division of Licensing Project
Management, Office of Nuclear Reactor
Regulation.

[FR Doc. 00-343 Filed 1-6-00; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Memorandum of Understanding Between the U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards, and the U.S. Department of Energy, Office of Waste Management, Concerning the Management of Sealed Sources

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice.

SUMMARY: This notice is to advise the public of the issuance of a Memorandum of Understanding (MOU) between the Nuclear Regulatory Commission (NRC) and the Department of Energy (DOE). The purpose of the MOU is to address the problem of unwanted and uncontrolled radioactive materials, often referred to as "orphan sources". The MOU defines the agreed-upon roles and responsibilities of the NRC and DOE in situations involving orphan sources where the NRC is responsible for leading the Federal response, where immediate health and safety hazards have been addressed, and where assistance with the transfer of the

radioactive material is determined to be necessary for continued protection of public health and safety and the environment.

EFFECTIVE DATE: June 18, 1999.

ADDRESSES: Copies of all NRC documents are available for public inspection, and copying for a fee, in the NRC Public Document Room, 2120 L Street, NW (Lower Level), Washington, DC. The NRC Public Document Room is open from 7:45 a.m. to 4:15 p.m., Monday through Friday (except Federal holidays). Telephone service is provided from 8:30 a.m. to 4:15 p.m. at 202-634-3273 or toll-free at 1-800-397-4209.

FOR FURTHER INFORMATION CONTACT:

Douglas A. Broadus, NMSS, Mail Stop T8-F5, U.S. Nuclear Regulatory Commission, Washington, DC 20005-0001. Telephone: (301) 415-5847; Fax: (301) 415-5369; e-mail: dab@nrc.gov.

Dated at Rockville, Maryland, this 23rd day of December 1999.

For the Nuclear Regulatory Commission.
Donald A. Cool,
Director, Division of Industrial and Medical
Nuclear Safety, Office of Nuclear Material
Safety and Safeguards.

Memorandum of Understanding Between the U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards and the U.S. Department of Energy, Office of Waste Management, Concerning Management of Sealed Sources

I. Introduction

The Federal Radiological Emergency Response Plan (FRERP) provides guidance for the response of Federal agencies in peacetime radiological emergencies that have actual, potential, or perceived radiological consequences within the United States, its Territories, possessions, or territorial waters. Although the FRERP encompasses a broad range of radiological emergencies, it does not provide specific actions that each agency must take when a radiological emergency is identified. This Memorandum of Understanding (MOU) defines the roles and responsibilities between the U.S. Nuclear Regulatory Commission (NRC) and the Department of Energy (DOE) in situations where the NRC is responsible for the Federal response to a radiological emergency, but that does not require an immediate response (i.e., activation of the NRC Incident Response Plan as described in NRC Management Directive 8.2), and where the transfer of licensed source, special nuclear, or byproduct radioactive material—as defined under the Atomic Energy Act of

1954, as amended (the Act)—primarily in the form of sealed sources and devices as described in section IV. B., to the DOE is determined to be necessary to protect the public health and safety and the environment.

II. Background

This MOU formally defines the activities carried out since 1992 under agreements reached via exchange of correspondence between NRC and DOE. The need for this agreement arose due to the fact that licensed radioactive material which exceeds the Class C limits defined in § 61.55, Title 10 Code of Federal Regulations (CFR) is not acceptable for disposal at commercial disposal sites. The Low-Level Radioactive Waste Policy Amendments Act of 1985 (Pub. L. 99-240) made DOE responsible for the ultimate disposition of this material. Until such time as the DOE has in place a disposal or routine acceptance and storage capability for the various types of this material, this agreement is necessary to allow transfer of material which exceeds Class C limits from NRC and Agreement State licensees to the DOE in limited situations which pose an actual or potential threat to the public health and safety.

Under limited situations, described in more detail in Section IV. A. of this agreement, DOE will consider accepting material at the request of NRC which does not exceed Class C limits, but only under situations where there is an actual or potential threat to the public health and safety that cannot be mitigated by other reasonable means.

III. Purpose

This MOU applies to the recovery and disposition of byproduct, source, and special nuclear material in the possession of licensees and in the public domain by the DOE at the request of NRC. Although this MOU is intended to apply to these materials in the form of sealed sources, it is envisioned that under rare circumstances this MOU will apply to the recovery and disposition of radioactive materials in other forms, as described in section IV. B. In addition, this agreement applies only to material in the private sector, licensed by NRC or an Agreement State, which represents an actual or potential threat to the public health and safety.

The determination of an actual or potential threat to the public health and safety will be made by the NRC as described in this MOU, in consultation with and participation by DOE, and may be based on such factors as condition of the material, environmental conditions that may affect the containment of the

material, or loss of adequate controls by the licensee because of financial, technical, or other reasons. This MOU represents the process by which NRC may request assistance of DOE to mitigate or eliminate an actual or potential threat to the public health and safety from sealed sources and devices, after all other reasonable alternatives have been unsuccessfully explored.

This MOU does not apply to situations where the DOE has in-place the required capabilities for routine acceptance, storage, and/or disposal of material which exceeds the limits of § 61.55, 10 CFR as specified in Pub. L. 99-240. Any agreements required under those situations will be entered into separately or as a specific modification of this MOU. In addition, this MOU does not apply to situations which require activation of the NRC Incident Response Plan, nor does it apply to safeguards or reactor incidents.

IV. Scope

A. Types of Radioactive Materials

This agreement is limited to only those radioactive materials which are defined under the Atomic Energy Act of 1954, as amended, as source, special nuclear, or byproduct materials. This agreement does not have the authority to require the NRC or DOE to respond to non-emergency situations, pursuant to this MOU, involving radioactive materials or to respond to emergency situations which do not involve materials regulated by the NRC.

This agreement is primarily intended to provide, under emergency situations as described in this MOU, for the proper recovery and disposition by the DOE of radioactive materials that are regulated by NRC that exceed Class C waste limits defined in § 61.55, 10 CFR. Radioactive materials which do not exceed Class C limits are also covered by this agreement in circumstances that represent an actual or potential threat to the public health and safety and for which there are no other reasonable alternatives to mitigate the threat. NRC and DOE will consider situations involving radioactive material which does not exceed Class C limits on a case-by-case basis as described in section IV. E., or other agreed upon procedures.

Routine acceptance of material that does not exceed Class C limits is not a part of this MOU and would fall under the authority of the States in accordance with the intent of Pub. L. 99-240. No activities contained in this MOU are intended to undermine the authorities and responsibilities of the States as defined in Pub. L. 99-240. Further, situations which would be considered

an emergency solely due to the lack of access to a compact or regional disposal site are not part of this MOU. These situations are covered in the emergency access provisions of Pub. L. 99-240 and must be addressed in accordance with 10 CFR Part 62. The purpose of 10 CFR Part 62 is to mitigate any serious or immediate threat to the public health and safety due to denial of access to a low-level waste disposal facility.

B. Form of Radioactive Material

This agreement primarily addresses the radioactive materials defined in section IV. A. in the form of sealed sources or in devices containing sealed sources. In general, the material must also be a form that is readily transportable, does not require significant special handling or unique handling equipment or capabilities, and is confined to a single location. Material forms which are determined to be outside these conditions will be handled on a case-by-case basis in accordance with section IV. E., or other agreed upon procedures.

C. Quantity of Radioactive Material

It is envisioned that most cases covered under this MOU will involve only a small number of sealed sources or devices, usually less than ten, and only relatively small licensees. Quantities of radioactive material contained in individual sealed sources or devices should not exceed the maximum authorized on the sealed source or device vendor's license. Situations involving significantly greater numbers of sealed sources or devices or large scale licensees will be considered on a case-by-case basis by the NRC and DOE in accordance with section IV. E., or other agreed upon procedures. Radioactive materials shall not be combined or altered for the sole purpose of meeting the conditions of this MOU.

D. Nature of the Threat to the Public and Response Required

This agreement does not apply to emergency situations requiring an immediate response, to situations for which immediate health and safety concerns have not been mitigated or to situations for which the NRC would not be designated as the Lead Federal Agency (LFA) for the federal response to a radiological emergency. This MOU addresses situations which the NRC determines, in consultation with DOE, represent an actual or potential threat to the public health and safety. The level of response required under this MOU will be based on an assessment of the potential health and safety

consequences of the situation (e.g., amount of material involved, potential for radiation exposure or releases of radioactive material, and potential impact on the environment).

The authorities and responsibilities of certain Federal agencies (including NRC and DOE) for responding to radiological emergencies are specified in the FRERP. Activities under this MOU must be consistent with the FRERP for responses to radiological emergencies and must not interfere with or take precedence over FRERP activities. In addition, actions necessary to mitigate an emergency requiring an immediate response, or to mitigate an immediate health and safety threat (radiological or otherwise)—including temporary control over radioactive material—must be taken prior to any DOE recovery or disposition activities.

Assistance by DOE to recover and manage the material may only be requested by NRC after all other reasonable alternatives to alleviate the situation are addressed. In addition, NRC shall identify the response requested of DOE. DOE shall determine the appropriate response to ensure the present or potential threat is mitigated or eliminated in such situations where existing controls may not be adequate to ensure long-term assurance of the public health and safety.

E. Exceptions to the Primary Intent of This MOU

The purpose of section IV, Scope, is to define the bounds of this agreement in specific terms. Paragraphs A–C of this section indicate that exceptions to the conditions of this agreement may be necessary. The reason for these exceptions is that it is recognized that situations involving actual or potential health and safety threats requiring DOE assistance will not be limited to only small quantities of sealed sources which exceed the Class C limits as defined in 10 CFR Part 61.55.

In situations where the materials involved do not meet the specific conditions described in paragraphs A–C above, but DOE assistance is determined by NRC to be necessary, then the NRC shall document the reason why it is appropriate to respond to the particular situation under the terms of this MOU, document why DOE assistance is necessary for the particular situation, and provide this information to DOE. The DOE shall review this information and document the response it intends to take based upon the information provided, and provide this information to the NRC. So as to not delay a response to a request for assistance, this exchange of information may take place

electronically, so long as hardcopy follow-up is provided.

F. Other Limitations

This agreement, and subsequent DOE recovery and disposition actions, are generally limited to packaging, transport, and/or receipt of radioactive materials, and the associated requirements to conduct those activities.

This agreement is not intended to require or imply that DOE will provide decontamination or clean-up activities, except as a direct result of a DOE recovery operation, nor will DOE be expected to perform recovery or disposition actions for materials other than those specifically identified in this document.

This MOU does not apply to requests for radiological assistance from DOE Radiological Assistance Program teams.

V. Authority and Regulatory Programs

A. NRC

NRC is responsible for licensing and regulating nuclear facilities and material and for conducting research in support of the licensing and regulatory process, as mandated by the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; in accordance with the National Environmental Policy Act of 1969, as amended; and other applicable statutes. NRC responsibilities include protecting public health and safety, protecting the environment, and safeguarding nuclear materials in the interest of national security.

The Office of Nuclear Material Safety and Safeguards (NMSS) was established under Section 204 of the Energy Reorganization Act of 1974, as amended, and is charged with the responsibility of protecting the public health and safety through regulatory control of the safe use of byproduct, source, or special nuclear material, for medical, industrial, academic, and commercial uses. To accomplish this goal, NMSS uses licensing, inspection, enforcement, development and implementation of regulations, guidance and policy, safety reviews for products that use the material (including sealed sources and devices), and other means available according to 10 CFR.

B. Agreement States

Section 274 of the Atomic Energy Act of 1954, as amended, provides the NRC the authority to discontinue its regulatory authority over certain radioactive materials (including sealed sources and devices) within a State that has agreed to establish and maintain a regulatory program for the materials that

is adequate to protect the public health and safety, and is compatible with NRC's program. States that have been found to meet these criteria and have entered into such agreements with NRC are called Agreement States. These Agreement States have independent authority to regulate the radioactive materials specified in the agreement within their boundaries, and are charged with protecting the public health and safety through the licensing, regulation, and enforcement of activities associated with the materials.

Under Pub. L. 99-240, each State is responsible for providing for the disposal of radioactive material which does not exceed a waste Classification of C that is generated within its boundaries. In addition, State and local governments have primary responsibility for determining and implementing appropriate measures to protect life, property, and the environment from radiological and other hazards.

C. DOE

DOE is responsible for conducting research and development, and other activities, to support the use of byproduct, source, and special nuclear materials for medical, biological, health, and other uses as mandated by the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; the Department of Energy Organization Act, as amended; and other applicable statutes.

DOE is responsible for the disposal of radioactive material which exceeds a waste Classification of C as defined in § 61.55, 10 CFR as mandated by Pub. L. 99-240. DOE is required to assure the public health and safety as mandated by Section 102(13) of the Department of Energy Organization Act, as amended, and is responsible jointly with NRC for the development of contingency plans to recall or recapture radioactive materials under Section 204(b)(2)(B) of the Energy Reorganization Act of 1974, as amended. In addition, DOE is granted the authority to take, requisition, condemn, or otherwise acquire any special nuclear, source, or byproduct material as authorized by Sections 55, 66, and 81, respectively, of the Atomic Energy Act of 1954, as amended.

VI. Agency Responsibilities and Agreements

NRC and DOE staffs will closely coordinate actions in both the planning and execution phases to: (1) ensure a timely response where DOE assistance is necessary; (2) provide adequate protection of the health and safety of the public and occupational workers

involved in responding to requests for assistance; and (3) ensure cost effective operations. Each agency will develop, in consultation with the other, appropriate procedures as necessary to implement this agreement. Each agency will designate the organization and key personnel responsible for the day-to-day coordination and management of activities covered by this MOU.

A. NRC Responsibilities

1. Upon discovery of a potential radioactive material incident concerning NRC or Agreement State licensed material in an uncontrolled condition that does not require activation of the NRC Incident Response Plan, the NRC regional and headquarters offices will follow the procedures contained in NRC Manual Chapter (MC) 1301, "Response to Radioactive Material Incidents that do not Require Activation of the NRC Incident Response Plan," or Policy and Guidance Directive (P&GD) 9-12, "Reviewing Efforts to Dispose of Licensed Material and Requesting DOE Assistance," as applicable.

a. Manual Chapter 1301 is applicable to this MOU in situations where licensed material is in an uncontrolled condition in an unrestricted area and a responsible party cannot be readily identified. Incidents applicable to MC 1301 may include locations which are unlicensed, as well as licensed locations where the licensee is not authorized to possess the radioactive material. When requesting assistance of DOE is considered for these type incidents, MC 1301 will be consulted for the procedures and guidance to follow for determining whether DOE assistance is appropriate and necessary. Once DOE assistance is determined to be appropriate and necessary, MC 1303, "Requesting Emergency Acceptance of Radioactive Material by DOE," will be consulted for the procedures for making the request.

b. P&GD 9-12 is applicable to this MOU in situations where an NRC or Agreement State licensee is unable to safely maintain control over its licensed material, or there is a high potential for the licensee to lose control of its licensed material. NRC and Agreement State license reviewers will use this document to determine if DOE assistance with the material is appropriate and necessary, and for making the request. This document contains, in part, guidance for determining the need for DOE assistance based on an evaluation of:

(1) whether viable options are available for recovery and disposition of the radioactive material, (2) the licensee's ability to adequately maintain

control over the material and available options for achieving this, and (3) whether the material is causing or has a high potential to cause a significant health and safety risk to members of the public.

2. Upon determining that DOE assistance is likely, NRC staff shall consult with DOE staff to: (1) provide appropriate information available on the incident (e.g., information listed in Enclosure 1 to P&GD 9-12 or MC 1303); (2) determine if any additional information is needed; and (3) identify any special conditions or requirements concerning the incident.

3. Upon determining that DOE assistance is appropriate and necessary, NRC staff shall formally request DOE assistance in accordance with MC 1303 or P&GD 9-12, as applicable. These documents specify the procedure for making an official request for DOE assistance, information that is to be provided to DOE (e.g., sealed source identification and condition information, licensee name, point of contact, applicable historical information, etc.), the DOE addressee for the request, and follow-up actions after the request is made. Prior to issuance of the formal request, NRC will notify the applicable DOE staff (via phone or electronic media) that the request is being made.

4. Prior and subsequent to requesting DOE assistance, NRC will determine the extent of assistance that other parties involved are responsible for, or are able to, provide for the recovery of the material to minimize the cost to the government. Examples include providing for the packaging and/or transport of the material.

5. Agreement States seeking DOE assistance applicable to this MOU shall make all requests through NRC, following the guidance in MC 1301, MC 1303, or P&GD 9-12. NRC staff will evaluate the Agreement State's request and determine if all applicable information has been provided and if requesting DOE assistance is appropriate and necessary. NRC will not forward the request to DOE until the request contains complete information and provides sufficient justification for requesting DOE assistance, and will work with the Agreement State to obtain this information. NRC will make all requests for DOE assistance under this MOU on behalf of the Agreement States and shall serve as the single point-of-contact for evaluating the requests in accordance with this MOU.

6. NRC shall arrange for transfer of title of the recovered materials to DOE or to other parties who will take

possession of the material, as designated by DOE.

7. Within its regulatory authority, NRC will ensure, and expedite where appropriate, license and/or certification reviews and amendments are performed as necessary to support safe and timely recovery of the materials and to minimize costs to the government incurred in recovery and shipment operations.

8. NRC shall coordinate the efforts of non-DOE involved parties in recovery operations, and participate, as appropriate and necessary, to ensure adequate protection of public/worker health and safety, and to ensure regulatory compliance, as applicable.

B. DOE Responsibilities

1. DOE staff will participate and consult with NRC in the determination process for requesting DOE assistance.

2. Upon receipt of a formal request for assistance, DOE will review the request against the requirements of this agreement, Departmental policies in effect at the time of the request, changes in legislative authority which may affect actions requested, and expected cost versus available funds to carry out the requested action. DOE will review each request to ensure all reasonable options for disposition have been exhausted prior to providing assistance. Upon completion of this review, DOE will notify NRC of the action it will take.

3. Upon acceptance of a request for assistance, DOE shall identify, package, transfer, receive, and/or store the radioactive material at a DOE or other appropriate facility; or contract with appropriately licensed firms for these services.

4. DOE will coordinate, through NRC, with the licensee and/or local authorities and other agencies, as appropriate, regarding the details of the recovery operations and provide information on progress and status.

5. DOE will take title of the radioactive material either at the material pickup location or at the designated receiving site, as determined on a case-by-case basis, or ensure title is transferred to appropriate parties contracted for services.

6. DOE may review procedures that NRC uses to determine: (1) that material is an imminent threat to the public health and safety; (2) that all available options for disposition of the material have been exhausted; and (3) that a request for DOE assistance with radioactive material is appropriate and in accordance with this MOU.

7. DOE will plan and budget, as appropriate, for its costs to provide for

reasonably expected requests under this agreement.

8. DOE shall utilize its field elements, contractors, laboratories, and facilities, and private industry, as required, in recovery and disposition operations, for the safe, timely, and efficient conduct of these operations. The use of these facilities is limited to those sites with appropriate capabilities and compliance with applicable regulations, as well as necessary funding. If such a site or necessary funds are not available, DOE will consult with NRC and/or other Federal and State agencies to determine if managing the material may be accomplished by other means.

C. Coordination Officers

Each agency shall designate an individual(s) who will serve as the respective coordination officer(s), or point(s) of contact (POC). The POCs will coordinate and facilitate actions required by their respective agencies. Additionally, they will establish and maintain a call list (names, phone, and fax numbers) of responsible persons for day-to-day contact on any matter related to this MOU, and shall provide this call list to each other, as requested and appropriate.

VII. Elements of Coordination

A. Information Exchange

Both agencies agree to exchange information with respect to relevant programs and lessons learned. The purpose of the exchanges is to provide expert technical assistance to both agencies and to assist either agency by reducing or eliminating duplication of effort. The sharing of information between DOE and NRC (and Agreement States as appropriate) will be exercised to the extent authorized by law (i.e. NRC and DOE directives, statutes, and regulations), and will be consistent with each agencies' missions.

Both agencies recognize the need to protect from public disclosure, data and information that are exchanged between them, which fall within the definition of trade secrets, and confidential commercial or financial information. Both agencies agree to exchange proprietary information in accordance with applicable regulations and their regulatory authority. If a request calls for a disclosure determination regarding proprietary information obtained from either agency, such as a Freedom of Information Act request or response to a Congressional inquiry—or either agency must comply with various regulatory or public information responsibilities—the agency responsible for the information will be promptly

notified, by the other agency, of the need for disclosure of the information. The responsible agency will make any needed contact with the submitter of the protected information and will accept the responsibility for evaluating the submitter's comments, before rendering the disclosure determination.

B. Sharing Other Information

DOE and NRC will also offer each other the opportunity to comment on regulations, regulatory guides, or other communications that refer to activities, policies, or regulations of the other agency, that are relevant to this agreement. If practicable, the documents will be provided for comment prior to issuance.

Either agency may request additional information, when such is deemed necessary to complete its mission.

VIII. Meetings

A. Annual Inter-Agency Meeting

The following are the offices and officers responsible for this agreement:

1. For the U.S. Nuclear Regulatory Commission: Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Mail Stop T8-A23, Washington, D.C. 20555; Telephone: (301) 415-7800.

2. For the U.S. Department of Energy: Deputy Assistant Secretary for Waste Management, Environmental Management, U.S. Department of Energy, Mail Stop 5B-040/FORS, Washington, D.C. 20585; Telephone: (202) 586-0307.

The DOE and NRC responsible officers, or their designated representatives, shall meet at least annually to evaluate the activities related to this MOU and make recommendations to agency heads on its effectiveness. DOE and NRC will host the meeting on alternating years.

B. Coordination Officers

Coordination officers, POCs, or their designated representatives, shall meet, on a semiannual basis, to discuss technical issues related to this MOU, review the status of actions underway or planned, discuss any problems or issues, and recommend necessary changes. DOE and NRC shall host the meeting on alternate dates.

IX. Other Laws and Matters

Nothing in this MOU shall be deemed to restrict, modify, or otherwise limit the application or enforcement of any laws of the United States with respect to matters specified herein, nor shall anything in the MOU be construed as modifying, restricting, or directing the existing authority of either agency.

Nothing in this MOU shall be deemed to establish any right nor provide a basis for any action, either legal or equitable, by any person or class or persons challenging a government action or a failure to act.

This MOU shall not be used to obligate or commit funds or as the basis for the transfer of funds.

X. Effective Date, Modification, and Termination of MOU

This MOU may be further implemented by supplementary agreements in which authorized representatives of DOE and NRC may further amplify or otherwise modify the policy or provisions in the memorandum or any of its supplements, provided that any material modifications of the provisions or any of its supplements shall be subject to the approval of the authorized signatories of this memorandum or their designated representatives.

This MOU will take effect when it has been signed and dated by the authorized representatives of DOE and NRC. It may be modified by mutual written consent, or terminated by either agency upon 60 days advance written notice. The agencies agree to reevaluate this MOU at least every five years, at which time either agency has the option of renewing, modifying, or terminating this MOU.

Approved and accepted for the U.S. Nuclear Regulatory Commission.

Carl J. Paperiello,
Director, Office of Nuclear Material Safety and Safeguards.

Dated: June 18, 1999.

Approved and accepted for the U.S. Department of Energy.

Mark W. Frei,
Acting Deputy Assistant Secretary for Waste Management, Environmental Management.

Dated: December 18, 1998.

[FR Doc. 00-344 Filed 1-6-00; 8:45 am]
BILLING CODE 7590-01-P

RAILROAD RETIREMENT BOARD

Proposed Collection; Comment Request

SUMMARY: In accordance with the requirement of Section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 which provides opportunity for public comment on new or revised data collections, the Railroad Retirement Board (RRB) will publish periodic summaries of proposed data collections.

Comments are invited on: (a) Whether the proposed information collection is necessary for the proper performance of the functions of the agency, including whether the information has practical

Dr. Ronald R. Bellamy
U.S. NRC
475 Allendale Road
King of Prussia, PA 19406

COPY

SUBJECT: COORDINATION OF DECOMMISSIONING ACTIVITIES WITH THE
NUCLEAR REGULATORY COMMISSION

Dear Dr. Bellamy:

This letter forwards information discussed in our teleconference on May 21, 1999 and states our understanding of the agreements that were reached during the teleconference. Consistent with our Memorandum of Understanding (Enclosure 1) with the Nuclear Regulatory Commission (NRC), we agreed to update our list of site coordinators for the Site Decommissioning Management Plan (SDMP) sites in the Commonwealth. The list of Pennsylvania Department of Environmental Protection (DEP) staff coordinators is enclosed (Enclosure 2). Included too is an updated list of our nuclear power station contacts. I would like to request that you update your list of site coordinators with their email addresses to allow us to make future information exchange as efficient as possible.

It is our understanding that DEP should use the NRC Site Coordinators for all information and documentation exchange between the two agencies. It will be the responsibility of the NRC Site Coordinators to disseminate the information to other members of the NRC as they feel appropriate.

It is our understanding that the DEP Central Office Coordinator identified on Enclosure 2 will receive all correspondence, and associated documentation and reports for each SDMP site along with the DEP Site Coordinator. The DEP Central Office Coordinator and the Site Coordinator will be promptly notified via email of any documentation that will be placed in the PDR, but not sent directly to them.

It is our understanding that a meeting between the NRC and DEP will be scheduled in early July to discuss the current status of SDMP sites in Pennsylvania.

Lastly, it will be the responsibility of the DEP Regional Radiation Protection Program Managers to coordinate the activities of other DEP Programs (i.e. Waste, Water, Air) that have the potential to affect activities at SDMP sites and to keep the NRC Site Coordinators informed of such activities.

I appreciate the time and effort expended by the NRC in working with DEP in regards to the SDMP sites located in Pennsylvania. I look forward to a continued good working relationship with you and your staff. If you need any additional information call me at 717-783-5403 or Robert Maiers at 717-783-8979.

Sincerely,

David J. Allard

c.c: David Hess, 16th Fl.
Denise Chamberlain, 16th Fl.
Terry Fabian, 16th Fl.
Charles Duritsa, SWRO
Michael Steiner, SCRO
Joseph Feola, SERO
Robert Maiers, 13th Fl.
Rich Janati, 13th Fl.
James Yusko, SWRO
Ivna Shanbaky, SERO
James Kopenhaver, SCRO
William Kirk, 13th Fl.

Bcc: Marjorie Hughes, 16th Fl.
Todd Wallace, 16th Fl.

**Department of Environmental Protection
Bureau of Radiation Protection Site Coordinators**

In addition to the Site Coordinators listed below, please send copies of correspondence to the Central Office Coordinator:

Robert Malers
Bureau of Radiation Protection
Rachel Carson State Office Building
P.O. Box 8469
Harrisburg, PA 17105-8469
malers.robert@dep.state.us

| SITE | COORDINATOR | ADDRESS | TELEPHONE NUMBER | FACSIMILE NUMBER |
|--|-------------|---|---------------------|---------------------|
| BWXT Operating Facility, Parks Township | James Yusko | DEP –Radiation Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 yusko.james@dep.state.pa.us | 412-442-4220 | 412-442-4303 |
| BWXT Shallow Land Disposal Area, Parks Township | James Yusko | DEP –Radiation Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 yusko.james@dep.state.pa.us | 412-442-4220 | 412-442-4303 |

Enclosure 2

| SITE | COORDINATOR | ADDRESS | TELEPHONE NUMBER | FACSIMILE NUMBER |
|--|------------------|---|---------------------|---------------------|
| Cabot Corporation, Reading and Revere | Ivna Shanbaky | DEP -Radiation Protection Suite 6010, Lee Park 555 North Lane Conshohocken, PA 19428-2233 shanbaky.ivna@dep.state.pa.us | 610-832-6032 | 610-832-6260 |
| Kiski Valley Water Pollution Control Authority, Leechburg * | James Yusko | DEP -Radiation Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 yusko.james@dep.state.pa.us | 412-442-4220 | 412-442-4303 |
| Molycorp, Washington | James Yusko | DEP -Radiation Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 yusko.james@dep.state.pa.us | 412-442-4220 | 412-442-4303 |
| Molycorp, York | James Kopenhaver | DEP -Radiation Protection 909 Elmerton Avenue Harrisburg, PA 17110-8200 kopenhaver.james@dep.state.pa.us | 717-705-4891 | 717-705-4890 |

Enclosure 2

| SITE | COORDINATOR | ADDRESS | TELEPHONE NUMBER | FACSIMILE NUMBER |
|---|------------------|---|---------------------|---------------------|
| Pesses Company/METCOA, Pulaski | James Yusko | DEP -Radiation Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 yusko.james@dep.state.pa.us | 412-442-4220 | 412-442-4303 |
| Safety Light Corporation, Bloomsburg | James Kopenhaver | DEP -Radiation Protection 909 Elmerton Avenue Harrisburg, PA 17110-8200 kopenhaver.james@dep.state.pa.us | 717-705-4891 | 717-705-4890 |
| Westinghouse Electric Corporation, Waltz Mills | James Yusko | DEP -Radiation Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 yusko.james@dep.state.pa.us | 412-442-4220 | 412-442-4303 |
| Whittaker Corporation, Greenville | James Yusko | DEP -Radiation Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 yusko.james@dep.state.pa.us | 412-442-4220 | 412-442-4303 |

Enclosure 2

| SITE | COORDINATOR | ADDRESS | TELEPHONE NUMBER | FACSIMILE NUMBER |
|----------------------------------|--------------|--|---------------------|---------------------|
| Permagrain Products, Quehanna | William Kirk | Bureau of Radiation Protection P.O. Box 8469 Harrisburg, PA 17105-8469 kirk.william@dep.state.pa.us | 717-783-9730 | 717-783-8965 |

* Not an SDMP site

Enclosure 2

**Department of Environmental Protection
Bureau of Radiation Protection
Nuclear Power Plant Engineers**

Central Office Coordinator:

Rich Janatl
Bureau of Radiation Protection
Rachel Carson State Office Building
P.O. Box 8469
Harrisburg, PA 17105-8469
janatl.rich@dep.state.pa.us

| SITE | COORDINATOR | ADDRESS | TELEPHONE NUMBER | FACSIMILE NUMBER |
|------------------------|----------------|--|---------------------|---------------------|
| TMI** Susquehanna** | Stan Maingl | Bureau of Radiation Protection P.O. Box 8469 Harrisburg, PA 17105-8469 maingl.stan@dep.state.pa.us | 717-783-8549 | 717-783-8965 |
| Beaver Valley** | Michael Murphy | Bureau of Radiation Protection P.O. Box 8469 Harrisburg, PA 17105-8469 murphy.michael@dep.state.pa.us | 717-783-9734 | 717-783-8965 |

Enclosure 2

| SITE | COORDINATOR | ADDRESS | TELEPHONE NUMBER | FACSIMILE NUMBER |
|------------------------------|-------------|---|---------------------|---------------------|
| Limerick** Peach Bottom** | David Ney | Bureau of Radiation Protection P.O. Box 8469 Harrisburg, PA 17105-8469 ney.david@dep.state.pa.us | 717-783-9492 | 717-783-8965 |

** Pennsylvania Nuclear Power Stations

Enclosure 2

COOPERATIVE AGREEMENT
BETWEEN
THE UNITED STATES DEPARTMENT OF THE ARMY
AND
THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL
PROTECTION

THIS COOPERATIVE AGREEMENT ("Agreement") is entered into this 13 Day of Nov, 2002, by and between the UNITED STATES DEPARTMENT OF THE ARMY ("Government"), represented by the Grants Officer for the United States Army Engineer Division, Great Lakes and Ohio River, and the PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION ("Pennsylvania DEP"), represented by the Deputy Secretary for Air, Land Recycling and Waste Management, and Radiation Protection.

INTRODUCTION:

In 1974, the United States Department of Energy ("DOE") initiated the Formerly Utilized Sites Remedial Action Program ("FUSRAP"). The purpose of the FUSRAP is to clean up contaminated sites throughout the United States where work was performed as part of the United States' early atomic energy program. The Energy and Water Development Appropriations Act of 1998 (Public Law 105-62) transferred responsibility for the administration and execution of the FUSRAP to the United States Army Corps of Engineers ("USACE").

The Government is authorized to enter into a cooperative agreement with the Pennsylvania DEP for activities associated with remediation at FUSRAP sites (Section 3 of the Rivers and Harbors Appropriations Act of August 11, 1888, 33 U.S.C. section 622; 31 U.S.C. sections 6304-6305).

Pennsylvania DEP administers the laws of Pennsylvania relating to air and water quality, hazardous, solid and infectious wastes, hazardous substances, construction and demolition debris, sewage, industrial and other wastes, radioactive materials, sources of radiation and low level radioactive waste and the protection of human health and the environment, under Purdon's Statutes 35 P.S. Sections 4001 et seq, 6018.101 et seq, 6019.1 et seq, 6020.101 et seq, 6021.101 et seq, 7110.101 et seq, and 7130.101 et seq. Pennsylvania DEP is authorized to enter into this Agreement pursuant to 35 P.S. § 7110.301(c)(10)(11).

02-2346

By entering into this Agreement, Pennsylvania DEP agrees to provide reimbursable services as described under Article I of this Agreement. The Government agrees to reimburse Pennsylvania DEP for reimbursable services provided by Pennsylvania DEP in accordance with the terms and conditions of this Agreement.

ARTICLE I REIMBURSABLE STATE SERVICES

A. Coverage

This Agreement provides the terms and conditions for payment of costs associated with the provision of services by Pennsylvania DEP to the Government's FUSRAP program within the Buffalo and Pittsburgh Districts of the USACE. This Agreement only covers Pennsylvania DEP activities directly related to the investigation and remediation of FUSRAP material at the current FUSRAP sites in the Commonwealth of Pennsylvania, as well as any other sites and their vicinity properties in the Commonwealth of Pennsylvania designated as FUSRAP sites in the future by the Government. This initial Agreement shall be effective from the date as set forth above until December 31, 2002, with the option to extend annually on a calendar year basis, or until this Agreement is otherwise terminated.

B. Reimbursable Services

Services that qualify for reimbursement under this Agreement include the following types of assistance provided by the Commonwealth of Pennsylvania (Pennsylvania DEP) commencing at the time that the Government, represented by USACE, becomes responsible for the sampling and assessment of a site in the Commonwealth and continuing through response actions and operation and maintenance, as well as any other cleanup activities that are funded by FUSRAP appropriations. In the performance of the activities described herein, Pennsylvania DEP shall provide personnel who are suitably trained, experienced, and possess the necessary skills and capabilities to perform the duties assigned to them, including training, experience, and capability in hazardous, toxic and radiological waste management. Pennsylvania DEP and the Government will consult with each other regarding the priorities to be assigned to the services to be provided by Pennsylvania DEP and funded by the Government under this Agreement.

1. Timely technical review, comments and recommendations shall be performed for all documents or data in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. sections 9601-9675, the Atomic Energy Act of 1954, as amended (Public Law 83-703, 68 Stat. 919), the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300, and applicable Pennsylvania statutes and regulations. The universe of documents includes, but is not limited to:

- a. Remedial Investigation/Feasibility Study ("RI/FS").
- b. Proposed Plan.
- c. Record of Decision ("ROD").

d. Work Plan - Review the plan and make comments, e.g., relative to data gaps or further investigation needs, if applicable.

e. Designs - Review any preliminary or intermediate design plans to ensure that technical requirements of the project have been addressed and to determine if the final design will provide an operable and usable remediation project.

f. Operation and Maintenance Plan.

g. Quality Assurance Project Plan.

h. Site Safety Plan.

i. Removal assessment.

j. Removal draft and final design.

k. Removal sampling and analysis plans.

l. Removal decision documents.

m. Community Relations Plans.

n. Waste Disposal Plans and proposed disposal facility licenses/permits.

o. Characterization Reports.

p. Final Status Surveys.

q. Risk Assessments.

The Government will provide Pennsylvania DEP with advance notice of all document review requirements by: furnishing a copy of the projected schedule for each calendar year no later than May 15th of the previous calendar year; providing updates if the schedule changes; and including Pennsylvania DEP in discussions regarding the initial drafting of documents supporting or proposing site cleanup criteria. Except for documents supporting or proposing site cleanup criteria, Pennsylvania DEP will be given thirty (30) calendar days from document receipt to provide comments, unless that time is shortened or lengthened by mutual agreement of the parties. Pennsylvania DEP will be given up to sixty (60) calendar days from document receipt to review documents written to support or propose numeric criteria to be applied in site review and comment. The Government will work closely with Pennsylvania DEP through partnering meetings and other communications to give Pennsylvania DEP both the information and support necessary to maintain the schedule.

2. Identification and explanation of Pennsylvania's applicable or relevant and appropriate requirements ("ARARs") and, as appropriate, other pertinent advisories, criteria, or guidance to be considered ("TBCs"). Pennsylvania's ARARs and TBCs must be identified in a timely manner in accordance with the NCP.

3. Participation in any of the following meetings regarding Government response actions:

- a. Preconstruction conferences
- b. Prefinal inspections
- c. Final inspections
- d. Value engineering studies
- e. Partnering meetings

The Government will provide Pennsylvania DEP a minimum of five (5) business days advance notice of meetings to be held in the Commonwealth of Pennsylvania and a minimum of thirty (30) calendar days advance notice for meetings to be held outside the Commonwealth of Pennsylvania.

4. Participation in activities designed to insure that the Government's response activities shall be conducted in compliance with CERCLA and the NCP.

5. Oversight of the Government's site characterization, sampling and monitoring; waste packaging, transportation and in-state disposal or reuse; and site remediation.

6. Preparation of proposals and administration of this Agreement, including the provisions for reimbursement of Pennsylvania DEP for services associated with the oversight of the FUSRAP activities described herein.

7. Participation with the Government and other parties in the conduct of public education and community relations. The Government will provide Pennsylvania DEP with at least fifteen (15) business days advance notice of such public meetings or activities. Such public education and community relations activities include:

- a. Reviewing mailing lists of interested parties for FUSRAP sites and up-to-date fact sheets for distribution to interested parties. Mailing lists will include parties identified as a result of initial contacts, in addition to legislators, congressional representatives, local officials, environmental groups, and other interested parties.

- b. Communicating Pennsylvania DEP's position for community updates during the project period, via newsletters, public meetings, press releases, or other media, as determined by the Community Relations Plan, and providing responses to inquiries regarding FUSRAP sites when requested.

- c. Assisting the Government in responding to comments received from the public during the public comment period pertaining to site issues within the knowledge and purview of Pennsylvania DEP.

C. Non-reimbursable Services

1. The Government shall not reimburse Pennsylvania DEP under this Agreement for the expense of non-site-specific training programs, professional seminars, or conferences (i.e., programs, conferences or seminars that are not directly related to FUSRAP site activities) unless specifically approved in advance by the Government.

2. The Government shall not reimburse Pennsylvania DEP under this Agreement for formal enforcement activities, i.e., notices of violation, administrative enforcement orders and litigation by Pennsylvania DEP to seek sanctions against the Government for violations of state laws or regulations.

3. No funds provided hereunder shall be used to support Pennsylvania DEP information gathering or activities for FUSRAP sites outside (the State) of Pennsylvania. However, subject to prior approval of the Government, Pennsylvania DEP's review of sites selected by the Government for the disposal of FUSRAP material which was generated within the Commonwealth and which is subject to this Agreement, shall be otherwise reimbursable in accordance with the terms and conditions of this Agreement.

ARTICLE II REIMBURSEMENT OF STATE COSTS

A. Reimbursement by the Government

1. Subject to the appropriation of funds by the Congress of the United States and the receipt of such funds, the Government shall reimburse Pennsylvania DEP up to the total amount identified in advance by Pennsylvania DEP as their estimated expenses for appropriate activities of Pennsylvania DEP for the initial period covered by this Agreement, and continuing until termination of this Agreement, in support of the Government's FUSRAP work, as described in Article I, provided the support is reasonable, allowable, and allocable to the appropriate sites. The costs shall include only items of expense that are properly chargeable, including but not limited to labor, materials, transportation, insurance, overhead charges, supervision, surveys, sample collection and analysis. All original time cards or payrolls, material records, and accounts for all charges and expenditures by Pennsylvania DEP shall be available at all reasonable times, to allow the Government to check and audit the records of Pennsylvania DEP. So far as practicable, separate records shall be maintained by Pennsylvania DEP on all items and accounts that will constitute the basis for Pennsylvania DEP's claimed costs.

2. During the fiscal year, Pennsylvania DEP shall provide to the Government quarterly written reports, by the last day of the month following the end of the quarter, that fairly and accurately summarize Pennsylvania DEP's activities with regard to the services provided under this Agreement, including an estimate of costs incurred.

3. A quarterly reimbursement request for each quarter of the calendar year will be provided to the Government by Pennsylvania DEP by the 15th day following each quarter (i.e., April 15, July 15, October 15, and January 15). The requests will be submitted on Standard Forms 269A and 270. The reports on costs incurred shall identify actual costs directly related to each FUSRAP site, plus the share of joint costs allocated to each site.

4. Payment of eligible Pennsylvania DEP costs for services provided under this Agreement must comply with all applicable Federal procurement and auditing requirements. Procedures for Pennsylvania DEP reimbursement through cooperative agreements are as described in Office of Management and Budget ("OMB") Circulars A-102, A-87, A-133, and Article V of this Agreement. As Pennsylvania DEP submits requests for reimbursement to the Government on a quarterly basis, the Government shall process the requests and transfer funds in accordance with OMB Circular A-102. Allowable costs shall be determined in accordance with this Agreement.

B. Estimates of Reimbursable Costs

1. The Government shall provide Pennsylvania DEP with a project schedule for the upcoming calendar year by May 15 of the prior year for use by Pennsylvania DEP in drafting its reimbursement request.

2. Pennsylvania DEP shall provide to the Government its estimate of reimbursable costs anticipated to be incurred by Pennsylvania DEP for the upcoming calendar year on or before September 30th of the current calendar year. After a review of the estimate and finding it to be appropriate for the expected amount of work planned by the Government for the next calendar year, the Grants Officer shall formally extend the agreement for the following calendar year. The formal extension shall be provided to the Pennsylvania DEP in writing by December 1st of the calendar year preceding the one that is the subject of the estimate. The Government shall not be responsible for the payment of any expenses in excess of the yearly estimate unless subsequent modifications are submitted by Pennsylvania DEP and agreed to by the Government Grants Officer. The estimate for Calendar Year 2002 is at Appendix A; this estimate will be updated annually.

3. Pennsylvania DEP may submit modifications to estimates in writing to: District Engineer, U.S. Army Engineer District, Pittsburgh; Attn: CELRP-PM (FUSRAP Project Manager) 1809 Wm. S. Moorhead Federal Building; 1000 Liberty Avenue; Pittsburgh, PA 15222-4186. All modifications must be approved in writing by the Government's Grants Officer in advance of payment.

C. Other Agreements

This Agreement is the mechanism for payment of the costs incurred by Pennsylvania DEP in providing the services described in Article I. Full payment of Pennsylvania DEP costs pursuant to this Agreement constitutes final settlement of any claims the Commonwealth may have for performance of the services described in Article I for the applicable quarterly request for reimbursement. Any funds disbursed to Pennsylvania DEP by the Government under the terms of this Agreement shall serve to reimburse Pennsylvania DEP for FUSRAP activities only, and any equipment or machinery acquired by Pennsylvania DEP using said FUSRAP funds shall not be used for any other project, without the express approval of the Government.

D. Government Funding

1. The Government will seek timely and sufficient funding through the Government budgetary process to perform its FUSRAP responsibilities and meet its commitments under this

Agreement, including reimbursement of Pennsylvania DEP for the services described in Article I, subject to the conditions and limitations set forth in this Agreement.

2. If it appears that sufficient funds will not be available to the Government to reimburse Pennsylvania DEP for the FUSRAP support planned for a coming calendar year, the Government will so inform Pennsylvania DEP prior to the beginning of that calendar year. The Government and Pennsylvania DEP will meet to discuss a revised list of FUSRAP support activities, with a revised cost estimate, for that calendar year. If the Government and Pennsylvania DEP agree upon a revised list of FUSRAP support activities and a revised cost estimate, the revised list and revised cost estimate shall be signed by both parties and become a modification to this Agreement, in accordance with Article VII of this Agreement, effective for only the applicable calendar year.

E. Anti-Deficiency Act

Nothing in this Agreement shall be interpreted to require any obligation or payment of funds in violation of the Anti-Deficiency Act (31 U.S.C. section 1341).

ARTICLE III INTERAGENCY COMMUNICATIONS

A. Position of the Commonwealth of Pennsylvania

The Government shall be entitled to rely on the guidance provided and positions communicated by the Pennsylvania DEP employees named in an "authorized persons" list. That list shall be provided to the Government by Pennsylvania DEP within thirty (30) calendar days after the effective date of this Agreement, and shall be updated as necessary. Pennsylvania DEP will provide the Government copies of any Pennsylvania DEP positions regarding particular matters related to this Agreement that are provided to third parties.

B. Press Releases

Pennsylvania DEP and the Government will provide each other with at least two (2) business days advance notification of any press releases concerning activities covered by this Agreement.

C. Points of Contact

1. Pennsylvania DEP's general point of contact for administration of this Agreement and communication concerning technical issues and activities under this Agreement shall be David Allard, Director, Bureau of Radiation Protection, Pennsylvania DEP, P.O. Box 8469, Harrisburg, PA, 17105-8469, 717-787-2480. Pennsylvania DEP's site specific point of contact for technical issues under this Agreement shall be Robert Maiers, Chief-Decommissioning Section, Bureau of Radiation Protection, Pennsylvania DEP, P.O. Box 8469, Harrisburg, PA, 17105-8469, 717-783-8979.

2. The Government's general point of contact for administration of this Agreement and communication concerning issues and activities under this Agreement shall be James Karsten, FUSRAP Program Manager, USAED, Buffalo, 1776 Niagara Street, Buffalo, New York, 14207;

(716) 879-4245. The Government's site-specific point of contact for technical issues under this Agreement shall be Dilip Kothari, Project Manager, Engineering Division, Pittsburgh District, U.S. Army Corps of Engineers, 1000 Liberty Avenue, Pittsburgh, Pa. 15222; (412)-395-7314.

ARTICLE IV DISPUTE RESOLUTION

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation.

- A. The procedures of this Article shall apply to any dispute arising under this Agreement, or any activity, action, function, decision or responsibility referenced in this Agreement.
- B. Following the occurrence of circumstances giving rise to a dispute, the parties shall make reasonable efforts to informally resolve the dispute. If resolution cannot be achieved informally within thirty (30) calendar days, either party may elevate the dispute for formal resolution pursuant to paragraph C of this Article.
- C. Within thirty (30) calendar days following the occurrence of circumstances giving rise to a dispute, either Party may initiate formal dispute resolution under this paragraph. To initiate formal dispute resolution, a party shall submit to the other party a written notification of the dispute. The written notification of the dispute shall specify:
 - 1. the nature of the dispute;
 - 2. the activity, action, function, decision or responsibility affected by the dispute;
 - 3. the disputing party's position with respect to the dispute; and
 - 4. the information the disputing party is relying on to support its position.
- D. Within fifteen (15) calendar days of written notification of a dispute, the points of contact and designated representatives of the parties shall meet and attempt to resolve the dispute.
- E. If the points of contact and designated representatives of the parties are unable to resolve the dispute within fifteen (15) calendar days of receipt of the written notification of dispute, either Party may submit a written statement of the dispute to the signatories of this Agreement or their successors in office. Within thirty (30) calendar days of submittal of the written statement of dispute, or as soon thereafter as practicable, the signatories of this Agreement (or appropriate designees) or their successors in office (or appropriate designees) shall meet in order to resolve the dispute.
- F. The parties may agree to suspend the activity, action, function, decision or responsibility affected by the circumstances that gave rise to the dispute until the dispute is resolved. This dispute resolution process may be used to resolve site-specific disputes, provided this dispute resolution

process does not conflict with a dispute resolution process specified in an administrative order, judicial consent decree or other legally binding document governing activities at a particular facility or site.

- G. The final resolution of any dispute elevated for formal resolution pursuant to paragraph C. of this Article shall be memorialized in writing and acknowledged by the signatures of the points of contact for each party. The parties shall incorporate and implement such resolution as part of the activity, action, function, decision or responsibility affected by the circumstances that gave rise to the dispute. Nothing in this agreement shall operate to preclude either party from pursuing any other remedy at law or equity to ensure faithful performance in accordance with this agreement.

ARTICLE V RECORDS AND REPORTS

A. Financial Management Systems

In order to facilitate and to accommodate the terms and conditions of Article II, not later than sixty (60) calendar days after the effective date of this Agreement, the Government shall review Pennsylvania DEP's current procedures for keeping books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement. The Government shall consult with Pennsylvania DEP regarding whether Pennsylvania DEP's current administrative procedures and financial management systems meet, as appropriate, the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 C.F.R. Part 33.20. The Government and Pennsylvania DEP shall maintain such books, records, documents, and other evidence in accordance with these procedures and for a minimum of three years after the termination of this Agreement and resolution of all relevant claims arising therefrom. To the extent permitted under applicable Federal laws and regulations, the Government and Pennsylvania DEP shall each allow the other to inspect such books, documents, records, and other evidence at reasonable times and places as the parties shall mutually agree upon.

B. Single Audit Act

Pursuant to 32 C.F.R. section 33.26, Pennsylvania DEP is responsible for complying with the Single Audit Act of 1984, 31 U.S.C. sections 7501-7507, as implemented by OMB Circular No. A-133 and Department of Defense Directive 7600.10. Upon request of Pennsylvania DEP and to the extent permitted under applicable Federal laws and regulations, the Government shall provide to Pennsylvania DEP and independent auditors any information necessary to enable an audit of Pennsylvania DEP's activities under this Agreement. The costs of any non-Federal audits performed in accordance with this paragraph shall be allocated in accordance with the provisions of OMB Circulars A-87 and A-133.

C. Other Audits

In accordance with 31 U.S.C. section 7503, the Government may conduct audits in addition to any audit that Pennsylvania DEP is required to conduct under the Single Audit Act. Any such

Government audits shall be conducted in accordance with Government Auditing Standards and the cost principles in OMB Circular No. A-87 and other applicable cost principles and regulations.

ARTICLE VI FEDERAL AND STATE ANTI-DISCRIMINATION LAWS

In the exercise of their respective rights and obligations under this Agreement, Pennsylvania DEP and the Government agree to comply with all applicable Federal and State laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. section 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulations 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army".

ARTICLE VII MODIFICATION

The terms of this Agreement may be modified at any time by mutual agreement of the parties. If a party requests the Agreement to be modified but the other party does not concur, a party may invoke the dispute resolution process in Article IV. If no resolution is reached after the matter is referred to the signatories of this Agreement or their successors in office, the Agreement shall not be modified.

ARTICLE VIII RELATIONSHIP OF PARTIES

A. No Agency

In the exercise of their respective rights and obligations under this Agreement, the Government and Pennsylvania DEP each act in an independent capacity, and neither is to be considered the officer, agent, nor employee of the other.

B. No Waiver

1. This Agreement does not diminish the authority of Pennsylvania DEP to fully carry out its statutory and regulatory responsibilities or exercise its authorities under state and federal law, or the right of the Government to raise any defenses available under law in the case of any enforcement action brought by the Commonwealth, whether in an administrative or a judicial proceeding. Nothing in this Agreement relieves or alters any responsibility, commitment, or duty of the Government under any existing or future administrative or judicial order, or in any way limits or restricts any right or authority of the Commonwealth to enforce such order.

2. In the exercise of their respective rights and obligations under this Agreement, neither party shall, without the consent of the other party, provide any contractor with a release that waives or

purports to waive any rights such other party may have to seek relief or redress against such contractor either pursuant to any cause of action that such other party may have or for violation of any law.

ARTICLE IX OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress shall be admitted to any share or part of this Agreement, nor to any benefit that may arise therefrom.

ARTICLE X CONFIDENTIALITY

To the extent permitted by the laws and regulations applicable to each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party. However, nothing in this Agreement shall be construed to -prohibit the parties from using information developed or obtained via activities covered by this Agreement in furtherance of their statutory rights, duties or obligations.

ARTICLE XI TERMINATION

A. Notification

This Agreement may be terminated by either party for any reason upon written notice, signed by the signatories to this Agreement or their successors in office, effective ninety (90) calendar days thereafter. After receiving a notice of termination, a party may invoke the dispute resolution process in Article IV.

B. Expiration Date

Unless terminated at an earlier date by the parties, or otherwise extended by the parties, this Agreement shall expire on December 31, 2002. This Agreement may be extended annually by mutual agreement of the parties.

C. Continuing Provisions

The provisions of this Agreement that require performance after the expiration or termination of this Agreement shall remain in force notwithstanding the expiration or termination of this Agreement.

ARTICLE XII NOTICES

A. Addresses

Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and either delivered personally or mailed by first-class, registered, or certified mail, as follows:

If to Pennsylvania DEP:

David Allard
Director
Bureau of Radiation Protection
Pennsylvania DEP
P.O. Box 8469
Harrisburg, PA 17105-8469

If to the Government:

District Engineer,
U.S. Army Engineer District, Pittsburgh
Attn: CELRP-ED-PM (FUSRAP Project Manager)
1809 Wm. S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

B. Changes

A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

THE PARTIES HAVE EXECUTED this Agreement to become effective as of the date first set forth, above.

THE UNITED STATES DEPARTMENT OF THE ARMY

PENNSYLVANIA DEPARTMENT OF

ENVIRONMENTAL PROTECTION

BY: Susan M. Erwin
SUSAN ERWIN,
U.S. Army Corps of Engineers
Grants Officer

BY: David J. Alford 9-9-02
David J. Alford, Deputy
Secretary for the Office of Air, Land
Recycling and Waste Management and Radiation
Protection

Date:

Date: Nov. 13, 2002

Approved as to form and legality:

Michael D. Bedinowski
Chief Counsel, Pennsylvania
Department of Environmental
Protection

Scott R. [Signature] 09/30/02
Office of General Counsel

(APPROVED PER OAG MEMO
DATED 10/10/02)

Office of the Attorney General


Appendix A

| Pennsylvania Department of Environmental Protection Estimate of Reimbursable Expenses for Parks Township Shallow Land Disposal Area (SLDA) Calendar Year 2002* | | | |
|--|--------------------|-------------|------------------|
| Activity | Total DEP Hours | Hourly Rate | Total |
| Review and comment on Data Review and Gap Analysis Report; July, 2002 | 80 | \$50.00 | \$4000.00 |
| Preparation and Participation in Public and Technical Meeting(s), March, 2002 and August, 2002 | 100 | \$50.00 | \$5000.00 |
| Total Reimbursable Expenses Estimate for Calendar Year 2002 | | | <u>\$9000.00</u> |

* This estimate of reimbursable expenses for calendar year 2002 is based upon information provided by Dilip Kothari, USACE Project Manager for Parks Township SLDA.

CERTIFICATE OF LEGAL REVIEW

The Cooperative Agreement between The United States Department of the Army and The Pennsylvania Department of Environmental Protection for reimbursable services in connection with the Commonwealth of Pennsylvania has been reviewed by the Office of Counsel, U.S. Army Engineer District, Pittsburgh, and has been determined to be legally sufficient.



CORNELIUS W. PURCELL
District Counsel

Date: 10/30/02

MEMORANDUM FOR THE EXTENSION OF COOPERATIVE AGREEMENT
BETWEEN THE UNITED STATES DEPARTMENT OF THE ARMY AND THE
PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

This Memorandum of Agreement is entered into this 27th day of October, 2003 between the United States Department of the Army ("Government") represented by the Grants Officer for the United States Army Engineer Division, Great Lakes and Ohio River, and the Pennsylvania Department of Environmental Protection ("Pennsylvania DEP"), represented by the Director, Bureau of Radiation Protection..

WHEREAS, the parties hereto entered into a Cooperative Agreement on the 13th day of November 2002, whereby Pennsylvania DEP agreed to provide certain reimbursable services, as described in Article 1 thereto, for the investigation and remediation of FUSRAP sites located within the Commonwealth; and

WHEREAS, Article XI-B of that Agreement provides that the Agreement, unless otherwise terminated or extended by the parties thereto, shall expire on December 31, 2002; and

WHEREAS, the Agreement was extended on December 30, 2002 by mutual agreement of the parties hereto, until December 31, 2003; and

WHEREAS, Pennsylvania DEP has stated a desire to extend the Agreement until December 31, 2004; and

WHEREAS, Pennsylvania DEP has provided an estimate of reimbursable expenses under this Agreement for calendar year 2004 in the total amount of \$16,200.00.

NOW, THEREFORE, the afore-mentioned Cooperative Agreement is hereby modified as follows:

1. In accordance with Article XI-B, the parties agree to extend the term of the Cooperative Agreement until midnight, December 31, 2004, Eastern Standard Time.
2. All other terms and conditions of the said Agreement shall continue in full force and effect.

THE UNITED STATES
DEPARTMENT OF THE ARMY

Susan M. Erwin
SUSAN M. ERWIN, Grants Officer
U.S. Army Corps of Engineers

Date:

PENNSYLVANIA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

David J. Allard
DAVID J. ALLARD, Director
Bureau of Radiation Protection

Date:

10/14/03

AGENCY REIMBURSEMENT AGREEMENT

Project Title: "National Orphan Radioactive Material Program"

This AGREEMENT is made and entered into by and between the Conference of Radiation Control Program Directors, Inc. (CRCPD), 205 Capital Avenue, Frankfort, KY 40601, and the Pennsylvania Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, Pennsylvania, 17105-2063.

Recitals

Radioactive material becomes an "orphan" and a candidate for CRCPD financial assistance when:

- the possessor of such material cannot pay for the proper disposition of the material, or
- the individual or firm became the possessor of the material inadvertently, and should not be liable for such material. Examples of this circumstance are:
 - an individual or firm, not holding a radioactive material license, comes in possession of a radioactive material in the course of business, and
 - an individual or firm that is licensed to possess radioactive material, but comes in possession of radioactive material not authorized by the license, or
- abandoned radioactive material has been taken into custody, with no traceability to the owner.

Orphan radioactive material poses a potential public health threat. Such material for which appropriate action is not taken for disposition could, over a long period of storage by the possessor of such material, result in radiation exposure to individuals close to the material and/or result in the spread of radioactive contamination to the environment.

Purpose

The overall purpose of this agreement is to financially assist, through the cooperation of state radiation control programs, persons that do not have sufficient funding or who should not be held liable to fund the safe disposition of orphan radioactive material.

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, the parties agree as follows:

Article I Definitions

"Agreement" means this agreement.

"Agency" means the Pennsylvania Department of Environmental Protection.

"Company" means a person with an Agreement with the Agency to provide disposition of orphan radioactive material or to assist with that disposition.

"CRCPD" means the Conference of Radiation Control Program Directors, Inc.

63-2096

"Person" means any individual, corporation, partnership, firm, association, public or private institution, group, or Agency, but shall not include federal government agencies.

Article II Objectives

The specific objective of this program is for CRCPD to financially assist in the disposition of orphan radioactive material.

Article III Responsibilities of the Agency

3.1 Procurement Procedures

The Agency hereby assures and represents to CRCPD its authority to enter into an Agreement to accept reimbursement for those costs contemplated hereunder. The Agency will follow and apply their state procurement rules and regulations to assure that each Company is qualified, licensed as appropriate, and selected at a competitive cost. In the event that competitive bidding is not employed, the Agency shall notify the CRCPD that competitive bidding was not used for the service, with an explanation as to why such competitive bidding was not employed in the selection process to assure the lowest reasonable cost.

3.2 Request for Financial Assistance

The Agency will request a written commitment from CRCPD to reimburse the Agency for the cost(s) incurred in payment to vendors for the successful completion of the safe disposition of the orphan radioactive material. The letter of request shall contain the following:

- The radionuclides and radioactivities.
- The type and description of each device involved, if applicable.
- The manufacturer and serial number of each device, if applicable.
- The estimated cost of the proposal.
- An estimate of any other anticipated costs to carry out this Agreement.

3.3 Program Implementation

Upon receipt of a written commitment from the CRCPD to honor the request of the Agency, the Agency shall take the necessary steps for the disposition of the orphan radioactive material. Upon completion of such disposition, the Agency shall, by letter, notify the CRCPD that the orphan material(s) has been disposed of at a licensed disposal facility or transferred to another licensed recipient, and that such disposal or transfer has been in accordance with the Agency's rules and regulations. The Agency shall submit a single invoice, with supporting documentation reflecting payments to vendors, for the requested reimbursement.

Article IV Responsibilities of the CRCPD

4.1 CRCPD will be acting solely as a cost reimbursement source, and will not be responsible or liable for the identification and/or relocation of orphan radioactive material, and shall not in any way arrange for, manage or direct the identification and/or relocation of such material.

4.2 The Agency agrees to ensure that its contractors reimburse, indemnify and hold CRCPD harmless from any and all claims, causes of action, damages, and other liabilities (administrative and/or civil), and costs incurred (including reasonable attorney's fees) that might be made against or imposed upon CRCPD as a result of the work performed by the contractor under its agreement with the agency.

4.3 CRCPD will only consider funding the disposition of the orphan material that has been identified and recommended for funding by the Agency.

4.4 Each Agreement for disposal, relocation or associated service shall be between the Agency and the Company providing the service. CRCPD shall not be a party to that Agreement.

4.5 Upon the request of the Agency, and at the sole discretion of the CRCPD, and provided the estimated costs are deemed reasonable, CRCPD will, pending the availability of funds, issue a commitment letter to the Agency committing to reimburse the Agency to provide the disposition service. The commitment letter will state a maximum amount that CRCPD will reimburse the Agency for the service identified. CRCPD shall not have any responsibility or liability for the relocation/disposition of the orphan material.

4.6 Upon the successful completion of the service, and upon receipt of the Agency's written notification that the orphan radioactive material has been disposed of, or transferred to a licensed recipient, in accordance with the Agency's rules and regulations, and upon receipt of an invoice from the Agency, CRCPD will reimburse the Agency, not to exceed the maximum amount identified in the CRCPD's letter of commitment.

4.7 CRCPD will maintain records in accordance with its record retention policy relating to all transactions performed under this project.

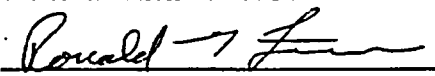
Article V Term

5.1 This agreement will expire twenty-four (24) months from its effective date.

Article VI Termination of Agreement

Either party may terminate this Agreement upon notification of the other party at least 30 days prior to such termination. Any funding commitment made by CRCPD prior to termination will be honored.

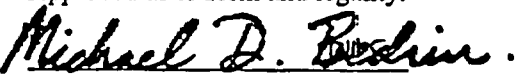

Nicholas A. DiPasquale, Deputy Secretary, ARRP
Pennsylvania Department of Environmental Protection


Ronald G. Fraass
Executive Director
Conference of Radiation Control
Program Directors, Inc.

12/29/03
Date

25 NOV 2003
Date

Approved as to form and legality:


Chief Counsel, PA DEP


Office of the PA Attorney General

**IMPLEMENTING PROCEDURES-SUBAGREEMENT I
PERTAINING TO LOW-LEVEL RADIOACTIVE WASTE PACKAGE
AND TRANSPORTATION INSPECTIONS
BETWEEN THE COMMONWEALTH OF PENNSYLVANIA AND THE NRC**

I. TRAINING

A. Pennsylvania staff attendance at NRC Sponsored Courses

1. Pennsylvania staff may attend NRC sponsored training courses when mutually agreed upon by Pennsylvania and NRC.
2. Attendance at any particular course will be scheduled on a space available basis.
3. Staff applying for attendance must fulfill any necessary course prerequisites.
4. Attendance will normally be limited to 1-2 individuals at any one particular course.
5. Pennsylvania will pay any transportation and per diem expenses except for courses offered in connection with the Agreement State Program where NRC pays for travel and per diem of State personnel selected to attend.

B. On-the-Job Training

1. On-the-job training will be provided to the Pennsylvania staff in the conduct of inspections to determine compliance with the requirements in 10 CFR Parts 20, 61 and 71.
2. The training accompaniments will normally be limited to NRC licensees located in the Commonwealth of Pennsylvania.
3. The training accompaniments will follow the protocol set out in Mr. Haynes' November 5, 1982 letter to Mr. Gerusky. Under the protocol, the activities of the individual accompanying the NRC inspector will be limited to observation and familiarization with plant activities and the NRC inspection process. The NRC inspector will be responsible for initiating action to correct any program deficiencies identified during the inspection through NRC's normal inspection and enforcement process.

4. Commonwealth of Pennsylvania staff accompanying the NRC inspector will normally be limited to two persons - the senior staff member responsible for the program and the cognizant inspector for the plant being inspected.
5. Emphasis will be placed on training two senior Pennsylvania staff who can learn this area quickly and who, in turn, can begin to train other Pennsylvania staff.
6. The training may also involve pre-inspection planning at the Regional office or in the NRC resident inspection office prior to the inspection. The Commonwealth inspection staff is expected to have reviewed prior inspection reports, inspection findings and enforcement actions for the facility being inspected. It is also expected that the Commonwealth inspectors are thoroughly knowledgeable of the NRC inspection procedures and reference material cited in those procedures. These are important parts of preparing for the inspection.
7. The training accompaniments will be provided by a Region based inspector who routinely inspects waste packaging and transportation activities, not the resident inspector or TMI-2 inspection staff.
8. The contact for the training accompaniment inspections at reactors will be the Chief, Emergency Preparedness and Radiological Protection Branch, Division of Radiation Safety and Safeguards. The similar contact for materials inspections will be the Chief, Nuclear Materials Safety and Safeguards Branch, Division of Radiation Safety and Safeguards. If either of the above are not available the contact will be the Regional State Liaison Officer.

C. Initiation of Independent Inspections by Pennsylvania Staff

1. The Commonwealth will ensure that its inspectors are qualified in accordance with NRC inspection and Enforcement Manual Chapter 1245, or its equivalent, and will keep NRC informed of the Commonwealth inspectors that have been so qualified and certified. Prior to Commonwealth qualification of inspectors, Commonwealth management, accompanied by an NRC representative, will assess the performance of its inspectors during an inspection to determine their preparedness to conduct independent inspections. Following the accompaniment, the NRC representative will provide a critique to the inspector and his supervisor. Periodically, Commonwealth management will accompany its inspectors during the performance of inspections to verify the inspector's continued effectiveness. Finally, NRC will inform Commonwealth management of problems identified during the NRC review of Commonwealth inspection findings for appropriate corrective action.

2. Commonwealth inspectors may periodically accompany NRC inspectors during NRC's programmatic waste package and transportation inspections to maintain familiarity with a licensee's program and NRC inspection requirements. The Commonwealth and NRC may also meet periodically to exchange information and discuss changes in procedures. Commonwealth inspectors may also contact the region based and resident inspectors prior to or during the Commonwealth's independent inspection at the site.
3. Arrangements to gain access to any licensee's facility are a responsibility of the Commonwealth. Specially, individuals planning to conduct inspections at reactor facilities should meet all licensee requirements for site access.

II. PROCEDURES TO BE FOLLOWED BY PENNSYLVANIA FOR INSPECTIONS CONDUCTED UNDER THE SUBAGREEMENT

A. Pennsylvania will perform the following inspection activities relating to 10 CFR 71:

1. Examine the licensee's written waste shipment records. As the situation allows, observe completed packages so as to:
 - a. Verify that the licensee has marked the package with the applicable general and specific package markings which are required (49 CFR 172.300 through 310).

Verify that for NRC-certified packages, or DOT-revalidated packages of foreign origin, the outside of the package is durably and legibly marked with the package identification marking indicated in the COC or the DOT Competent Authority Certificate.
 - b. Verify that for non-exempted packages, the licensee provides for and accomplishes labeling of each package with the appropriate category of RADIOACTIVE (White-I, Yellow-II, or Yellow-III) label, one each on two opposite sides of the package; and accurately completes the entry of the required information in the blank spaces thereon (49 CFR 172, Subpart E).
 - c. Verify that the licensee provides for and accomplishes monitoring of each completed package to assure that external radiation and removable surface contamination are within the allowable limits [49 CFR 173.475(i), 49 CFR 173.411, 49 CFR 173.433, and 10 CFR 71.87(i) and (j)].

2. Examine the licensee's written waste shipment records. As the situation allows, observe actual transport operations so as to:

- a. Verify whether the licensee prepared the required shipping paper documentation, so as to accurately include all of the applicable required elements of information, including the shipper's certificate. [NOTE: for licensee private motor vehicle shipments, the certificate is not required (49 CFR 172, Subpart C).]
- b. For non-exclusive use shipments, verify that the licensee provides to a highway carrier or applies directly to a rail vehicle, the required placards whenever he delivers any quantity of RADIOACTIVE-Yellow-III labeled packages to such carrier for transport (49 CFR 172.506 and 508).
- c. For exclusive use shipments, verify that the licensee assures that the package and vehicle radiation/contamination levels are within the regulatory limits [49 CFR 173.475(i) and 10 CFR 71.897(i) and (j)].

Verify that except for uranium or thorium ores, the transport vehicle is placarded by the licensee when delivering to a carrier any exclusive-use shipment for which placarding is required [49 CFR 172, Subpart F, and 49 CFR 173.425(b)(7)].

For exclusive use shipments, verify that shipping paper documentation provided by the licensee to the carrier contains satisfactory instructions for maintenance of exclusive-use shipment controls [49 CFR 173.411(c) and 49 CFR 173.425(b)(9)].

Verify that for exclusive-use shipments of low-specific activity materials, the licensee has provided for the additional specific requirements [49 CFR 173.425(b)(1) through (9)].

- d. Verify that the licensee provides for notification to the consignee before shipment: the dates of shipment and expected arrival, any special loading/unloading or operating instructions whenever any non-exempt fissile material and/or packages containing "highway route controlled quantities" are involved [49 CFR 173.22(b) and 10 CFR 71.89].
- e. Verify that the licensee provides for advance notification to the Governor of a State, or his designee, or any shipment or radioactive waste requiring Type B packaging through, to, or across a state

boundary (10 CFR 71.97). [NOTE: This requirement is not the same as that required for safeguards purposes pursuant to 10 CFR 73.72.]

3. Review the licensee's records and reports to verify that a system is in place to:
 - a. Maintain on file for two years after shipment a record of each shipment of licensed material (which is not exempt therefrom) and that such records contain the required information [10 CFR 71.87 and 10 CFR 71.91(a)].
 - b. Reports to the director, NMSS, within 30 days, any instances where there has been a significant reduction in the effectiveness of any packaging during its use; providing additionally the details of any defects of safety significance to the packaging after first use and the means employed to repair such defects to prevent their recurrence (10 CFR 71.95).
 - c. Immediately report to DOT, when transporting licensed material as a private carrier, any incident that occurs in which as a direct result of the radioactive material; any person is killed; receives injuries requiring hospitalization; property damage exceeds \$59,000; or fire, breakage, spillage, or suspected radioactive contamination occurs (49 CFR 171.15 and 49 CFR 171.16).

B. Pennsylvania will perform the following inspection activities relating to 10 CFR Parts 20 and 61:

1. Review the licensee's record and, as the situation allows, observe actual packages and transport activities to verify that each shipment of radioactive waste intended for off-site disposal to a broker or a licensed land disposal facility is accompanied by a shipment manifest which includes all of the required information [10 CFR 20.311(b) and (c)].
2. Review the licensee's documentation and records to determine whether procedures have been established and are being maintained to properly classify all low-level wastes according to 10 CFR 61.55.
3. Review the licensee's documentation and records to determine whether procedures have been established and are being maintained, to properly characterize low-level waste in conformance with the requirements of 10 CFR 61.56.

4. Review the licensee's records and as the situation allows, observe actual packages and transport activities to verify that each package of low-level waste intended for shipment to a licensed land disposal facility is labeled, as appropriate, to identify it as Class A, B, or C waste in accordance with the classification criteria of 10 CFR 61.55 [10 CFR 20.311(d)(2)].
 5. Review the licensee's records and, as the situation allows, observe actual packages and transport activities to verify that the licensee has forwarded to receptionist or delivered to waste collectors at the time of shipment a copy of the waste manifest. Verify that acknowledgement of receipt of the manifest is obtained. Verify that the licensee has a procedure in place to effect an investigation in any instances wherein acknowledgement of receipt of the shipment has not been received within the specified period. Verify that procedures are in place to report such investigations to the appropriate NRC Regional Office and file the required written report [10 CFR 20.311(d), (3), (f) and (h)].
 6. Review the licensee's records to verify that the applicable disposal site license conditions are being met. Verify that the licensee has on file a current version of the disposal site license.
- C. Inspections performed by the Commonwealth for and on behalf of the Commission are not to include those elements of NRC inspection procedures dealing with evaluation of the licensee's written procedures, equipment quality control, programs, training or staffing.

III. DOCUMENTATION OF INSPECTION FINDINGS

Following each inspection, the Commonwealth will document the areas covered and findings of the inspection in an inspection report using guidance set out in NRC Inspection and Enforcement Manual Chapters 0610 and 0611. Following Commonwealth management approval, the report will be sent to the NRC contact listed in Section 9 of the Subagreement with a copy to the licensee. The Commonwealth will complete and forward the inspection report to the NRC within 30 days of completion of the inspection. Following appropriate NRC review, the report will be placed in the Public Document Room and a request sent to the licensee by the NRC for proper corrective action if deemed necessary. For those inspections performed by the Commonwealth which result in deficiencies in compliance with NRC regulations, the Commonwealth shall identify the deficiencies in the cover letter transmitting the report, and specify that any enforcement action is a responsibility of the NRC. In addition, when any findings which would become a violation once the shipment departs the plant gate are identified, such findings should be furnished to the licensee and the NRC Resident Inspector before the shipment departs the licensee's site. It is the Commission's sole discretion as to whether the licensee will be requested or required to take corrective action or to respond to

discrepancies in compliance with NRC regulations as a result of findings from these inspections. Commonwealth inspectors will provide support to NRC during any hearings and other meetings relating to their inspections, as required.

IV. CHANGES TO IMPLEMENTING PROCEDURES

These implementing procedures may be changed by mutual written agreement between the Director, Division of Radiation Safety and Safeguards, NRC, and the Chief, Division of Nuclear Safety, Commonwealth of Pennsylvania.

FOR THE NUCLEAR REGULATORY COMMISSION

Division of Radiation Safety and Safeguards

Dated: August 17, 1987

FOR THE COMMONWEALTH OF PENNSYLVANIA

Division of Nuclear Safety

Dated: September 16, 1987



Commonwealth of Pennsylvania
Office of the Governor
Harrisburg

The Governor

November 4, 1986

Nunzio J. Palladino, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Palladino:

As requested, enclosed please find three signed copies of the Memorandum of Understanding between the Commonwealth of Pennsylvania and the U.S. Nuclear Regulatory Commission regarding methods of cooperation in areas of mutual interest involving nuclear safety. On behalf of Pennsylvania I would like to thank you for this opportunity.

Sincerely,

Dick Thornburgh
Governor

bcc: Honorable Nicholas DeBenedictis
Barry Hartman, Esquire
Harold Miller

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE
COMMONWEALTH OF PENNSYLVANIA
AND THE
U.S. NUCLEAR REGULATORY COMMISSION**

This Memorandum of Understanding between the Commonwealth of Pennsylvania (hereafter "Commonwealth") and the U.S. Nuclear Regulatory Commission (hereafter "NRC") expresses the desire of the parties to cooperate in the regulation of nuclear activities; it sets forth mutually agreeable principles of cooperation between the Commonwealth and NRC in areas subject to the jurisdiction of the Commonwealth or the NRC or both. This Memorandum is intended to provide the basis of subsequent detailed subagreements between the parties.

Close cooperation between the signatories will help assure that the goals and policies of the Commonwealth and Federal law will be carried out efficiently and expeditiously without diminishing the responsibilities or authorities of either party.

With the execution of the Memorandum, the Commonwealth and NRC agree to consult regularly and to cooperate in exploring and devising appropriate procedures to minimize duplication of effort to the extent permitted by Commonwealth and Federal law, to avoid delays in decisionmaking, and to ensure the exchange of information that is needed to make the most effective use of the resources of the Commonwealth and the NRC in order to accomplish the purpose of both parties.

Principles of Cooperation

1. Toward these goals, the State and NRC agree to explore together the development of detailed subagreements in areas of mutual concern including, but not necessarily limited to, transportation regulation, at a low-level waste disposal site, low-level waste packaging and shipping inspections, confirmatory environmental monitoring and emergency information exchange.
2. Subagreements under this Memorandum may provide for activities to be performed by either party under mutually acceptable guidelines and criteria which assure that the needs of both are met. For activities performed by one party at the request of the other party under specific subagreements to this Memorandum, either party may explore means by which compensation can be made available to the other party or by which the costs may be shared by the parties.
3. NRC agrees to explore with the Commonwealth the possibility of sharing with the Commonwealth proprietary and other information in NRC's possession that is exempt from mandatory public disclosure.
4. Nothing in this Memorandum is intended to restrict or extend the constitutional or statutory authority of either NRC or the Commonwealth or to affect or vary the terms of a future agreement

between the Commonwealth and the NRC under Section 274b. of the Atomic Energy Act of 1954, as amended.

5. The principal NRC contact under this Memorandum shall be the Director of the Office of State Programs. The principal Commonwealth contact shall be the Director of the Pennsylvania Bureau of Radiation Protection or his or her designee. Subagreements will name appropriate individuals, agencies or offices as contacts.
6. This Memorandum shall take effect upon signing by the Governor of the Commonwealth of Pennsylvania and the Chairman of the Nuclear Regulatory Commission, and may be terminated by either party upon 30 days written notice.

FOR THE COMMONWEALTH OF PENNSYLVANIA

Dick Thornburgh
Governor

Dated at Harrisburg, Pa.
This 4th day of November, 1986

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Nunzio J. Palladino
Chairman

Dated at Washington, D.C.
This 7th day of November, 1986

**SUBAGREEMENT 1
PERTAINING TO LOW-LEVEL RADIOACTIVE WASTE PACKAGE AND
TRANSPORTATION INSPECTIONS
BETWEEN THE
COMMONWEALTH OF PENNSYLVANIA
AND THE
U.S. NUCLEAR REGULATORY COMMISSION**

This Subagreement is entered into under the provisions of the Memorandum of Understanding between the Commonwealth of Pennsylvania and the United States Nuclear Regulatory Commission effective November 4, 1986.

The Commonwealth of Pennsylvania, in fulfilling its obligations under the Low-Level Radioactive Waste Policy Amendments Act of 1985 contemplates that it will make periodic inspections of the areas of low-level radioactive waste packages and transport activities of generators located within its borders if shipments of such waste are destined for disposal at a low-level radioactive waste disposal facility.

The United States Nuclear Regulatory Commission (NRC or Commission) has the statutory responsibility to inspect its licensees to determine compliance with NRC requirements, including requirements pertaining to the shipment, packaging and transportation of low-level radioactive waste destined for disposal. In the exercise of this responsibility, the Commission regularly conducts a review of the waste packaging and transportation programs of its licensees including the licensees' procedures for quality assurance, packaging, marking, labeling and loading of vehicles. These program reviews usually have been found adequate to ensure licensee compliance with the Commission's regulations regarding low-level radioactive waste packaging and transportation without the need for Commission inspection of each individual shipment.

Under Section 274i. of the Atomic Energy Act of 1954, as amended, the Commission in carrying out its licensing and regulatory responsibilities under the Act is authorized to enter into a Memorandum of Understanding (agreement) with any State to perform inspections or other functions on a cooperative basis as the Commission deems appropriate. While the Commission does not conduct on-site inspections of every low-level radioactive waste shipment of its licensees, it desires to foster the goals of the Low-Level Radioactive Waste Policy Amendments Act of 1985, the Commonwealth of Pennsylvania, and the Appalachian Compact.

Accordingly, this Subagreement between the Commonwealth of Pennsylvania and the NRC establishes mutually agreeable procedures whereby the Commonwealth may perform inspection functions for and on behalf of the Commission at certain NRC reactor and materials licensees' facilities which generate low-level radioactive waste.

It is hereby agreed between the Commission and the Commonwealth as follows:

1. The Commission hereby authorizes the Commonwealth to perform, for and on behalf of the Commission, the following functions with respect to low-level radioactive waste, as defined in Section 2(g) of the Low-Level Radioactive Waste Policy Amendments Act of 1985, in the possession of Commission licensees located within the Commonwealth.
 - (a) Inspections to determine compliance with the Commission's rules and regulations regarding waste packages and transportation of low-level radioactive waste destined for disposal at a commercial low-level radioactive waste disposal site; and
 - (b) Notification of Commission licensees and the Commission in writing of any findings disclosed by such inspections. All enforcement actions (such as Notices of Violations, Civil Penalties or Orders) pursuant to this Subagreement resulting from such inspection findings will be undertaken by the Commission.

The Commission agrees to utilize personnel knowledgeable in radiation safety, waste packaging requirements, and packaging and transportation regulations. The Commonwealth agrees to perform its functions under this Subagreement at no cost or expense to the NRC. NRC may provide training to employees of the Commonwealth at no expense to the Commonwealth (except travel and per diem). The Commission does not normally evaluate the Commonwealth's ability to perform such functions; however, prior to Commonwealth qualification of inspectors, Commonwealth management, accompanied by an NRC representative, will assess its inspectors preparedness to conduct independent inspections.

2. The authority to inspect NRC licensees pursuant to the preceding paragraph is limited to the licensee's low-level waste packages and low-level transportation activities. Specifically, this authority is limited to:
 - (a) Review, for understanding, the licensee's written procedures;
 - (b) Inspection of the licensee's written records; and
 - (c) Inspection of completed packages and transportation activities.

The authority does not include assessment of the adequacy of the licensee's written procedures, plant equipment, quality control programs, training programs or staffing. Specific implementing procedures are attached hereto which may be modified, as required.

3. In taking any action authorized hereunder, the Commonwealth shall not undertake to amend or revoke Commission licenses. This Subagreement, however, shall not be construed to preclude the Commonwealth from exercising any authority lawfully available to it under its own laws.
4. Efforts will be made by both parties to avoid duplicative enforcement action against an NRC licensee for the same inspection finding. However, this is not meant to preclude appropriate

complementary actions for the same inspection findings such as termination of a user permit by the Commonwealth and NRC enforcement action.

5. Nothing herein shall be deemed to authorize the Commonwealth to inspect or otherwise enter the premises of any licensee of the Commission which is a Federal instrumentality without the prior consent of the licensee.
6. Nothing herein shall be deemed to preclude or affect in any manner the authority of the Commission to perform any or all of the functions described herein.
7. Nothing herein is intended to restrict or expand the statutory authority of NRC or the Commonwealth or to affect or vary the terms of any agreement in effect under the authority of Section 274b. of the Atomic Energy Act of 1954, as amended.
8. Nothing herein shall be deemed to permit the Commonwealth to impose packaging or transport standards beyond those continued in Federal regulations.
9. The principal NRC contacts under this Subagreement shall be the Emergency Preparedness and Radiological Protection Branch Chief for reactor licensees and the Nuclear Materials Safety and Safeguards Branch Chief or materials licensees, both of whom are located in the Division of Radiation Safety and Safeguards, Region I, NRC. The principal Commonwealth contact shall be the Chief, Division of Nuclear Safety, Pennsylvania Bureau of Radiation Protection.
10. This Subagreement shall become effective upon signing by the Secretary, Department of Environmental Resources, Commonwealth of Pennsylvania, and the Regional Administrator, Region I, Nuclear Regulatory Commission and shall remain in effect permanently unless terminated by either party on thirty days prior written notice.

Dated this 17th day of August 1987 at King of Prussia, PA.

FOR THE NUCLEAR REGULATORY COMMISSION

Regional Administrator

FOR THE COMMONWEALTH OF PENNSYLVANIA

Secretary, Department of Environmental Resources

Dated: September 11, 1987

ATTACHMENT 6

PENNSYLVANIA-OHIO
RADIATION PROTECTION MEMORANDUM OF UNDERSTANDING

I. Purpose

This memorandum of understanding between the Pennsylvania Department of Environmental Resources Bureau of Radiation Protection (hereafter PA BRP) and the Ohio Department of Health Radiological Health Program (hereafter ORHP) expresses the desire of both parties to cooperate in the exchange of information and in the development of protective action recommendations, in response to accidents at The Beaver Valley Power Station in Pennsylvania and Perry Nuclear Power Plant in Ohio.

This memorandum of understanding supplements the memorandum of understanding between the Pennsylvania Emergency Management Agency (PEMA) and the Ohio Disaster Services Agency (OSDA) of June 19, 1987.

The geographic areas of interest include the 10 mile Plume Emergency Planning Zone and the 50 mile Ingestion Emergency Planning Zone surrounding Beaver Valley Power Station, portions of which are located in Ohio. The areas of interest also include the 50 mile Ingestion Emergency Planning Zone surrounding the Perry Nuclear Power Plant, a portion of which is located in Pennsylvania.

II. Agreement

A. Notification

1. PABRP will make confirmatory notification to ORHP upon occurrence of an Unusual Event, Alert, Site Emergency, or General Emergency at Beaver Valley Power Station.
2. ORHP will make a confirmatory notification to PABRP upon occurrence of an Alert, Site Emergency, or General Emergency at Perry Nuclear Power Plant.
3. For accidents at Beaver Valley Power Station with a classification of Site Emergency or higher, PABRP assessment staff will colocate with PEMA at the State EOC. A partial colocation may occur at Alert. (Telephone and Telefax numbers are provided on the attachment.)
4. For accidents at Beaver Valley Power Station or Perry Nuclear Power Plant with a classification of Site Emergency or higher, ORHP assessment staff will colocate with OSDA at the State EOC. A partial colocation may occur at Alert. (Telephone and Telefax numbers are provided on the attachment.)
5. The 24-hour emergency notification numbers are: PEMA 717-651-2001; and OSDA 614-889-7150.

B. Information

1. For accidents at Beaver Valley Power Station, PABRP will provide the following information to ORHP, as available: Meteorological data, status of reactor safety systems, effluent status, dose projections, significance to Ingestion EPZ; accident prognosis and protective action recommendations.
2. For accidents at Perry Nuclear Power Plant, ORHP will provide the following information to PABRP, as available: Meteorological data, status of reactor safety systems, effluent status, dose projections, significance to Ingestion EPZ; accident prognosis and protective action recommendations.
3. To the highest degree possible, PABRP and ORHP will discuss major protective action recommendations before the final decision to implement. It is fully recognized that unilateral protective action recommendations may be made by either party, with or without discussion or agreement.
4. The results of field monitoring measurements and accident related environmental sampling will be regularly exchanged by telephone, and/or telefax with confirmation in writing.
5. The results of all accident related measurements generated by PABRP and/or ORHP shall be reconciled within 30 days of the closeout of an accident involving measurements by either party.

C. Field Operations

1. Field monitoring teams may cross state lines as necessary in the exercise of their duties.
2. Both parties may send technical representation to the EOC of the other party. Timely notification to assure access is advised.

Date: 9/21/87BY: /s/
Robert M. Quillin, Director
Radiological Health Program
Ohio Department of HealthDate: 9/10/87BY: /s/
Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources

ATTACHMENT 6

**Pennsylvania-Maryland
Radiation Protection Agreement**

I. Purpose

This agreement establishes the intentions of the Pennsylvania Bureau of Radiation Protection (PABRP) and the Maryland Center for Radiological Health (MDE-CRH) to exchange information and to notify the other party of recommendations and decisions made during fixed nuclear facility (FNF) incidents to which both agencies are responding.

This agreement supplements the Memorandum of Understanding between the Pennsylvania Emergency Management Agency (PEMA) and the Maryland Emergency Management and Civil Defense Agency (MEM & CDA).

II. Agreement

The following describes the areas of agreement between PABRP and MDE-CRH:

- A. During Alert, Site Area, and General emergencies PABRP will establish contact with MDE-CRH using the most reliable system available (e.g.: dedicated telephone lines; commercial telephone; radio; etc.). This will be the primary means for exchange of information.
- B. The MDE-CRH may send a liaison to the PABRP Assessment Center. The PABRP may send a liaison to the MDE-CRH Accident Assessment Center.
- C. PABRP and MDE-CRH will independently assess the incident when possible. Each will notify the other agency of its assessment results.
- D. Whenever practicable, all major protective action recommendations will be discussed together before final decisions are made to implement them. We recognize the possibility that either State may take unilateral action on a recommendation, or may initiate protective actions without discussions with the other state.
- E. PABRP will give the following information to MDE-CRH: weather data; status of reactor safety systems; and/or water contamination; source terms; dose estimates; 50 mile EPZ significance; reactor prognosis; and recommendations. MDE-CRH will reciprocate to the extent possible when requested by PABRP.

- F. The MDE-CRH will supply the PABRP with its field monitoring and sampling data. PABRP will reciprocate. The results of all accident related measurements generated by PABRP and/or MDE-CRH shall be reconciled within 30 days of the closeout of an accident involving measurements by either party.
- G. Either PABRP or MDE-CRH may request the federal government to provide field monitoring assistance (through DOE or FRMAP). As soon as possible after any request is made, the other party will be advised of the request. The other party will also be updated on the status of Federal government implementation.
- H. When feasible, monitoring team leaders will be located together for purposes of coordination. The Emergency Operations Facility (EOF) will be the preferred location. The desire to coordinate with the Federal monitoring teams will be considered in siting the monitoring team leaders.
- I. Field monitoring and sampling teams may cross state lines if necessary.

ATTACHMENT 7**Pennsylvania - West Virginia
Radiation Protection Agreement****I. Purpose**

The purpose of this agreement is to establish the parameters upon which the Pennsylvania Bureau of Radiation Protection (PABRP) will exchange information and make protective action decisions with the West Virginia Department of Health/Industrial Hygiene Division (WVDOH/IHD).

This agreement supplements the Memorandum of Understanding between the Pennsylvania Emergency Management Agency (PEMA) and the West Virginia Office of Emergency Services (WVOES).

II. Agreement

The following items are agreed to by the WVDOH/IHD and PABRP:

- A. All major protective action recommendations will be discussed together before any final decisions are made to implement them. The possibility that the States may take unilateral action on such recommendations is recognized.
- B. The WVDOH/IHD will accept PABRP's assessment during the duration of the incident. This will not preclude the WVDOH/IHD from making an independent assessment.
- C. Monitoring team leaders from Pennsylvania and West Virginia will be located together in the Emergency Operations Facility (EOF).
- D. The WVDOH/IHD may send a liaison to the PABRP Assessment Center.
- E. PABRP will establish telephone contact with the WVDOH/IHD.
- F. PABRP will give the following information to the WVDOH/IHD: weather data; status of reactor safety system; and/or water contamination; source term; dose estimate; 50 mile EPZ significance; reactor prognosis; and recommendations.
- G. The WVDOH/IHD will supply the PABRP with its team monitoring and food contamination data. This will normally be accomplished via the EOF dedicated phone to the PABRP Assessment Center. PABRP will reciprocate.
- H. The results of all accident related measurements generated by PABRP and/or WVDOH/IHD shall be reconciled within 30 days of the closeout of an accident involving measurements by either party.

I. Field monitoring teams may cross state lines if necessary.

III. Authority

Nothing in this mutual agreement is intended to bind, alter, restrict, or extend the constitutional or statutory authority of the West Virginia Department of Health or the Pennsylvania Department of Environmental Resources, or any other Agency of these states.

IV. Revision

This agreement supersedes the prior agreement signed January 16, 1981, by William H. Aaroe, signed January 20, 1981, by Thomas M. Gerusky.

Date: 10/3/88

By: /s/
Kazim Sheikh, M.D., Director
Industrial Hygiene Division
West Virginia Department of Health

Date: 9/22/88

By: /s/
Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources

PP&L

PA Bureau of Radiation Protection - Pennsylvania Power and Light Letter of Agreement

The purpose of this letter is to state the agreement between the PA Department of Environmental Resources, Bureau of Radiation Protection (BRP), and Pennsylvania Power and Light Company (PP&L) for deployment of field teams during actual emergencies, or drills and exercises at the Susquehanna Steam Electric Station (SSES).

BRP field teams will be deployed to pre-selected monitoring locations within the SSES EPZ to perform ambient radiation measurements, and air sampling and analysis for radiiodine. PP&L field teams will operate on the free-ranging basis to obtain peak measurements in the plume. Information on field team measurements will be exchanged between PP&L and BRP.

PP&L accepts the responsibility to obtain peak measurements in the plume and it will not be necessary for these measurements to be repeated by BRP field teams.

Date: 8/11/95By: William P. Domsife

William P. Domsife, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources

Date: 8/11/95By: Anthony M. Price

Anthony M. Price, Supervisor
Nuclear Emergency Planning
Pennsylvania Power and Light Company



PA BUREAU OF RADIATION PROTECTION - EXELON NUCLEAR

LETTER OF AGREEMENT

The purpose of this letter is to state the agreement between the PA Department of Environmental Protection, Bureau of Radiation Protection (BRP) and Exelon Nuclear for the deployment of field teams during actual emergencies, or drills and exercises at Limerick Generating Station, Peach Bottom Atomic Power Station, and Three Mile Island Station.

BRP field teams will be directed to monitoring locations within the Limerick, Peach Bottom or TMI EPZ to perform ambient radiation measurements, and air sampling and analysis for radioiodine. Exelon field teams will operate on the free-ranging basis to obtain peak measurements in the plume. Information on field team measurements will be exchanged between Exelon and BRP.

Because Exelon accepts the responsibility to obtain peak measurements in the plume, it will not be necessary for these measurements to be repeated by BRP field teams.

Date: 10-16-01

By: 

David J. Allard, CHP, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Protection

Date: 10/19/01

By: 

Donald R. Tailleart, Manager
Emergency Preparedness
Mid Atlantic Regional Operating Group
Exelon Nuclear

PA BUREAU OF RADIATION PROTECTION - DUQUESNE LIGHT COMPANY

LETTER OF AGREEMENT

This letter states the agreement between the PA Department of Environmental Resources, Bureau of Radiation Protection (BRP) and Duquesne Light Company (DLC) for the deployment of field teams during actual emergencies, or drills and exercises at Beaver Valley Power Station.

BRP field teams will be deployed to pre-selected monitoring locations within the Beaver Valley EPZ to perform ambient radiation measurements, and air sampling and analysis for radioiodine.

DLC field teams will be dispatched to specific pre-designated survey locations to perform ambient radiation measurements and air sampling for radioactivity. Additional locations may be assigned during an emergency in response to special needs. Survey procedures require DLC field teams to monitor ambient radiation measurements while enroute between assigned monitoring locations.

The purpose of field measurements is to verify the adequacy of plume exposure pathway protective action recommendations based on plant conditions or dose assessments. Measurements of peak dose rate are obtained when the value of the measurements is deemed to justify the additional exposure of field team personnel. Due to local constraints associated with the river valley and/or the road network in the plant environs, peak measurements are likely unachievable. Duquesne Light agrees to exchange available field survey results with BRP once the Technical Support Center is activated.

Because DLC accepts the responsibility to obtain available peak measurements in the plume, it will not be necessary for these measurements to be repeated by BRP field teams.

Date: 1/14/94

By: William P Dornsife

William P. Dornsife, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources

Date: 1/24/94

By: George S Thomas

George S. Thomas, Vice-President
Nuclear Services
Duquesne Light Company

Pennsylvania - New Jersey
Radiation Protection Agreement

I. Purpose

The purpose of this agreement is to define how the Pennsylvania Bureau of Radiation Protection (PABRP) and the New Jersey Bureau of Nuclear Engineering (NJBNE) will cooperatively participate during an emergency response to a nuclear power plant accident within their respective jurisdictions.

II. Scope

- A. Specific areas in Pennsylvania and New Jersey are within the designated 50 mile Emergency Planning Zone (EPZ) ingestion pathway for the Limerick (PA), Peach Bottom (PA), Oyster Creek (NJ), Salem (NJ), and Hope Creek (NJ) nuclear generating stations. This Agreement establishes which emergency response operations conducted by the two Bureaus related to the ingestion EPZ radiological evaluation are best served by a cooperative effort.
- B. This Agreement supplements the Statement of Agreement between the Commonwealth of Pennsylvania and the State of New Jersey.

III. Agreement

- A. PABRP and NJBNE will provide each other with the following information during an emergency response to a nuclear generating station notification at the Alert, Site Area, or General Emergency Action Level: Status of reactor safety systems and prognosis for accident mitigation and plant recovery; source term; meteorological data; dose projection; and potential for 50 mile EPZ significance; and protective action recommendations.

The primary means of communication will be via facsimile transmitter. (PABRP 717-783-8965, PA Emergency Management Agency 717-783-7393.) New Jersey facsimile transmitter numbers will be confirmed by commercial telephone at each location. (NJBNE Headquarters 609-987-2032, NJBNE EOF Artificial Island 609-339-3788 or 3789, NJBNE EOF Oyster Creek 201-370-8073 or 8083.)

- B. The PABRP and NJBNE will also supply each other with their field monitoring data and the results of radiochemical analyses of samples collected. This will be accomplished by facsimile transmitter or commercial phone between the PABRP Assessment Center (717-787-3479) and the NJBNE Assessment Center (609-530-6501, 5714, 6388, 6389). The results of all accident related measurements shall be reconciled within 30 days of the closeout of an accident involving measurements by either party.
- C. PABRP or NJBNE will, to the extent practicable, lend their respective field monitoring teams to assist in monitoring within the 10 and 50 mile EPZs.
- D. Field monitoring teams may cross state lines if necessary.

IV. Authority

Nothing in this mutual agreement is intended to bind, alter, restrict, or extend the constitutional or statutory authority of the New Jersey Department of Environmental Protection or the Pennsylvania Department of Environmental Resources or any other Agency of these states.

V. Revisions

This agreement supersedes the prior agreement signed August 30, 1982, by Frank J. Cosolito and signed September 13, 1982 by Thomas M. Gerusky.

By: Thomas M. Gerusky
THOMAS M. GERUSKY, DIRECTOR
Bureau of Radiation Protection
Pennsylvania Department of Environmental Resources

Date: 12/9/88

By: Jennifer A. Moon
JENNIFER A. MOON, ACTING CHIEF
Bureau of Nuclear Engineering
New Jersey Department of Environmental Protection

Date: 12/15/88



DEPARTMENT OF THE ENVIRONMENT

2500 Broening Highway, Baltimore, Maryland 21224

Area Code 301 • 631-

William Donald Schaefer
Governor

Martin W. Walsh, Jr.
Secretary

December 28, 1988

Thomas M. Gerusky, Director
Commonwealth of Pennsylvania
Department of Environmental Resources
P.O. Box 2063
Harrisburg, Pennsylvania 17120

Dear Mr. Gerusky:

Tom
Please find enclosed a signed copy of the revised radiation protection agreement between our two agencies. I too feel that the level of cooperation we have established benefits both our emergency response programs and I look forward to building on our established record.

Enjoy the holidays, and I look forward to seeing you soon.

Sincerely,

A handwritten signature in cursive script that reads 'Roland G. Fletcher'.

Roland G. Fletcher, Administrator
Center for Radiological Health

RGF/dps

Enclosure

Pennsylvania - Maryland
Radiation Protection Agreement

I. Purpose

This agreement establishes the intentions of the Pennsylvania Bureau of Radiation Protection (PABRP) and the Maryland Center for Radiological Health (MDE-CRH) to exchange information and to notify the other party of recommendations and decisions made during fixed nuclear facility (FNF) incidents to which both agencies are responding.

This agreement supplements the Memorandum of Understanding between the Pennsylvania Emergency Management Agency (PEMA) and the Maryland Emergency Management and Civil Defense Agency (MEM & CDA).

II. Agreement

The following describes the areas of agreement between PABRP and MDE-CRH:

- A. During Alert, Site Area, and General emergencies PABRP will establish contact with MDE-CRH using the most reliable system available (e.g.: dedicated telephone lines; commercial telephone; radio; etc.). This will be the primary means for exchange of information.
- B. The MDE-CRH may send a liaison to the PABRP Assessment Center. The PABRP may send a liaison to the MDE-CRH Accident Assessment Center.
- C. PABRP and MDE-CRH will independently assess the incident when possible. Each will notify the other agency of its assessment results.
- D. Whenever practicable, all major protective action recommendations will be discussed together before final decisions are made to implement them. We recognize the possibility that either State may take unilateral action on a recommendation, or may initiate protective actions without discussions with the other state.
- E. PABRP will give the following information to the MDE-CRH: weather data; status of reactor safety system; and/or water contamination; source terms; dose estimates; 50 mile EPZ significance; reactor prognosis; and recommendations. MDE-CRH will reciprocate to the extent possible when requested by PABRP.
- F. The MDE-CRH will supply the PABRP with its field monitoring and sampling data. PABRP will reciprocate. The results of all accident related measurements generated by PABRP and/or MDE-CRH shall be reconciled within 30 days of the closeout of an accident involving measurements by either party.
- G. Either PABRP or MDE-CRH may request the federal government to provide field monitoring assistance (through DOE or FRMAP). As soon as possible after any request is made, the other party will be advised of the request. The other party will also be updated on the status of Federal government implementation.
- H. When feasible, monitoring team leaders will be located together for purposes of coordination. The Emergency Operations Facility (EOF) will be the preferred

location. The desire to coordinate with the Federal monitoring teams will be considered in siting the monitoring team leaders.

I. Field monitoring and sampling teams may cross state lines if necessary.

III. Authority

Nothing in this mutual agreement is intended to bind, alter, restrict, or extend the constitutional or statutory authority of the Maryland Department of the Environment or the Pennsylvania Department of Environmental Resources or any other Agency of these states.

IV. Revision

This agreement supercedes the prior agreement signed March 16, 1982, by Thomas M. Gerusky and signed March 23, 1982, by Robert E. Corcoran.

Date: 12/15/88

By: Roland G. Fletcher
Roland G. Fletcher, Administrator
Center for Radiological Health
Maryland Department of the Environment

Date: 12/15/88

By: Thomas M. Gerusky
Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources

cc: EP Files

CH:cak

246 N. High Street
Post Office Box 118
Columbus, Ohio 43266-0118

Telephone (614) 466-3543



RICHARD F. CELESTE
Governor

September 25, 1987

Margaret Reilly
Department of Environmental Resources
Bureau of Radiation Protection
P.O. Box 2063
Harrisburg, PA 17120

Dear Maggy:

Attached is one signed Memorandum Of Understanding between our agencies. Thank you for making the suggested change. Also enclosed a copy of the most current listing of our Radiological Health Program personnel. Feel free to contact any one of us at home should the need arise.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ben".

Ben Wilmoth
Radiological Health Unit

PENNSYLVANIA-OHIO
RADIATION PROTECTION MEMORANDUM OF UNDERSTANDING

I. Purpose

This memorandum of understanding between the Pennsylvania Department of Environmental Resources Bureau of Radiation Protection (hereafter PA BRP) and the Ohio Department of Health Radiological Health Program (hereafter ORHP) expresses the desire of both parties to cooperate in the exchange of information and in the development of protective action recommendations, in response to accidents at The Beaver Valley Power Station in Pennsylvania and Perry Nuclear Power Plant in Ohio.

This memorandum of understanding supplements the memorandum of understanding between the Pennsylvania Emergency Management Agency (PEMA) and the Ohio Disaster Services Agency (OSDA) of June 19, 1987.

The geographic areas of interest include the 10 mile Plume Emergency Planning Zone and the 50 mile Ingestion Emergency Planning Zone surrounding Beaver Valley Power Station, portions of which are located in Ohio. The areas of interest also include the 50 mile Ingestion Emergency Planning Zone surrounding the Perry Nuclear Power Plant, a portion of which is located in Pennsylvania.

II. Agreement

A. Notification

1. PABRP will make confirmatory notification to ORHP upon occurrence of an Unusual Event, Alert, Site Emergency, or General Emergency at Beaver Valley Power Station.
2. ORHP will make a confirmatory notification to PABRP upon occurrence of an Alert, Site Emergency, or General Emergency at Perry Nuclear Power Plant.
3. For accidents at Beaver Valley Power Station with a classification of Site Emergency or higher, PABRP assessment staff will colocate with PEMA at the State EOC. A partial colocation may occur at Alert. (Telephone and Telefax numbers are provided on the attachment.)
4. For accidents at Beaver Valley Power Station or Perry Nuclear Power Plant with a classification of Site Emergency or higher, ORHP assessment staff will colocate with OSDA at

the State EOC. A partial colocation may occur at Alert. (Telephone and Telefax numbers are provided on the attachment.)

5. The 24-hour emergency notification numbers are: PEMA 717-783-8150; and OSDA 614-889-7150.

B. Information

1. For accidents at Beaver Valley Power Station, PABRP will provide the following information to ORHP, as available: Meteorological data, status of reactor safety systems, effluent status, dose projections, significance to Ingestion EP2; accident prognosis and protective action recommendations.
2. For accidents at Perry Nuclear Power Plant, ORHP will provide the following information to PABRP, as available: Meteorological data, status of reactor safety systems, effluent status, dose projections, significance to Ingestion EP2; accident prognosis and protective action recommendations.
3. To the highest degree possible, PABRP and ORHP will discuss major protective action recommendations before the final decision to implement. It is fully recognized that unilateral protective action recommendations may be made by either party, with or without discussion or agreement.
4. The results of field monitoring measurements and accident related environmental sampling will be regularly exchanged by telephone, and/or telefax with confirmation in writing.
5. The results of all accident related measurements generated by PABRP and/or ORHP shall be reconciled within 30 days of the closeout of an accident involving measurements by either party.

C. Field Operations

1. Field monitoring teams may cross state lines as necessary in the exercise of their duties.
2. Both parties may send technical representation to the EOC of the other party. Timely notification to assure access is advised.

Date: 9/21/87

BY: Robert M. Quillin
Robert M. Quillin, Director
Radiological Health Program
Ohio Department of Health

Date: 9/10/87

BY: Thomas M. Gerusky
Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources

Attachment

Pennsylvania - Ohio Radiation Protection Memorandum of Understanding

Ohio

ORHP: 614-481-5800
ODSA: 614-889-7158
Emergencies - both: 614-889-7173
Telecopier - ODSA: 614-889-7183
614-764-2742

Pennsylvania

BRP: 717-787-2480; 3479
PEMA: 717-783-8150
BRP at PEMA: 717-783-2533
BRP Telecopier: 717-783-8965
PEMA telecopier: 717-783-7393

Cooperative Agreement

This AGREEMENT, entered into this 5th day of September, 1980, between the UNITED STATES OF AMERICA (hereinafter called the "Government") acting through the DEPARTMENT OF ENERGY (hereinafter called the "DOE"), and the COMMONWEALTH OF PENNSYLVANIA (hereinafter called the "State"), acting through its DEPARTMENT OF ENVIRONMENTAL RESOURCES,

WITNESSETH THAT:

WHEREAS, the Uranium Mill Tailings Radiation Control Act of 1978 (hereinafter called the "Act") approved November 8, 1978, authorizes the Secretary to enter into this Agreement with the State to perform remedial action at the inactive mill tailings site and vicinity property designated as a "processing site" in Canonsburg, Pennsylvania, and

WHEREAS, the purpose of this Agreement is to establish a program of assessment and remedial action at the processing site in order to stabilize and control such tailings in a safe and environmentally sound manner and to minimize or eliminate radiation health hazards to the public, and

WHEREAS, the parties hereto are mutually desirous of entering into such an Agreement for the performance of such remedial action pursuant to the requirements of the Act under the terms set forth below.

NOW THEREFORE, the parties hereto mutually agree as follows:

I. DEFINITIONS

As used throughout this Agreement, the following terms shall have the meanings set forth below:

- I-A A. The term "Secretary" means the Secretary of Energy or any duly authorized representative.
- I-D B. The term "Commission" means the Nuclear Regulatory Commission or any duly authorized representative.
- I-E C. The term "Administrator" means the Administrator of the Environmental Protection Agency or any duly authorized representative.
- I-F D. The term "State" means the Commonwealth of Pennsylvania or any duly authorized representative.
- I-H E. The term "person" means any individual, association, partnership, corporation, firm, joint venture, trust, government entity, and any other entity, except that such term does not include any Indian or Indian Tribe.

- J F. The term "processing site" means (1) any site including the mill, containing residual radioactive materials at which all or substantially all of the uranium was produced for sale to any Federal agency prior to January 1, 1971, under a contract with any Federal agency, unless such site was owned or controlled as of January 1, 1978, or is thereafter owned or controlled, by any Federal agency, or a license (issued by the Commission or its predecessor agency under the Atomic Energy Act of 1954 or by a State as permitted under Section 274 of such Act) for the product derived from ores is in effect on January 1, 1978, or is issued or renewed after such date; ~~and~~ (2) any vicinity site; ~~and~~ (3) *any residual radioactive material located at properties defined in (1) and (2).*
- J G. The term "vicinity site" refers to any real property or improvement thereon which is (1) in the vicinity of that portion of the processing site defined in Section 101(6)(A) of the Act, and (2) is determined by the Secretary in consultation with the Commission, to be contaminated with residual radioactive materials derived from such site.

-J H. ~~The terms "administrative costs," "direct costs" and "allowable costs" insofar as they relate to the undertaking of the remedial action selected pursuant to Article II, below, will be defined in the Remedial Action Plan, which will be attached as appendices to this Agreement, after having been approved by DOE and the State.~~

-J ~~(H)~~ The term "head of the agency" as used herein means the Secretary, or his duly authorized representative, and the term "his duly authorized representative" means any person or persons or board (other than the DOE Contracting Officer) authorized to act for the head of the agency or the Secretary.

-C (I) The term "DOE Contracting Officer" means the person executing this Agreement on behalf of the Government, and any other officer or civilian employee who is properly designated in writing to the State as a DOE Contracting Officer; and the term includes, except as otherwise provided in this Agreement, the authorized representative of a DOE Contracting Officer acting within the limits of his authority, when so designated in writing to the State.

-W (J) Except as otherwise provided in this Agreement, the term "subcontracts" includes purchase orders under this Agreement.

(K) The term "subcontractor" means the contractor to the State and all tiers of subcontracting thereunder.

I-G (L) The term "State Contracting Officer" means the Director of Radiation Protection and Toxicology or any duly authorized representative of such official.

I-S (M) The term "Advance by Treasury check" means a payment made to the State by Treasury check, in accordance with the provisions of Treasury Circular No. 1075, upon request by the State before cash outlays are made for allowable costs incurred and anticipated to be incurred by the State.

I-T (N) The term "reimbursement by Treasury check" means a payment made to the State with a Treasury check upon request by the State or reimbursement for cash outlays made for allowable costs.

I-U (O) The term "program income" means the State's share of proceeds from:
(1) any sale by the State of a processing site pursuant to Article V of this Agreement; and (2) any remilling of residual radioactive material done pursuant to Article II of this Agreement and Section 108(b) of the Act. Program income does not include any interest earned on advances of Government funds pursuant to this Agreement.

I-K (P) The term "residual radioactive materials" means: (1) waste at the processing site, which the Secretary determines to be radioactive, in the form of tailings resulting from the processing of ores for the extraction of uranium and other valuable constituents of the ores; and (2) other waste, which the Secretary determines to be radioactive, at the processing site which relate to such processing, including any residual stock of unprocessed ores or low-grade materials.

- M (Q) The term "EPA Standards" means those standards, promulgated as standards by rule of the Administrator pursuant to Section 275 of the Atomic Energy Act of 1954 as amended, of general application for the protection of the public health, safety, and the environment from radiological and nonradiological hazards associated with residual radioactive materials located at processing sites and depository sites.
- N (R) The term "depository site" means any site, which may include the processing site, used for the permanent disposition, stabilization and control of residual radioactive materials in accordance with and pursuant to Title I of the Act and this Agreement.
- O (S) The term "remedial action" means the assessment and technical effort, including where appropriate the remilling of tailings to extract uranium and other mineral values where practicable, in order to stabilize and control the residual radioactive materials in a safe and environmentally sound manner and to minimize or eliminate radiation health hazards to the public.

II. DESCRIPTION OF REMEDIAL ACTION PROGRAM

- A A. The program covered by this Agreement is a cooperative effort between the DOE and the State for the purpose of assessment and remedial action at the inactive mill tailings site and vicinity property in Canonsburg, Pennsylvania, designated by the Secretary as a "processing site" in order to stabilize and control such tailings in a safe and environmentally sound manner and to minimize or eliminate radiation health hazards to the public.
- B B. With the participation of the State and the concurrence of the Commission, the Secretary shall select and perform the remedial action at the designated processing site and the disposal site, if separate, in accordance with the general standards prescribed by the Administrator pursuant to Section 275a of the Atomic Energy Act of 1954, as amended. ~~Remedial action shall be carried out, to the greatest extent practicable, in accordance with the priorities established pursuant to Section 102 of the Act.~~

5

I-B C. The Secretary shall use technology in performing the remedial action as will insure compliance with the general standards promulgated by the Administrator as provided for in paragraph B, above, and will assure the safe and environmentally sound stabilization of residual radioactive materials consistent with existing law.

~~D. No remedial action will be undertaken before the promulgation by the Administrator of the general standards provided for in paragraph B, above. However, the term "remedial action" does not include acquisition of a site if such site is deemed appropriate by the Secretary with the concurrence of the Commission. Nevertheless, the final provisions in Articles III and IV of this Agreement do apply with regard to the actual costs of acquiring a processing site (and any interest therein) or any disposition site (and any interest therein).~~

I-B (D) No remedial action will be undertaken before the promulgation by the Administrator of the EPA standards ~~provided for~~ in paragraph ~~above~~. However, the term "remedial action" does not include acquisition of a site. Nevertheless, the financial provisions in Articles III and IV of this Agreement do apply with regard to the actual costs of acquiring a processing site (and any interest therein) or any ~~dispositional~~ ^{dispositional} site (and any interest therein).

I-P E. The detailed description of the work to be performed will be contained in a written Remedial Action Plan which will be developed by the DOE and the State. The Plan shall become effective upon the written concurrence of the Commission, and it shall become a part of this Agreement upon such concurrence. Upon consultation with the Commission, nonsubstantive written modifications to this Plan (e.g., modifications that would not bear upon any requirements relating to stabilization of residual radioactive materials), may be made by mutual agreement of the parties without formal Commission concurrence. All substantive modifications to the Remedial Action Plan by the parties must also have the written concurrence of the Commission. However, no formal execution of an amendment to this Agreement is required for any modification to the Remedial Action Plan.

I-D-2 F. Before the remedial action outlined in the Remedial Action Plan can be finally decided upon and implemented by the parties, the DOE must comply with the requirements of the National Environmental Policy Act of 1969.

- (G) Any remedial action taken pursuant to this Agreement shall be in accordance with the applicable provisions of the Act, including the provisions of Section 108(b) regarding the remilling of residual radioactive materials.

III. PAYMENTS

- V-C/D A. The Secretary shall pay 90 percent of the allowable costs under this Agreement and the State shall pay the remaining 10 percent of such costs from non-Federal funds.
- such costs shall be: (i) ~~verifiable from the State's records~~; (ii) not included as contributions for any other Government assistance program; (iii) made for charges that are allowable costs; (iv) not paid by the Government under any other Government assistance program; and (v) otherwise conforming to the provisions of this Agreement and the Act.

B. ~~Unless otherwise agreed by the parties hereto, the Secretary or his authorized representative shall make all payments for allowable costs incurred for the performance of remedial action or other allowable costs incurred pursuant to the terms of this Agreement. Once each month (or at more frequent intervals by mutual agreement) the Secretary or his authorized representative may submit to the State, in such form and reasonable detail as necessary, an invoice supported by a statement of costs incurred in the performance of this contract and deemed to constitute allowable costs. Promptly after receipt of each invoice the State shall pay to the Secretary 10 percent of the amount thereof.~~

C. ~~The State shall make no payments pursuant to this Agreement other than to the Secretary or his designee without the prior written approval of the Secretary. In the event such payment is made, the State shall submit an invoice to the Secretary and the Secretary shall pay promptly to the State or its designee 90 percent of the amount thereof. Costs incurred shall be subject to audit at any time prior to settlement under this Agreement. Payments made are subject to adjustment based on audit findings.~~

- I-C
- (B) Unless otherwise agreed by the parties and except as provided pursuant to Article XV, Procurement and Subcontracting, DOE will procure all necessary materials and services needed to perform the remedial action and acquisition of property. Accordingly, DOE will make payment to all contractors performing remedial action work and acquisition of property.

IV-E

The DOE shall submit quarterly, or at more frequent intervals by mutual agreement between the [State Site Representative] and the DOE Contracting Officer, Standard Form 1034, "Public Voucher for Purchases and Services Other Than Personal," a copy of which is attached as Appendix C, supported by a statement of allowable costs incurred by DOE. The DOE shall submit the form original, and two copies, to the State Contracting Officer. Prompt payment shall be made by the State for 10 percent of allowable costs.

- ~~IV-D~~
- (C) The State shall submit quarterly, or at more frequent intervals by mutual agreement between the [State Site Representative] and the DOE Contracting Officer, ~~OMB~~ Standard Form 270, ~~"Request for Advance or Reimbursement,"~~ a copy of which is attached as Appendix D to request payment for the DOE share of any [project costs] incurred by the State. The State shall submit the OMB Standard Form 270, original and two copies to the DOE Contracting Officer. The DOE shall promptly make advance by Treasury Check or reimbursement by Treasury check, or a combination thereof, as payment to the State for a maximum of ninety percent (90%) of allowable costs. In lieu of payment by advance or reimbursement by Treasury check, the State may submit the OMB Standard Form 270 showing allowable costs incurred by the State and requesting that the DOE Contracting Officer offset such costs against the State's share (10%) of the total allowable costs.

IV-E D. The authority under the Act to enter into contracts or other obligations requiring the Government to make outlays may be exercised only to the extent provided in advance in annual authorization and appropriation acts.

IV-D E. Expenditure of funds by the State in fulfillment of this Agreement is contingent upon an appropriation by the Pennsylvania General Assembly.

VIII-A (F) At any time or times prior to final payment under this Agreement, the DOE Contracting Officer may have the State invoices or vouchers and statements of cost audited.

The State shall maintain, and the DOE Contracting Officer shall have the right to examine books, records, documents and other evidence and accounting procedures and practices, sufficient to reflect properly, all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times at the State's offices, or such parts thereof, as may be engaged in the performance of this Agreement as to cost or pricing data submitted by the State.

III-C { All documents, records and other materials described in this paragraph shall be made available at the office of the State Site Representative at all reasonable times, for inspection, audit or reproduction, and shall be retained in accordance with the terms and conditions of Article XI of this Agreement. Each payment theretofore made shall be subject to reduction for amounts included in the related invoice or voucher which are found by the DOE Contracting Officer, on the basis of such audit, not to constitute allowable costs as defined in Article IV "Allowable Cost." Any payment may be reduced for overpayments, or increased for underpayments on preceding invoices or vouchers.

DOE will make available to the State copies of reports.

- (G) Interest earned by the State on advances of Government funds pursuant to this Agreement shall be remitted to the DOE Contracting Officer.

IV. ALLOWABLE COSTS

A. Payment for the allowable costs as hereinafter defined shall constitute full and complete compensation for the performance of work under this Agreement.

B. The allowable costs of performing the work under this Agreement shall be those costs which are directly required to complete the remedial action selected pursuant to Article II, above, including:

1. The actual cost of acquiring the processing site (and any interest therein) or any disposition site (and any interest therein) and any vicinity site acquired pursuant to Article V, paragraph D, of the agreement (and any interest therein); and
2. The costs incurred in the ultimate removal and/or stabilization of the "residual radioactive material" as provided in the Remedial Action Plan; and
3. Relocation costs of all persons relocated as a necessary part of the remedial action undertaken pursuant to this Agreement insofar as such relocation costs are costs which are directly required to carry out such remedial action (The Pennsylvania Eminent Domain Code (26 P.S. § 1-601A) shall apply to this Agreement, subject to any required amendment, or new state authorizing legislation. It is recognized, however, that reimbursement will be as indicated in Article III, paragraph A, of this Agreement.); and
4. The administrative costs associated with the acquisition of lands and interest therein by the State or the Secretary pursuant to the Act; provided, however, that the administrative costs incurred by the State and the DOE to develop, prepare, and carry out this Agreement shall not be considered allowable costs.

V-A (B) Allowable costs under this Agreement shall be:

- (1) Those direct costs (as determined by the DOE Contracting Officer in accordance with Federal Management Circular (FMC) 74-4) incurred by the DOE and the State to:
 - a. Appraise and acquire property (and any interest therein) pursuant to Article V of the Agreement when required by the

Secretary with the concurrence of the Commission.

- b. Design and perform the remedial action pursuant to and in accordance with the terms and conditions of this Agreement.
- c. Pay relocation costs, pursuant to Article V of this Agreement, of all persons and materials relocated as a necessary part of the remedial action undertaken pursuant to this Agreement, or to alleviate potential health risk to occupants of designated sites as determined necessary by the Secretary.

- E-A (2) Those indirect costs (as required by this Agreement and as determined by the DOE Contracting Officer in accordance with Federal Management Circular (FMC) 74-4) associated with the acquisition of property by the State or the transfer of property to the Government by the State pursuant to Article V hereof, but shall not otherwise include any other indirect costs incurred by the DOE or the State to develop, prepare and carry out this Agreement.

V. ACQUISITION, DISPOSITION, AND USE OF PROPERTY

- E-A {
- A. The State, when determined appropriate by the Secretary with the concurrence of the Commission, shall acquire the designated processing site, including where appropriate any interest therein. In the event that the Secretary's designation is amended to include any vicinity site and the State consents to acquisition of any such site (as more specifically provided in Article V, paragraph D, of this agreement), the State shall acquire such vicinity site including any interest therein.
 - B. If the Secretary, with the concurrence of the Commission, determines that removal of residual radioactive material from the processing site is appropriate, the State shall acquire land (including, where appropriate, any interest therein) to be used as a site for the permanent disposition and stabilization of such residual radioactive materials in a safe and environmentally sound manner.
 - C. Acquisition by the State shall not be required under this article if a site located on land controlled by the Secretary or made available by the Secretary of Interior pursuant to Section 106 of the Act is designated by the Secretary, with the concurrence of the Commission, for such disposition and stabilization.

- W-H
- D. The State shall not be required under paragraphs A and B, above, to acquire any real property or improvement outside the boundaries of (1) that portion of the processing site which is described in Section 101(6)(a) of the Act, and (2) the site used for disposition of the residual radioactive materials, provided that the State may consent by amendment to this Agreement to acquire any vicinity site subsequently included in the processing site designation by the Secretary. Upon such consent the State shall acquire the vicinity site, including where appropriate, any interest therein.

- ~~E. Except where the State is required to acquire the processing site pursuant to paragraph A, above, the State shall obtain, in a form prescribed by the Secretary, written consent from any person holding any record interest in the designated processing site for the Secretary or any person designated by him and the State to perform remedial action at the site. Such written consent shall include a waiver by each such person on behalf of himself, his heirs, successors, and assigns (1) releasing the United States and the State of any liability or claim thereof by such person, his heirs, successors, and assigns concerning the remedial action, and (2) holding the United States and the State harmless against any claim by such person on behalf of himself, his heirs, successors, or assigns arising out of the performance of any such remedial action.~~

- W-H
- (E) Except where the State is required to acquire the processing site pursuant to paragraph A of this Article, the State shall use its best efforts to obtain, in a form prescribed by the Secretary, written consent from any person holding any record interest in the designated processing site for the Secretary, or any person designated by the Secretary to perform remedial action at the site. Such written consent shall: (1) include a waiver by each such person on behalf of himself, his heirs, successors and assigns (i) releasing the Government and the State of any liability or claim thereof by such person, his heirs, successors and assigns concerning such remedial action, and (ii) holding the Government and the State harmless against any claim by such person on behalf of himself, his heirs, successors, or assigns arising out of the performance of any such remedial action; (2) specify the remedial action to be performed; (3) provide that the remedial action shall be performed only by the DOE or such person as the [DOE Contracting Officer]

designated; and (4) provide that the State shall notify the owner of record, upon completion of the remedial action, of the nature and extent of the remedial action taken, pursuant to paragraph J of this Article. The State shall advise the DOE Contracting Officer, as soon as possible, whenever it is unable to obtain such written consent, whereupon the DOE Contracting Officer shall instruct or advise the State in writing: (1) that the State should acquire the subject processing site; (2) that no remedial action will be performed at the subject processing site; or (3) of such other determination made by the DOE in connection with the subject processing site.

[- B-1-c] F. The State shall assure that the Secretary, the Commission, and the Administrator and their duly authorized representatives shall have a permanent right of entry at any time to inspect the processing site and the site provided pursuant to paragraph B above, in furtherance of the provisions of Title I of the Act and to carry out this Agreement and enforce the provisions of the Act and any rules prescribed thereunder. This right of entry into an area described in section 101(6)(B) of the Act shall terminate on completion of the remedial action, as determined by the Secretary.

G. In the case of any lands or interests therein acquired by the State pursuant to paragraph A, above, the State with the concurrence of the Secretary and the Commission, may (1) sell such lands and interests, (2) permanently retain such land and interests in lands (or donate such lands and interests therein to another governmental entity within such State) for permanent use by State or entity solely for park, recreational, or other public purposes, or (3) transfer such lands and interests to the United States as provided in paragraph H, below. No site may be sold or retained under this paragraph G if such site is used for the disposition of residual radioactive materials. Before offering for sale any lands and interests therein which comprise the processing site, the State shall offer to sell such lands and interests at their fair market value to the person from whom the State acquired them.

- H. The State shall transfer to the Secretary, when the Secretary (with the concurrence of the Commission) determines that remedial action is completed in accordance with the requirements of Title I of the Act, title to (1) the residual radioactive materials subject to this Agreement, and (2) any lands and interests therein which have been acquired by the State, under paragraphs A and B, above, for the disposition of such materials. No payment shall be made in connection with the transfer of such property from funds appropriated for purposes of the Act other than payments for any administrative and legal costs incurred in carrying out such transfer. The Government shall thereafter bear all costs for maintenance of the materials and the site.

(H) If the Secretary (with the concurrence of the Commission) determines

III-B-1-F

that remedial action is completed in accordance with the EPA

standards, the State shall transfer to the Government title to:

(1) the residual radioactive materials subject to this Agreement,

and (2) any lands and interests therein that have been acquired

by the State, under paragraphs (A) and (B) above, and used as a

depository site. (No payment shall be made in connection with the

transfer of such property from funds appropriated for purposes of

the Act other than payments for any administrative and legal cost

incurred in carrying out such transfer.) The DOE shall thereafter

bear all costs for maintenance monitoring and control of the residual

radioactive materials and the ^{depository} site.

- I. The State shall promptly reimburse the Secretary from the proceeds of any sale made by the State pursuant to paragraph G(1), above. Such reimbursement shall be in an amount equal to the lesser of (1) that portion of the fair market value of the lands or interests therein which bears the same ratio to such fair market value as the Federal share of the costs of acquisition by the State to such lands or interest therein bear to the total cost of such acquisition, or (2) the total amount paid by the Secretary with respect to such acquisition. The fair market value of such lands or interest shall be determined by the Secretary as of the date of the sale by the State.

U-G J. The State shall take such action as may be necessary, pursuant to regulations of the Secretary, to assure that any person who purchases a processing site ^{owned by the State} after the removal of radioactive materials from such site shall be notified prior to purchase of the nature and extent of residual radioactive materials removed from the site, including notice of the date when such action took place, and the condition of such site after such action. If the State is the owner of such site, the State shall so notify any prospective purchaser before entering into a contract, option, or other arrangement to sell or otherwise dispose of such site.

U-B-1-a (K) The State shall acquire real property pursuant to applicable State law, and pursuant to the requirements of the Department of Justice for acquisition of real property by Government agencies as provided in paragraph M below.

U-B-1-a (L) The Secretary shall instruct the State to acquire that portion of the processing site described in Section 101(6)(A) of the Act, property pursuant to this Article by written notice which informs the State of: (1) the acquisition required; (2) the legal description or location of the property to be acquired; (3) the estate or interest in the property to be acquired; and (4) the date by which such property is to be acquired.

U-B-1-a (M) The State, when directed by the DOE Contracting Officer in writing, shall obtain an appraisal of that portion of the processing site described in Section 101(6)(A) of the Act, regardless of whether or not the DOE has determined that the State should acquire such portion of the processing site pursuant to this Article. Any appraisal required pursuant to this paragraph or paragraph O of this Article shall be obtained as soon as possible and shall:

1. Be prepared in compliance with the "Uniform Appraisal Standards for Federal Land Acquisitions" (hereinafter referred to as the "Appraisal Standards") issued by the Interagency Land Acquisition Conference (1973).

2. Be done, to the extent possible, by experts qualified to determine amounts, quality, extractability, accessibility, and commercial demand of the residual radioactive materials (uranium), and, if possible, qualified to determine and certify to the extent to which the presence of the residual radioactive materials actually diminishes or enhances the market value of the millsite. At the option of the DOE Contracting Officer and after discussion with the [State Site Representative], this portion of the appraisal (regarding residual radioactive materials) may be performed or obtained by the DOE rather than by the State. In that event, such portion shall be considered a supplement to the appraisal and the costs of preparing or obtaining such portion shall be an allowable cost under Article IV of this Agreement.

3. Be forwarded to the DOE Contracting Officer, *by definition*

(N) Whenever the State is required to acquire a processing site, depository site, [or agrees to acquire a vicinity site], or any interest therein, pursuant to this Article:

1. The State shall make every reasonable effort to acquire expeditiously the site by negotiation.
2. The State shall obtain all necessary title evidence for use in negotiations for purchase and, if necessary, for use in condemnation proceedings in accordance with the "Standards for the Preparation of Title Evidence in Land Acquisitions by the United States."
3. The State shall obtain an appraisal, before the initiation of negotiations if not already done pursuant to paragraph M of this Article. The appraisal shall be prepared in compliance with the Appraisal Standards and shall otherwise conform to the requirements of paragraph N of this Article. The owner or his designated representative shall be given an opportunity to accompany the

4. The State shall promptly furnish to the Contracting Officer a copy of the title evidence and the appraisal report.
- ✓ 5. The Secretary, before the initiation of negotiations by the State, shall establish an amount which the Secretary believes to be a just maximum compensation for the processing site and shall notify the State of such amount (hereinafter referred to as the "Maximum Amount").
6. The State shall then proceed, pursuant to State law, to negotiate a purchase price and agreement to purchase the site. The State shall not negotiate a price in excess of the Maximum Amount.
7. The State, if unsuccessful in negotiating a purchase price at or below the Maximum Amount, shall then consult with the DOE Contracting Officer for further direction. The DOE shall then

either establish a higher Maximum Amount for continued negotiations or authorize the institution of formal condemnation proceedings by the State pursuant to State Law.
8. No owner of a site shall be required to surrender possession before the State pays, to the extent allowed under State law, the agreed purchase price or deposits with the appropriate State court, for the benefit of the owner, such amounts as are required to authorize the State to take title pending outcome of a condemnation proceeding.
9. In no event shall the State either advance the time for condemnation or defer negotiations or condemnation and the deposit of funds in State court for the use of owner, or take any other action coercive in nature, in order to compel an agreement on the price to be paid for the site.

h-B-1-a

T-B-1-a

10. Upon a determination by DOE that any buildings, structures or improvements located upon the site must be decontaminated pursuant to the remedial action project or will be adversely effected by the remedial action project, the State shall acquire an interest in all such buildings, structures or improvements equal to the interest acquired in the site.
11. The State, as soon as practicable and to the extent allowed under State law, shall reimburse the owner of site for: (i) recording fees, transfer taxes, and similar expenses incidental to conveying title to the site and improvements thereon; (ii) penalty costs for prepayment of any pre-existing recorded mortgage entered into in good faith encumbering the site; and (iii) the pro rata portion of real property taxes paid which are allocable to a period subsequent to the date that title is vested on the State, or the effective date of lawful possession by the State, whichever is the earlier.

12. The State, upon acquisition of a site pursuant to this Article, shall forward to the DOE Contracting Officer: (i) copies of any accepted sales, donation, or exchange agreement; (ii) copies of title evidence; (iii) a map or plat of the land acquired; and (iv) copies of the deed to the State.

III-B-1-e

- D. Whenever the State is required to transfer title to a depository site pursuant to this Article, the State, at the time of such transfer, shall forward to the DOE Contracting Officer a deed which conforms to applicable State law and with the Standards for the Preparation of title Evidence in Land Acquisitions by the United States, and which:

III-C

1. Is a (special) warranty deed. This requirement may be waived by the DOE Contracting Officer, upon a proper showing, as to conveyances by the State acting solely in a representative

2. Shows the name of the State as grantor in the body of the deed and in its acknowledgment.

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3. Conveys the land to the "United States of America and its assigns."

4. Contains a proper description of the land.

5. Conveys by quitclaim all the right, title and interest of the State as grantor in and to any alleys, streets, ways, strips, or gores abutting or adjoining the land.

6. Contains no reservations or exceptions not approved by the DOE Contracting Officer; however, when land is to be conveyed subject to certain rights, such as easements or mineral rights thought to be outstanding in third parties, they must not be excepted from the conveyance, but the deed shall be framed to convey by quitclaim all the State's right, title, and interest subject to the outstanding rights.

7. Refers to the deed(s) to the State, or other source of the State's title, by book, page, and place of record, wherever customary or required by statute.

8. Contains a reference to the DOE as the Government agency for which the lands are being acquired. This statement should follow the description of the land and in no instance should it be included in the granting, habendum or warranty provisions of the deed.

9. Is signed, sealed, attested, and acknowledged by the State as grantor as required by applicable State law.
10. If executed by an attorney in fact, is signed in the name of the principal by the attorney, properly acknowledged by the attorney as the free act and deed of the principal, and be accompanied by the original or a certified copy of the power of attorney and satisfactory proof that the principal was living and the power in force at the time of its exercise.
11. Has affixed sufficient documentary revenue stamps, if required by State law.

II-B-1-b

- P. The State, when determined appropriate by the DOE and so instructed by the DOE Contracting Officer, shall pay relocation expenses to all persons relocated as a necessary part of the remedial action project. Such payment of relocation expenses shall be pursuant to applicable State law. Provided that should there be no applicable State law, any payment of relocation expenses by the State shall be consistent with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, Sections 201 through 204, inclusive, and the Federal Property Management Regulations, Section 101-18.3.

VI. PUBLIC PARTICIPATION

- ✓ A. The State will cooperate with the Government in implementing a public participation plan which will be made a part of the Remedial Action Plan provided for in Article 11, E, above.
- B. The parties shall coordinate all public information in connection with the remedial action program.

VII. RULES

The Secretary shall prescribe such rules consistent with the purposes of the Act as he deems necessary to carry out the provisions of this Agreement pursuant to Title V of the Department of Energy Organization Act. All activities under this Agreement shall be carried out pursuant to any such applicable rules.

Except as otherwise provided in this Agreement, all activities under this Agreement shall be carried out pursuant to applicable Federal and State regulations, including but not limited to such rules and regulations promulgated or to be promulgated by the Secretary pursuant to Section 109 of the Act.

VIII. COVENANT AGAINST CONTINGENT FEES

~~XV~~ The State warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the State for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability or in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

IX. OFFICIALS NOT TO BENEFIT

~~XVI~~ No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

X. EQUAL OPPORTUNITY

(The following clause is applicable unless this Agreement is exempt under the rules, regulations, and relevant orders of the Secretary of Labor (41 CFR, ch. 60).)

~~XVII~~ During the performance of this Agreement, the State agrees as follows:

- ~~XVII~~ A. The State will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The State will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer, recruitment

- or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The State agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Secretary setting forth the provisions of this Equal Opportunity clause.
- B. The State will, in all solicitations or advertisements for employees placed by or on behalf of the State, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- C. The State will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Secretary, advising the labor union or workers' representative of the State's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The State will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- E. The State will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- F. In the event of the State's noncompliance with the Equal Opportunity clause of this Agreement or with any of the said rules, regulations, or orders, this Agreement may be cancelled, terminated, or suspended, in whole or in part, and the State may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. The State will include the provisions of paragraphs (A) through (F) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The State will take such action with respect to any subcontract or purchase order as the contracting agency may direct as

a means of enforcing such provisions, including sanctions of non-compliance. Provided, however, that in the event the State becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the State may request the United States to enter into such litigation to protect the interests of the United States.

XVII

Recipients of DOE financial assistance awards which are provided under DOE Federal Assistance programs shall comply with Part 1040, Chapter X, Title 10 of the Code of Federal Regulations "Nondiscrimination in Federally Assisted Programs" (proposed rule) (10 CFR Part 1040) as published in the FR Vol. 43, No. 222, Thursday, November 16, 1978 (pages 53658 through 53676) and when published, as a final rule. 10 CFR Part 1040 provided that no person shall on the ground of race, color, national origin, sex, handicap, or age be excluded from participation in, be denied the benefits of, be subjected to discrimination under, or be denied employment where the main purpose of the program or activity is to provide employment or when the delivery of program services is affected by the recipient's employment practices in connection with any program or activity receiving Federal assistance from DOE.

XI. EXAMINATION OF RECORDS

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A. This clause is applicable if the amount of this Agreement exceeds \$10,000 and was entered into by means of negotiation, including small business restricted advertising, but is not applicable if this Agreement was entered into by means of formal advertising.

A. The State agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this Agreement or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations, Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of the State involving transactions related to this Agreement.

B. The State further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under the subcontract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations, Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (1) purchase orders not exceeding \$10,000 and (2) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

C. The periods of access and examination described in B and C, above, for records which relate to (1) litigation or the settlement of claims arising out of the performance of this Agreement, or (2) costs and expenses of this Agreement as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims, or exceptions have been disposed of.

D. The State shall report to the Secretary promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Agreement of which the State has knowledge.

E. In the event of any claim or suit against the Government, on account of any alleged patent or copyright infringement arising out of the performance of this Agreement or out of the use of any supplies furnished or work or services performed hereunder, the State shall furnish to the Government, when requested by the Secretary, all evidence and information in possession of the State pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the State has agreed to indemnify the Government.

(F) The DOE may request, and the State shall, transfer to the custody of DOE copies of certain records maintained by the State pursuant to this Agreement when the DOE determines that the records possess longterm retention value. In order to avoid duplicate recordkeeping, the DOE may make arrangements with the State to retain any records that are continuously needed for joint use.

XII. TERM AND TERMINATION

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- A. This agreement shall expire at such time as the DOE and the State mutually agree in writing that the objectives of the remedial action program have been met, or seven years from the date of promulgation of standards by the Administrator as provided for in this Agreement, whichever is earlier; provided, however, that the parties may extend this Agreement by mutual written consent.
- B. The Secretary, upon written notice to the State, may terminate their Agreement in the event the State is in default because of a material breach which is not cured within 60 days after receipt of a written notice of default from the Secretary.
- C. The State, upon written notice to the Secretary, may terminate this Agreement in the event the DOE is in default because of a material breach which is not cured within 60 days after receipt of a written notice of default from the State.
- D. In the event of termination, all obligations of the terminating party under this Agreement, except those outstanding at the time of termination of the Agreement.
- III - B
- (B) Either DOE or the Commonwealth may terminate this Agreement in whole, or in part, when both parties agree that continuation of the project would not produce beneficial results commensurate with the further expenditure of funds. The two parties shall agree upon the termination conditions, including the effective date and, in the case of partial terminations, the portion to be terminated. Neither party shall incur new obligations for the terminated portion after the effective date. The parties shall cancel as many outstanding obligations as possible. Full credit shall be allowed by each party for noncancelable obligations properly incurred by the other party prior to the termination.
- III - C
- (C) DOE may terminate the Agreement in whole, or in part, at any time before the date of completion, whenever the ^{DOE} Contracting Officer determines that the Commonwealth has failed to comply with the conditions of the Agreement. The ^{DOE} Contracting Officer shall promptly notify the Commonwealth in writing of the determination and the reasons for the termination, together with the effective date of the termination if the Commonwealth does not resume compliance with the conditions

(D) After receipt of a Notice of Termination by either party, the DOE and the State shall close out this Agreement in accordance with the terms and conditions of Article XXIII of this Agreement; Provided, that the DOE may, in its discretion, continue unilateral performance of this Agreement, including performance of the State's responsibilities, until such time as the remedial action contemplated by this Agreement and the Remedial Action Plan is completed.

III-E E. Neither the DOE nor the State shall be considered in default of this Agreement because of delay in performance for reasons beyond its control including, but not restricted to, acts of God or the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or unusually severe weather.

III-G (F) In the event appropriated funds are not available to the State to carry out this Agreement:

1. DOE shall have the right to continue unilateral performance of this Agreement, including performance of the State's responsibilities, without cost to the State, until such time as the remedial action contemplated by this Agreement and the Remedial Action Plan is completed.
2. DOE and the State shall close out this Agreement pursuant to Article XXIII^{all}/hereof.

III-H (G) In the event appropriated funds are not available to the DOE to carry out the Act or this Agreement, the DOE and the State shall close out this Agreement pursuant to Article XXIII of this Agreement and such other procedures as mutually agreed to in writing by the parties.

XIII. DISPUTES

Any disputes between parties arising under this Agreement not disposed of by mutual consent may be presented by either party to the U.S. District Court for the Middle District of Pennsylvania. Each party hereby agrees to subject itself and this Agreement to the jurisdiction of said Court.

XX (A) Except as otherwise provided in this Agreement, any dispute concerning a question of fact arising under this Agreement which is not disposed of by Agreement shall be decided by the DOE Contracting Officer, who shall reduce his decision to writing and mail, or otherwise furnish a copy thereof to the [Participant]. The decision of the DOE Contracting Officer shall be final and conclusive unless within 60 days from date of receipt of such copy, the [Participant] mails, or delivers a written notice of appeal to the Department of Energy Financial Assistance Appeals Board in accordance with 10 CFR Part 1024 (See Rule 1). The decision of the Department of Energy Financial Assistance Appeals Board shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessary to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this clause, the [Participant] shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the [Participant] and the Government shall proceed diligently with the performance of the Agreement and in accordance with the DOE Contracting Officer's decision.

(B) This "Disputes Clause" does not preclude consideration of law questions in connection with decisions provided for in paragraph (A) above; provided, that nothing in this Agreement shall be construed as making final the decision of any administrative official, representative, or board, based on a question of law.

XIV. EFFECTIVE DATE

This Agreement shall become effective upon the date of concurrence by the Commission and shall remain effective until such time as terminated by the parties in accordance with Article XII, above.

XV. PROCUREMENT AND SUBCONTRACTING

I-C Unless otherwise agreed by the DOE and the State in writing, and except as provided in this Agreement, the DOE shall procure, in accordance with applicable DOE procurement policies and procedures and existing Federal law, all supplies, equipment, construction and services necessary for the performance of this Agreement and the Remedial Action Plan. The applicable standards and guidelines for any procurement by the State of supplies, equipment, construction and services pursuant to this Agreement shall be those provided in Attachment O to the Office of Management and Budget (OMB) Circular A-102, as that attachment was revised by OMB on August 1, 1979, and published in the Federal Register, Volume 44, No. 159, August 15, 1979, pp 47874-47878, except as provided in Article XXVI below, and provided that such standards shall not apply to the State's acquisition of property pursuant to Article V of this Agreement.

XVI. ESTIMATED COST

The total estimated cost of this project will be determined when the Remedial Action Plan (Appendix B) is approved by the parties following the Environmental Protection Agency's promulgation of standards, pursuant to Section 275 of the Atomic Energy Act of 1954, as amended.

If the Secretary determines that the State should acquire title to or a lesser interest in real property, adequate funds will be obligated to pay for the Federal share of such real property.

No Federal funds are obligated by the execution of this Cooperative Agreement; however, subject to the availability of appropriated funds, DOE agrees to pay ninety (90) percent, and the State agrees to pay 10 percent of allowable costs required by the Remedial Action Plan provided:

- (1) the Plan has been approved by DOE, the State and the Commission;
- (2) the costs of such remedial action do not exceed amounts to be mutually agreed upon in the Remedial Action Plan as amended from time to time; and
- (3) the Pennsylvania General Assembly has appropriated, or the State has otherwise allocated sufficient funds to cover its annual share of the remedial action, or other expenses under this Agreement.

DOE further promises to pay ninety (90) percent of allowable costs associated with acquisition of real property and residual radioactive materials in accordance with Article V hereof, relocation payments in connection with acquisition or remedial action, and transfer, by the State to DOE, of title to real property and residual radioactive materials, provided:

- (1) DOE has approved the agreement for the purchase of the property pursuant to Article XVIII of this Agreement, and
- (2) The Pennsylvania General Assembly has appropriated or the State has otherwise allocated sufficient funds to cover its share of the

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XVII. REPORTING REQUIREMENTS

- (A) DOE shall inform the State of the status of activities under this Agreement as major milestones are reached but in no event less frequently than quarterly.
- (B) The State shall submit to the DOE Contracting Officer, as directed, progress and financial reports of its activities in the acquisition of real property under this Agreement.
- (C) The State shall submit annually, commencing one year from the effective date of this Agreement, to the DOE Contracting Officer, OMB Standard Form 269, a Financial Status Report, a copy of which is attached as Appendix E, paid to the State by DOE pursuant to this Agreement. DOE shall prescribe whether the reports shall be on a cash or accrual basis. If the DOE requires accrual information and the State's accounting records are not normally kept on the accrual basis, the State shall not be required to convert its accounting system but shall develop such accrual information through an analysis of the documentation on hand. The State shall submit a final Financial Status Report upon close out of this Agreement in accordance with Article XXIII hereof. The State shall submit the OMB Standard Form 269, original and two copies, to the DOE Contracting Officer no later than 90 days after the end of the specified reporting period for the annual and final reports. Reasonable extensions to reporting due dates may be granted by the DOE Contracting Officer upon written request of the State.
- (D) The State shall supply to DOE such additional financial information as is requested in writing by DOE to comply with Congressional requirements.

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(E) All standard forms required to be submitted by the State pursuant to this Article shall be provided to the State by the DOE Contracting Officer upon request.

XXVII
(F) The reports or other information to be submitted by the State to the DOE ~~Government~~ shall be submitted without restricted markings or other conditions relating to use or disclosure.

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XVIII. PROJECT MANAGEMENT

II-D-6
(A) Real Property Acquisition Phase of the Project

Pending the promulgation of the EPA standards and the development of the Remedial Action Plan, the State may be authorized by the Secretary to initiate action leading to the acquisition of real property pursuant to Article V of this Agreement. The State will not execute the acquisition Agreement or otherwise acquire title to any real property without written authorization of the DOE Contracting Officer.

II-D-3
(B) Remedial Action Plan Development Phase

DOE will develop a Remedial Action Plan following the promulgation by EPA of standards of general application pursuant to Section 275 of the Atomic Energy Act of 1954 as amended, and will submit it to the State and the Commission for review and comment. This plan will include a detailed cost estimate, which will be used to project the financial liabilities of the parties if they choose to proceed with the remedial actions. Prior to implementation of the Remedial Action Plan, DOE and the State will endeavor to insure sufficient authorization of funds from the Congress and Pennsylvania General Assembly so as to permit the completion of the work under the Plan. Remedial actions will not begin until both parties and the Commission have accepted the Remedial Action Plan, and the State and DOE have obligated sufficient funds to complete the scope of work projected for not less than the first fiscal year of the implementation of the Remedial Action Plan.

II-D-5
(C) Remedial Action Phase

Unless otherwise agreed by the DOE and the State in writing, DOE

will perform all remedial actions under the direction of a DOE Site Representative pursuant to the Remedial Action Plan, keeping the State advised as to the status of major milestones and cost incurred.

XIX. LOCAL ADVISORY COMMITTEES

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The DOE shall not be a member of any local advisory committees established in connection with the remedial action to be performed under this Agreement for the purpose of providing information to and receiving information from the citizens of the localities affected by such remedial action. The DOE shall however, make every reasonable effort to interface with any such committee to the extent requested by the State or the Committee. No costs associated with any advisory committee so established shall be allowable costs under this Agreement.

XX. OTHER REMEDIES

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Nothing in this Agreement shall prevent the Secretary from enforcing any provision of Title I of the Act; any regulation promulgated thereunder, or any provision of this Agreement, by injunction or other equitable remedy, or as otherwise provided by Section 110 of the Act.

XXI. ENTIRE AGREEMENT

XXIII

This written Agreement constitutes the entire Agreement of the parties hereto. No representations, promises, terms, conditions, or obligations whatsoever referring to the subject matter hereof, other than those expressly set forth herein, shall be of any binding legal force or effect whatsoever.

XXII. CONCURRENCES AND CONSULTATIONS

Wherever in this Agreement or in the Act a concurrence from or consultation with another Government agency is required, the DOE shall seek such concurrence and be responsible for undertaking such consultation.

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XXIII. CLOSEOUT PROCEDURES

XIV (A) As of the date of receipt of a Notice of Termination pursuant to Article XII of this Agreement, or on the date of expiration of the period of performance or failure of one party to appropriate funds as provided in Article XII of this Agreement:

1. The parties shall:

- a. Stop performance under this Agreement on the date and to the extent specified in the Notice of Termination or on the date when the period of performance expires;
- b. Place no further orders and make no further subcontracts or other Agreements, for materials, service or property except as may be necessary for completion of such portion of the work under this Agreement as is not terminated by any Notice of Termination;
- c. Terminate all orders, subcontracts, or other agreements entered into in performing this Agreement, to the extent that they relate to the performance of work terminated by the Notice of Termination or terminated by the expiration of the period of performance of this Agreement;
- d. Settle all outstanding liabilities and all claims arising out of such termination of orders, subcontracts and agreements, the cost of which would be reimbursable, in whole or in part, as a project cost in accordance with the provisions of this Agreement;
- e. In the event of partial termination, complete performance of such part of the work which is not terminated by the Notice of Termination shall be completed;
- f. Take such action as may be necessary or as the DOE Contracting Officer may direct for the protection and preservation of the

property related to this Agreement which is in the possession of the State and in which the Government has or may acquire an interest.

2. The DOE shall, upon written request by the State, make prompt payment to the State pursuant to Article III of this Agreement, for any outstanding reimbursable allowable costs incurred by the State not yet paid by the DOE as required by this Agreement.
3. The State shall, upon written request by the DOE, make prompt payment to the DOE pursuant to Article IV of this Agreement, for its outstanding share of costs incurred by the DOE and the State in performance of this Agreement.
4. The State shall immediately refund to the DOE any balance of cash advanced to the State that is not authorized by the DOE Contracting Officer to be retained by the State.
5. The State shall provide to DOE, within 90 days after either the date of expiration of the period of performance, or the date of termination of performance, or at such time designated by the DOE Contracting Officer, all financial performance, and other reports required pursuant to this Agreement. The DOE Contracting Officer may grant reasonable extensions when requested by the State. An independent audit may be requested by either party.
6. In the event a final audit has not been performed prior to closeout of this Agreement, each party shall, until such final audit is performed, retain the right to recover any outstanding share of allowable costs from the other party.
7. As directed by the DOE Contracting Officer in writing, transfer to the Government ^{of} property acquired by the State pursuant to this Agreement.

Upon termination or at the expiration of the period of performance, the State shall proceed immediately with the performance of the above obligations not withstanding any delay in determining or adjusting the amount of the allowable project costs.

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order

XXIV. STATE FINANCIAL MANAGEMENT SYSTEM

The State shall assure that its financial management system provides for:

- VII
- (A) Accurate, current and complete disclosure of the financial results of the State's participation in the remedial action program, carried out pursuant to this Agreement and the Remedial Action Plan. Should the DOE Contracting Officer require the State to report on an accrual basis, the State shall not be required to establish an accrual accounting system but shall develop such accrual data on required reports on the basis of an analysis of the documentation on hand.
 - (B) Records that identify adequately the source and application of funds for activities supported pursuant to this Agreement. These records shall contain information pertaining to authorizations, obligations, unobligated balances, assets, liabilities, outlays, and program income.
 - (C) Effective control over and accountability for all funds, property, and other assets. The State shall adequately safeguard all such assets and shall assure that they are used solely for authorized purposes.
 - (D) Comparison of actual outlays with budgeted or otherwise authorized amounts.
 - (E) Procedures to minimize the time elapsing between transfer of funds from the U.S. Treasury and the disbursement by the State, whenever funds are advanced by the Government.
 - (F) Procedures for identifying the reasonableness of costs.
 - (G) Accounting records that are supported by adequate and reasonable source documentation.
 - (H) Examinations in the form of audits which meet the requirements set

forth in Office of Management and Budget (OMB) Circular A-102, Attachment P, as that Attachment was revised by OMB, effective October 22, 1979, and published in the Federal Register, Volume 45, No. 65, April 2, 1980, pp. 21875-21878, and which are in accordance with the "Guidelines for Financial and Compliance Audits of Federal Assisted Programs," issued by the United States General Accounting Office.

- (1) A systematic method to assure timely and appropriate resolution of audit findings and recommendations.

XXV. CASH DEPOSITORIES

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Any money advanced to the State under the Agreement must be deposited in a bank with Federal Deposit Insurance Corporation (FDIC) insurance coverage and any balance exceeding the FDIC coverage must be collaterally secured in a manner approved by the Contracting Officer.

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XXVI. ORDER OF PRECEDENCE

In the event of an inconsistency between provisions of this Agreement, the inconsistency shall be resolved by giving precedence as follows:

- (a) Agreement Articles;
- (b) Remedial Action Plan (when executed);
- (c) Other provisions of the Agreement, whether incorporated by reference or otherwise.

XXIV

Notwithstanding this order of precedence, any inconsistencies between the original Cooperative Agreement and this Appendix shall be resolved by giving effect to the provisions of this Appendix.

VII. ADDITIONAL GENERAL PROVISIONS

To the extent and only to the extent that the State is authorized by the DOE Contracting Officer and agrees to procure supplies, equipment, construction, or services under this Agreement each of the following clauses are applicable:

(A) Inspection

The DOE through any authorized representative, has the right at all reasonable times, to inspect, or otherwise evaluate the work performed or being performed hereunder and the premises in which it is being performed. If any inspection, or evaluation is made by the DOE on the premises of the State or a subcontractor, the State shall provide and shall require ^{its} subcontractor to provide all reasonable facilities and assistance for the safety and convenience of the DOE representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work.

(B) Assignment of Claims

(a) Pursuant to the provisions of the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), if this Agreement provides for payments aggregating \$1,000 or more, claims for money due or to become due the State from the DOE under this Agreement may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Any such assignment or reassignment shall cover all amounts payable under this Agreement and not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing. Unless otherwise provided in this Agreement, payments

deleted

Appendix B

-(1)

to an assignee of any monies due or to become due under this Agreement shall not, to the extent provided in said Act, as amended, be subject to reduction or setoff.

(C) Convict-Labor

In connection with the performance of work under this Agreement, the State agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1965 (18 U.S.C. 4082(c)(2)) and Executive Order 11755, December 29, 1973.

(D) Audit

(a) Examination of Costs. The State shall maintain, and the DOE Contracting Officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times of the State's plants, or such parts thereof, as may be engaged in the performance of this Agreement as to cost or pricing data submitted by the State.

(b) Cost or pricing data. If the State submitted cost or pricing data in connection with the pricing of this Agreement or any other change or modification thereto, unless such pricing was based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or process set by law or regulation, the DOE Contracting Officer or his representatives who are employees of the United States Government shall have the right to examine all books, records, documents, and other data of the State

ppendix B
- (2)

VIII

related to the negotiation, pricing or performance of such Agreement, change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost of pricing data submitted. Additionally, in the case of pricing any change or modification exceeding \$1,000,000 to formally advertised agreements, the Comptroller General of the United States or his representatives who are employees of the United States Government shall have such rights. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projects used therein.

(c) Availability

The materials described in (a) and (b) above, shall be made available at the office of the State, at all reasonable times, for inspection, audit or reproduction, until the expiration of three years from the date of final payment under this Agreement or such lesser time specified in Part 1-20 of the Federal Procurement Regulations (41 CFR Part 1-20) and for such longer period, if any, as is required by applicable statute, or by other clauses of this contract, or by (1) and (2) below:

- (1) If this Agreement is completely or partially terminated, the records relating to the work terminated shall be made available for a period of three years from the date of any resulting final settlement.
- (2) Records which relate to appeals or disputes or litigation or the settlement of claims arising out of the performance of this Agreement, shall be made available until such appeals, litigation, or claims have been disposed of.

- (d) The State shall insert a clause containing all the provisions of this clause, including this paragraph (d); in all subcontracts hereunder except altered as necessary for proper identification of the contracting parties and the DOE Contracting Officer under the Cooperative Agreement.

(E) Clean Air and Water

The State agrees as follows:

600. B
.(3)
- (1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et. seq., as amended by P.L. 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this Agreement.
 - (2) That no portion of the work required by this Agreement will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this Agreement was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.
 - (3) To use his best efforts to comply with clean air standards and clean water standards at the facility in which the Agreement is being performed.
 - (4) To insert the substance of this clause into any nonexempt contract, including this paragraph (2) (4).

The terms used in this provision have the following meanings:

- (1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604).
- (2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S. 1251, et. seq., as amended by P.L. 92-500).
- (3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under Section 111(c) or Section 111(d), respectively, of the Air Act (42 U.S.C. 1857(c)-6(c) or (d)), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).
- (4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).

- (5) The term "compliance" means compliance with clean air or water standards during and after remedial action. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency on an air or water pollution control agency in accordance with the requirements of the Air Act or Water and regulations issued pursuant thereto.
- (6) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a participant or subcontractor, to be utilized in the performance of an agreement or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

f. Flood Insurance

App. B
A-(4)
State will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976.

Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards and provisions prescribed by the Federal Insurance Administrator in

... will be complied with

(G) Permits and Licenses

App. A
A-(5)

Except as otherwise agreed to by the DOE Contracting Officer, the State shall procure all necessary permits or licenses and abide by all applicable laws, regulations and ordinances of the United States and of the State territory, and political subdivision and which the work under this Agreement is performed.

(H) Authorization and Consent

App. A
A-(6)

The DOE hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this Agreement or any part hereof or any amendment hereto or any subcontract hereunder (including all lower-tier subcontracts).

(I) Utilization of Labor Surplus Area Concerns

Deleted.

(a) It is the policy of the DOE to award agreements to labor surplus area concerns that agree to perform substantially in labor surplus areas, where this can be done consistent with the efficient performance of the Agreement and at prices no higher than are obtainable elsewhere. The State agrees to use its best efforts to place his subcontracts in accordance with this policy.

(b) In complying with paragraph (a) of this clause, the State in placing his subcontracts shall observe the following order of preference: (1) small business concerns that are labor surplus area concerns, (2) other small business concerns, and (3) other labor surplus area concerns.

(c) (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.

- (2) The term "labor surplus area concerns" means a concern that together with its first-tier subcontractors will perform substantially in labor surplus areas.
- (3) The term "perform substantially in a labor surplus area" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the contract price.

(j) Labor Surplus Area Subcontracting Program (applicable if the Agreement exceed \$500,000)

- Deleted*
- (a) The State agrees to establish and conduct a program which will encourage labor surplus area concerns to compete for subcontracts within their capabilities. In this connection, the State shall:
 - (1) Designate a liaison officer who will (i) maintain liaison with duly authorized representatives of the Government on labor surplus area matters, (ii) supervise compliance with the Utilization of Concerns in Labor Surplus Area clause, and (iii) administer the State's "Labor Surplus Area Subcontracting Program";
 - (2) Provide adequate and timely consideration of the potentialities of labor surplus area concerns in all "make-or-buy" decisions;
 - (3) Assure that labor surplus area concerns will have an equitable opportunity to compete for subcontracts particularly by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of labor surplus area concerns;

- (4) Maintain records showing the procedures which have been adopted to comply with the policies set forth in this clause and report subcontract awards (see 41 CFR 1-16.804-5 regarding use of Optional Form 61). Records maintained pursuant to this clause will be kept available for review by the DOE until the expiration of one year after the award of this Agreement, or for such longer period as may be required by any other clause of this Agreement or by applicable law or regulations; and
 - (5) Include the Utilization of Concerns in Labor Surplus Areas clause in subcontracts which offer substantially labor surplus area subcontracting opportunities.
- (b) (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.
- (2) The term "concern located in a labor surplus area" means a labor surplus area concern.
- (3) The term "labor surplus area concerns" means a concern that, together with its first tier subcontractors, will perform substantially in labor surplus areas.
- (4) The term "perform substantially in labor surplus areas" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the Agreement price.
- (c) The State further agrees to insert, in any subcontract hereunder which may exceed \$500,000 and which contains the Utilization of Concerns in Labor Surplus Areas clause, provisions which shall conform substantially to the language of this clause, including this paragraph (c), and to notify the DOE Contracting Officer

(K) Limitation of Funds (Cost-Sharing)

- VI
- (a) It is estimated that the cost to the DOE for the performance of this Agreement will not exceed the estimated cost to the DOE set forth in Article XVI, Estimated Cost, and the State agrees to use its best efforts to perform the work specified in the Agreement and all obligations under this Agreement within such estimated cost to the DOE plus the share of the cost of performance agreed to be borne by the State, as set forth in the Agreement.
- (b) The amount presently available for payment by the DOE and allotted to this Agreement, the items covered thereby, the DOE's share of the cost thereof, and the period of performance which it is estimated the allotted amount will cover, are specified in Article XVI, Estimated Cost. It is contemplated that from time to time additional funds will be allotted to this Agreement up to the full estimated cost to the DOE set forth in Article XVI, Estimated Cost. The State agrees to perform or have performed work on this Agreement up to the point at which the total amount paid and payable by the DOE pursuant to the terms of this Agreement approximates but does not exceed the total amount actually allotted by the DOE to the contract.
- (c) If at any time the State has reason to believe that the costs which it expects to incur in the performance of this Agreement in the next succeeding 60 days, when added to all costs previously incurred, will exceed 75 percent of the total of the amount then allotted to the Agreement by the DOE plus the State's corresponding share, the State shall notify the DOE Contracting Officer in writing to that effect. The notice shall state the estimated

amount of additional funds required to continue performance for the period set forth in the Agreement. Sixty days prior to the end of the period specified in the Agreement the State will advise the DOE Contracting Officer in writing as to the estimated amount of additional funds, if any, that will be required for the timely performance of the work under the Agreement or for such further period as may be specified in the Agreement or otherwise agreed to by the parties. If, after such notification, additional funds are not allotted by the end of the period set forth in the Agreement or an agreed date substituted therefor, the DOE Contracting Officer will, upon written request by the State, terminate this Agreement pursuant to the provisions of Article XII, Term and Termination, on such date. If the State, in the exercise of its reasonable judgment, estimates that the funds available will allow the State to continue to discharge its obligations hereunder for a period extending beyond such date, the State shall specify the later date in its request and the DOE Contracting Officer, in his discretion, may terminate on that later date.

- (d) Except as required by other provisions of this Agreement specifically citing and stated to be an exception from this clause, the DOE shall not be obligated to reimburse the State for costs incurred in excess of the amount from time to time allotted by the DOE to the Agreement, and the State shall not be obligated to continue performance under the Agreement (including actions under the termination clause) or otherwise to incur costs in excess of the total of the amount then allotted to the Agreement by the DOE plus the State's corresponding share, unless and until the DOE Contracting Officer has notified the State in

writing that the amount allotted by the DOE has been increased and has specified in such notice an increased amount constituting the total amount then allotted by the DOE to the Agreement.

To the extent the total of the amount allotted by the DOE plus the State's corresponding share exceeds the estimated cost set forth in Article XVI, Estimated Costs, such estimated cost shall be correspondently increased. Any increase in such estimated costs shall be allocated in accordance with the formula set forth in Article XVI, estimated costs, governing such increases.

No notice, communication, or representation in any other form or from any person other than the DOE Contracting Officer shall affect the amount allotted by the DOE to this Agreement. In the absence of the specified notice, the DOE shall not be obligated to reimburse the State for any costs in excess of the total amount then allotted by the DOE to the Agreement, whether those excess costs were incurred during the course of the Agreement or as a result of termination. When and to the extent that the amount allotted by the DOE to the Agreement has been increased, any costs incurred by the State in excess of the total of the amount previously allotted by the DOE plus the State's corresponding share shall be allowable to the same extent and in the same percentage as if such costs had been incurred after such increase in the amount allotted; unless the DOE Contracting Officer issues a termination or other notice and directs that the increase is solely for the purpose of covering termination or other specified expenses.

- (e) Nothing in this clause shall affect the right of the DOE to terminate this Agreement. In the event this Agreement is

terminated, the DOE and the State shall negotiate an equitable distribution of all property produced or purchased under the Agreement based upon the share of costs incurred by each.

(L) Safety and Health

- App. B
A-(7)
- (a) The State shall take all reasonable precautions in the performance of the work under this Agreement to protect the health and assure the safety of employees and the public. The State shall comply with all applicable Federal, State, and local health and safety regulations and requirements including but not limited to those established pursuant to the Occupational Safety and Health Act and with any additional safety and health standards and requirements (including reporting requirements) established by DOE which is to include compliance with DOE Order 5461.1, Safety Analysis and Review System.
- (b) In the event that the State fails to comply with said regulations and requirements, the DOE Contracting Officer may, without prejudice to any other legal or contractual rights of DOE, issue an order stopping all or any part of the work; thereafter a start order for resumption of work may be issued at the discretion of the DOE Contracting Officer. The State shall make no claim for an extension of time or for an equitable adjustment, compensation or damages by reason of or in connection with such work stoppage.

XXVIII. PROVISIONS RELATED TO DOE PERFORMANCE

If DOE procures supplies, equipment, construction of services under this Agreement, each of the following clauses is applicable:

(A) Inspection

The State through any authorized representative, has the right at all reasonable times, to inspect, or otherwise evaluate the work performed or being performed hereunder in which it is being performed.

If any inspection, or evaluation is made by the State on the premises of the DOE, the DOE shall provide and shall require his contractors to provide all reasonable facilities and assistance for the safety and convenience of the State representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work.

(B) Clean Air and Water

The DOE agrees as follows:

- (1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et. seq., as amended by P.L. 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this Agreement.
- (2) That no portion of the work required by this Agreement will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this Agreement was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

- (3) To use his best efforts to comply with clean air standards and clean water standards at the facility in which the Agreement is being performed.
- (4) To insert the substance of this clause into any nonexempt contract, including this paragraph (2) (4).

The terms used in this provision has the following meanings:

- (1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604).
- (2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, et. seq., as amended by P.L. 92-500).
- (3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under Section 111(c) or Section 111(d), respectively, of the Air Act (42 U.S.C. 1857(c)-6(c) or (d)), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).
- (4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).

(5) The term "compliance" means compliance with clean air or water standards during and after remedial action. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirements of the Air Act or Water and regulations issued pursuant thereto.

(6) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a participant or subcontractor, to be utilized in the performance of an agreement or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

(C) Permits and Licenses

Except as otherwise agreed to by the State Contracting Officer, the DOE or its contractors shall procure all necessary permits or licenses and abide by all applicable laws, regulations and ordinances of the United States and of the State territory, and political subdivision and which the work under this Agreement is performed.

(D) Safety and Health

The DOE shall take all reasonable precautions in the performance of the work under this Agreement to protect the health and assure the safety of employees and the public. The DOE shall comply with all applicable Federal, State, and local health and safety regulations

APP B
B-3

APP B
3-4

and requirements including but not limited to those established pursuant to the Occupational Safety and Health Act and with any additional safety and health standards and requirements (including reporting requirements) established by DOE which is to include compliance with DOE Order 5481.1, Safety Analysis and Review System.

IN WITNESS WHEREOF, the parties have executed this Appendix in
several counterparts.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

ATTEST:

Lucy M. Cunko

Clifford L. Jones
CLIFFORD L. JONES, Secretary

DATE

11-21-70

THE UNITED STATES OF AMERICA
BY: DEPARTMENT OF ENERGY

BY:

TITLE: Contracting Officer

DATE:

11-21-70

CONCURRENCE:

NUCLEAR REGULATORY COMMISSION

BY:

TITLE:

DATE:

APPROVED AS TO LEGALITY & FORM:

William C. Caruth
ASSISTANT ATTORNEY GENERAL

APPROVED AS TO LEGALITY & FORM:

William C. Caruth
DEPUTY ATTORNEY GENERAL

APPROVED:

Robert D. Bittencourt
SECRETARY OF BUDGET AND ADMINISTRATION

APPROVED:

GOVERNOR

Richard L. Daley

DELETE
per II-D-3-a

REMEDIAL ACTION PLAN

APPENDIX B

SERVICES OTHER THAN PERSONAL

DAR VELOST FINANZ

LOWELL NO.

CONTRACT NUMBER AND DATE

PAID BY

REDUCTION NUMBER AND DATE

DATE BY/ORD RECEIVED

DISCOUNT TERMS

PATH'S ACCOUNT NUMBER

500 5000

WEIGHT

CONFIDENTIAL A/L 12-00000

AYER'S
SAFE
AND
LOCK

| NUMBER OF DATE ORDER | DATE OF DELIVERY OR SERVICE | ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) | QUAN- TITY | UNIT PRICE | | AMOUNT |
|----------------------------|-----------------------------------|--|---------------|------------|-----|--------|
| | | | | COST | PER | (*) |
| | | | | | | |

production (1974) of 100,000 tons

(Payee must NOT use the space below)

TOTAL

| | | | |
|----------|--------------|------------------------------|--------------|
| AGENT: | APPROVED FOR | EXCHANGE RATE | DIFFERENCES: |
| COMPLETE | = \$ | = \$1.00 | |
| PARTIAL | BY | | |
| TOTAL | | | |
| PROGRESS | TITLE | Amount verified; correct for | |
| ADVANCE | | (Signature or initials) | |

and the authority vested in me, I certify that this voucher is correct and proper for payment.

(Enc)

(Authorized Certifying Officer) :

(Title)

ACCOUNTING CLASSIFICATION

| | | | |
|--------------|-----------------------------------|--------------|-------------------|
| CHECK NUMBER | ON TREASURER OF THE UNITED STATES | CHECK NUMBER | ON (Name of bank) |
| CASH | DATE | PAYEE'S | |

| | |
|---|-------------------------|
| <p>1. stated in foreign currency, insert name of currency</p> <p>2. jointly or jointly and individually to approve are combined in one person, one signature only is necessary; either approving officer will sign in the space provided, over his official title</p> <p>3. if a contract is executed in the name of a company or corporation, the name of the person writing the company name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per Smith, Secretary" or "President", as the case may be.</p> | <p>PER</p> <p>TITLE</p> |
|---|-------------------------|

03529

[illegible]

2-14. ELDER J

STACONAS POWER SUPPLY
Manufactured by STACONAS of Kalamazoo, Michigan

Circulars No. A-102 and
A-110

NOTICES

INSTRUCTIONS

Please type or print legibly. Items 1, 3, 5, 9, 10, 11c, 11e, 11f, 11g, 11i, 12 and 13 are self-explanatory; specific instructions for other items are as follows:

Entry

Item

Entry

1. Indicate whether request is prepared on cash or accrued expenditure basis. All requests for advances shall be prepared on a cash basis.

2. Enter the Federal grant number, or other identifying number assigned by the Federal sponsoring agency. If the advance or reimbursement is for more than one grant or other agreement, insert N/A; then, show the aggregate amounts. On a separate sheet, list each grant or agreement number and the Federal share of outlays made against the grant or agreement.

3. Enter the employer identification number assigned by the U.S. Internal Revenue Service, or the FICE (institution) code if requested by the Federal agency.

4. This space is reserved for an account number or other identifying number that may be assigned by the recipient.

5. Enter the month, day, and year for the beginning and ending of the period covered in this request. If the request is for an advance or for both an advance and reimbursement, show the period that the advance will cover. If the request is for reimbursement, show the period for which the reimbursement is requested.

6a. The Federal sponsoring agencies have the option of requiring recipients to complete items 11 or 12, but not both. Item 12 should be used when only a minimum amount of information is needed to make an advance and outlay information contained in item 11 can be obtained in a timely manner from other reports.

The purpose of the vertical columns (a), (b), and (c), is to provide space for separate cost breakdowns when a project has been planned and budgeted by program, function, or activity. If additional columns are needed,

use as many additional forms as needed and indicate page number in space provided in upper right; however, the summary totals of all programs, functions, or activities should be shown in the "total" column on the first page.

11a. Enter in "as of date", the month, day, and year of the ending of the accounting period to which this amount applies. Enter program outlays to date (net of refunds, rebates, and discounts), in the appropriate columns. For requests prepared on a cash basis, outlays are the sum of actual cash disbursements for goods and services, the amount of indirect expenses charged, the value of in-kind contributions applied, and the amount of cash advances and payments made to subcontractors and subrecipients. For requests prepared on an accrued expenditure basis, outlays are the sum of the actual cash disbursements, the amount of indirect expenses incurred, and the net increase (or decrease) in the amounts owed by the recipient for goods and other property received and for services performed by employees, contractors, subgrantees and other payees.

11b. Enter the cumulative cash income received to date. If requests are prepared on a cash basis. For requests prepared on an accrued expenditure basis, enter the cumulative income earned to date. Under either basis, enter only the amount applicable to program income that was required to be used for the project or program by the terms of the grant or other agreement.

11d. Only when making requests for advance payments, enter the total estimated amount of cash outlays that will be made during the period covered by the advance.

13. Complete the certification before submitting this request.

APPENDIX E

•

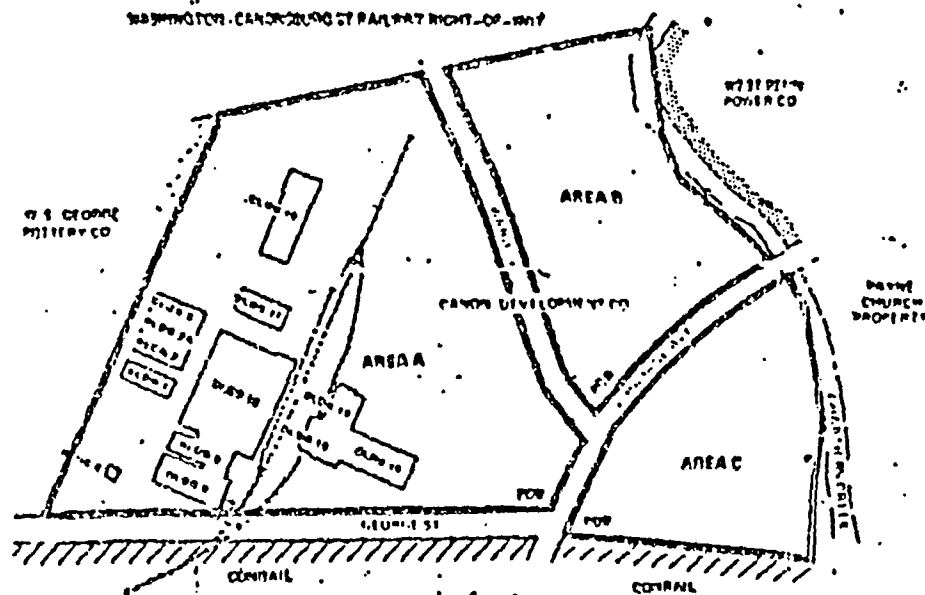
Circulars No. A-102 and
A-110

INSTRUCTIONS

Please type or print legibly. Items 1, 2, 3, 6, 7, 9, 10d, 10e, 10g, 10i, 10j, 11a, and 12 are self-explanatory. Specific instructions for other items are as follows:

- | Item | Entry | Item | Entry |
|------|--|------|--|
| 4 | Enter the employer identification number assigned by the U.S. Internal Revenue Service or FICE (Institution) code, if required by the Federal sponsoring agency. | 10c | Enter the amount of all program income realized in this period that is required by the terms and conditions of the Federal award to be deducted from total project costs. For reports prepared on a cash basis, enter the amount of cash income received during the reporting period. For reports prepared on an accrual basis, enter the amount of income earned since the beginning of the reporting period. When the terms or conditions allow program income to be added to the total award, explain in remarks, the source, amount and disposition of the income. |
| 5 | This space is reserved for an account number or other identifying numbers that may be assigned by the recipient. | 10d | Enter amount pertaining to the non-Federal share of program outlays included in the amount on line e. |
| 6 | Enter the month, day, and year of the beginning and ending of this project period. For formula grants that are not awarded on a project basis, show the grant period. | 10h | Enter total amount of unliquidated obligations for this project or program, including unliquidated obligations to subgrantees and contractors. Unliquidated obligations are: Cash basis—obligations incurred but not paid; Accrued expenditures basis—obligations incurred but for which an outlay has not been recorded. Do not include any amounts that have been included on lines a through g. On the final report, line h should have a zero balance. |
| 10 | The purpose of vertical columns (a) through (f) is to provide financial data for each program, function, and activity in the budget as approved by the Federal sponsoring agency. If additional columns are needed, use as many additional forms as needed and indicate page number in space provided in upper right; however, the totals of all programs, functions or activities should be shown in column (a) of the first page. For agreements pertaining to several divisions of Federal Domestic Assistance programs that do not require a further functional or activity classification breakdown, enter under column (a) through (f) the title of the program. For grants or other assistance agreements containing multiple programs where one or more programs require a further breakdown by function or activity, use a separate form for each program showing the applicable functions or activities in the separate columns. For grants or other assistance agreements containing several functions or activities which are funded from several programs, prepare a separate form for each activity or function when requested by the Federal sponsoring agency. | 10i | Enter the Federal share of unliquidated obligations shown on line h. The amount shown on this line should be the difference between the amounts on lines h and L. |
| 10a | Enter the net outlay. This amount should be the same as the amount reported in Line 10e of the last report. If there has been an adjustment to the amount shown previously, please attach explanation. Show zero if this is the initial report. | 10j | Enter the sum of the amounts shown on lines g and i. If the report is final the report should not contain any unliquidated obligations. |
| 10b | Enter the total gross program outlays (less rebates, refunds, and other discounts) for this report period, including disbursements of cash realized as program income. For reports that are prepared on a cash basis, outlays are the sum of actual cash disbursements for goods and services, the amount of indirect expense charged, the value of in-kind contributions applied, and the amount of cash advances and payments made to contractors and subgrantees. For reports prepared on an accrual expenditure basis, outlays are the sum of actual cash disbursements, the amount of indirect expense incurred, the value of in-kind contributions applied, and the net increase (or decrease) in the amounts owed by the recipient for goods and other property received and for services performed by employees, contractors, subgrantees, and other parties. | 10m | Enter the unobligated balance of Federal funds. This amount should be the difference between lines k and L. |
| | | 11a | Enter rate in effect during the reporting period. |
| | | 11c | Enter amount of the base to which the rate was applied. |
| | | 11d | Enter total amount of indirect cost charged during the report period. |
| | | 11e | Enter amount of the Federal share charged during the report period. |
| | | | If more than one rate was applied during the project period, include a separate schedule showing bases against which the indirect cost rates were applied, the respective indirect rates the month, day, and year the indirect rates were in effect, amounts of indirect expense charged to the project, and the Federal share of indirect expense charged to the project to date. |

(12)



PARCEL 1

COMMENCED AT A POINT AT THE INTERSECTION OF THE EAST LINE OF MAIN STREET AND THE WEST LINE OF STANBROOK AVENUE, THENCE ALONG THE EAST LINE OF MAIN STREET NORTH 89 DEGREES 15 MINUTES, 20 SECONDS TO A POINT 110 FEET TO THE SOUTH END OF THE NATIONAL CANTONBURG STREET RAILWAY, THENCE ALONG SAID EAST LINE OF MAIN STREET NORTH 89 DEGREES 15 MINUTES, 20 SECONDS TO THE WEST LINE OF STANBROOK AVENUE, THENCE ALONG THE WEST LINE OF STANBROOK AVENUE SOUTH 89 DEGREES 15 MINUTES TO THE POINT OF BEGINNING.

CONTAINS 12.8 ACRES MORE OR LESS

PARCEL 2

COMMENCED AT A POINT AT THE INTERSECTION OF THE EAST LINE OF MAIN STREET AND THE WEST LINE OF STANBROOK AVENUE, THENCE ALONG THE EAST LINE OF MAIN STREET NORTH 89 DEGREES 15 MINUTES, 20 SECONDS TO A POINT 110 FEET TO THE SOUTH END OF THE NATIONAL CANTONBURG STREET RAILWAY, THENCE ALONG SAID EAST LINE OF MAIN STREET NORTH 89 DEGREES 15 MINUTES, 20 SECONDS TO THE WEST LINE OF STANBROOK AVENUE, THENCE ALONG THE WEST LINE OF STANBROOK AVENUE SOUTH 89 DEGREES 15 MINUTES TO THE POINT OF BEGINNING.

CONTAINS 12.8 ACRES MORE OR LESS

PARCEL 3

COMMENCED AT A POINT AT THE INTERSECTION OF THE EAST LINE OF MAIN STREET AND THE WEST LINE OF STANBROOK AVENUE, THENCE ALONG THE EAST LINE OF STANBROOK AVENUE NORTH 89 DEGREES 15 MINUTES, 20 SECONDS TO A POINT 110 FEET TO THE SOUTH END OF THE NATIONAL CANTONBURG STREET RAILWAY, THENCE ALONG SAID EAST LINE OF STANBROOK AVENUE NORTH 89 DEGREES 15 MINUTES, 20 SECONDS TO THE WEST LINE OF STANBROOK AVENUE, THENCE ALONG THE WEST LINE OF STANBROOK AVENUE SOUTH 89 DEGREES 15 MINUTES TO THE POINT OF BEGINNING.

CONTAINS 12.8 ACRES MORE OR LESS

| |
|--|
| <p>Proposed For</p> <p>United States Department of Energy</p> <p>SITE DESCRIPTION & OWNERSHIP</p> <p>Project 1271 Telling Site</p> <p>CANONSBURG, PENNSYLVANIA</p> |
|--|

Project Erection / Vol. 44, No. 173 / Wednesday, September 6, 1970 / Notices

MODIFICATION OF COOPERATIVE AGREEMENT

Page 1 of 1

1. Modification No. M002 2. Effective Date:
3. Purchase Request No. 04-83AL19487.502 4. Cooperative Agreement No. DE-FC04-82AL19487

5. Issued By: 6. State:
Department of Energy Commonwealth of Pennsylvania
Albuquerque Operations Office Department of Environmental Resources
Contracts and Procurement Division P. O. Box 2063
P.O. Box 5400 Harrisburg, PA 17120
Albuquerque, NM 87115

7. Accounting and Appropriation Data (If Required):
N/A

8. ☐ The above numbered Cooperative Agreement is modified to reflect the administrative changes set forth in block 9.
☒ This agreement is entered into pursuant to authority of Uranium Mill Tailings Radiation Control Act of 1978, P.L. 95-604. It modifies the above numbered Cooperative Agreement as set forth in block 9.

9. Description of Modification:

(a) The parties have executed the Supplemental Agreement which is attached hereto.

Except as provided herein, all terms and conditions of the document referenced in block 4, as heretofore changed, remain unchanged and in full force and effect.

10. ☐ State/Indian Tribe is not required to sign this document.
☒ State is required to sign this document and return 3 copies to issuing office.

11. Execution of and Concurrence with the Supplemental Agreement:

See page 33 of the Supplemental Agreement.

Modification No. A002
Supplemental Agreement to
U.S. Department of Energy
Agreement No. DE-FC04-82AL19487

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Modification No. A002
Supplemental Agreement to
U.S. Department of Energy
Agreement No. DE-FC04-82AL19487

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Agreement No. DE-FC04-82AL19487

COOPERATIVE AGREEMENT

This SUPPLEMENTAL AGREEMENT, entered into between the UNITED STATES OF AMERICA (hereinafter called the "Government"), acting through the DEPARTMENT OF ENERGY (hereinafter called "DOE"), and the COMMONWEALTH OF PENNSYLVANIA (hereinafter called the "State"), acting through the DEPARTMENT OF ENVIRONMENTAL RESOURCES.

WITNESSETH THAT:

WHEREAS, the Uranium Mill Tailings Radiation Control Act of 1978, Public Law 95-604 (hereinafter called the "Act"), approved November 8, 1978, authorizes the Secretary of DOE to enter into agreements with affected States to cooperatively perform and share the costs of remedial action at those inactive uranium mill tailings sites and associated vicinity properties which have been or will be designated processing sites by the Secretary of DOE; and

WHEREAS, pursuant to the Act, the Secretary of DOE, on November 8, 1979, designated an inactive uranium mill tailings site in Canonsburg, Pennsylvania, as a processing site, thus making the site eligible for remedial action; and

WHEREAS, pursuant to the Act, the Secretary of DOE has assessed the potential health hazard to the public from the residual radioactive materials at the Canonsburg, Pennsylvania inactive uranium mill tailings site and has established the relative priorities for carrying out remedial action at such site; and

WHEREAS, DOE and the State entered into a cooperative agreement, effective September 5, 1980, for the purposes of establishing a plan of assessment and remedial action at the Canonsburg inactive uranium mill tailings site and any associated vicinity properties in order to stabilize and control such tailings in a safe and environmentally sound manner, to provide for acquisition of property by the State where determined appropriate by the Secretary, and to formally commit DOE and the State to the undertaking of their respective statutory responsibilities under the Act; and

WHEREAS, DOE and the State are mutually desirous of amending said cooperative agreement in certain respects and to incorporate the entire agreement of the parties into this Supplemental Agreement, including its appendices;

NOW THEREFORE, DOE and the State agree that the cooperative agreement is amended to make this Supplemental Agreement the entire agreement of the parties and provide as follows:

I. DEFINITIONS

As used throughout this Agreement, the following terms shall have the meanings set forth below:

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- A. The term "Secretary" means the Secretary of Energy or any duly authorized representative thereof.
- B. The term "DOE" means the United States Department of Energy or any duly authorized representative thereof, including the Secretary and the Contracting Officer.
- C. The term "Contracting Officer" means the person executing this Agreement on behalf of the Government, and any other officer or civilian employee who is properly designated as a Contracting Officer; and the term includes, except as otherwise provided in this Agreement, the authorized representative of a Contracting Officer acting within the limits of his authority.
- D. The term "Commission" means the United States Nuclear Regulatory Commission or any duly authorized representative thereof.
- E. The term "Administrator" means the Administrator of the United States Environmental Protection Agency or any duly authorized representative thereof.
- F. The term "State" means the Commonwealth of Pennsylvania or any duly authorized representative thereof.
- G. The term "State Site Representative" means the Director, Bureau of Radiation Protection and Toxicology, and, as authorized by the Director, any duly authorized representative thereof.
- H. The term "person" means any individual, association, partnership, corporation, firm, joint venture, trust, government entity, and any other entity, except that such term does not include any Indian or Indian tribe.
- I. The term "millsite" means any inactive uranium mill tailings site within the Commonwealth of Pennsylvania, including any residual radioactive materials thereon, which the Secretary has designated (44 F.R. 74891) pursuant to Section 102(a) of the Act to be a "processing site" and which is further described in Appendix A to this Agreement.
- J. The term "vicinity property" means any real property or improvement thereon which: (1) is in the vicinity of a mill-site; (2) is determined by the Secretary, in consultation with the State and the Commission, to be contaminated with residual radioactive materials derived from a millsite; and (3) the Secretary designates, during the term of this Agreement and

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pursuant to Section 102(e) of the Act, to be a "processing site"; and includes any residual radioactive materials thereon.

- K. The term "residual radioactive materials" means: (1) waste at a millsite or vicinity property, which DOE determines to be radioactive, in the form of tailings resulting from the processing of ores for the extraction of uranium and other valuable constituents of the ores; and (2) other waste, which DOE determines to be radioactive, at a millsite or vicinity property which relates to such processing, including any residual stock of unprocessed ores or low-grade materials.
- L. The term "tailings" means the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted.
- M. The term "EPA Standards" means those standards, promulgated as standards by rule of the Administrator pursuant to Section 275 of the Atomic Energy Act, as amended, of general application for the protection of the public health, safety, and the environment from radiological and nonradiological hazards associated with residual radioactive materials located at mill sites, vicinity properties and depository sites.
- N. The term "depository site" means any site, which may include the mill site or vicinity property, used for the permanent disposition, stabilization and control of residual radioactive materials in accordance with and pursuant to this Agreement and Title I of the Act.
- O. The term "remedial action" means the assessment, design, construction, excavation, renovation, restoration, decommissioning and decontamination activities of DOE, or such person as it designates, which: (1) are directly related to the stabilization and control of residual radioactive materials at a millsite, vicinity property or depository site in a safe and environmentally sound manner in accordance with the EPA Standards and consistent with applicable Federal and State law; (2) with respect to millsites, are conducted after execution of a Remedial Action Plan; and (3) with respect to vicinity properties, are conducted in the development and preparation of a Radiological and Engineering Assessments or Remedial Action Plan, as appropriate; PROVIDED, that remedial action shall not include any maintenance or monitoring performed at a depository site after the State has transferred to the Government title to the residual radioactive materials and the depository site in accordance with the article hereof entitled "Acquisition, Disposition and Use of Property."

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- P. The term "Remedial Action Plan" means the document developed pursuant to the article hereof entitled, "Description of Remedial Action Program," in order to define the remedial action to be performed at a millsite pursuant to this Agreement, including, where appropriate, removal of residual radioactive materials to a depository site, and which also includes a discussion of the proposed means of accomplishing such remedial action, the estimated costs of design and performance of remedial action, project status and technical information reporting requirements, and a schedule of activities for such remedial action.
- Q. The term "Radiological and Engineering Assessment" means the document developed pursuant to the article hereof entitled, "Description of Remedial Action Program," in order to define the remedial action to be performed at a vicinity property pursuant to this Agreement, and which includes a detailed radiological and engineering assessment of that vicinity property, and an estimated cost of design and performance of the remedial action.
- R. The term "environmental document" means a written public document, such as an environmental assessment or environmental impact statement, which contains an appropriate environmental analyses of the preferred remedial action and all reasonable alternatives, and which is prepared in such format and in accordance with such procedures as prescribed by the Council on Environmental Quality National Environmental Policy Act Regulations, 40 CFR Parts 1500-1508, and the DOE National Environmental Policy Act Guidelines, published at 45 FR 20694-20701 on March 28, 1980.
- S. The term "advance by Treasury check" means a payment made by DOE to the State by Treasury check, in accordance with the provisions of Treasury Circular No. 1075, upon request by the State before cash outlays are made for allowable costs incurred or anticipated to be incurred by the State.
- T. The term "reimbursement by Treasury check" means a payment made by DOE to the State by Treasury check upon request by the State for reimbursement for cash outlays made for allowable costs.
- U. The term "program income" means the State's share of proceeds from: (1) any sale by the State of a millsite or vicinity property pursuant to the article hereof entitled, "Acquisition, Disposition and Use of Property;" and (2) any remilling of residual radioactive materials done pursuant to Article II,

"Description of Remedial Action Program," and Section 108(b) of the Act. Program income does not include any interest earned on advances of Government funds pursuant to this Agreement.

- V. The term "subcontractor" means any contractor to the State and all tiers of subcontractors thereunder.
- W. Except as otherwise provided in this Agreement, the term "subcontracts" includes purchase orders under this Agreement.

II.

DESCRIPTION OF REMEDIAL ACTION PROGRAM

- A. The Secretary, pursuant to Section 102 of the Act, has designated a millsite located in Canonsburg, Pennsylvania, and has assigned a relative priority for carrying out remedial action as high.

This millsite is further described in Appendix A, Attachment 1, of this Agreement.

In addition, from time to time during the term of this Agreement, the Secretary shall, pursuant to Section 102 of the Act, designate vicinity properties and relative priorities for carrying out remedial actions at such sites. Upon such designation, DOE shall provide the State with a notice of such designation and a description of the vicinity property so designated.

- B. DOE, or such person as the Contracting Officer may designate, shall select and perform remedial actions at the mill sites, vicinity properties and depository sites in accordance with the EPA Standards and other applicable federal and State law. As further described herein, it is contemplated that the State will fully participate in the selection and performance of such remedial action. Remedial action shall be: (1) carried out, to the greatest extent practicable, in accordance with the priorities established by DOE pursuant to Section 102 of the Act, and published at 44 F.R. 74891, 74892 (1979); (2) performed using technology that will assure compliance with the EPA Standards and will assure the safe and environmentally sound stabilization of residual radioactive materials consistent with existing applicable law; and (3) performed in accordance with the applicable provisions of the Act, including the provisions of Section 108(b) regarding the remilling of residual radioactive materials.

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- C. Unless otherwise agreed by DOE and the State in writing, and except as provided in this Agreement, DOE shall procure, in accordance with applicable DOE procurement policies and procedures and existing Federal law, all supplies, equipment, construction and services necessary for the performance of this Agreement. The applicable standards and guidelines for any authorized procurement by the State of supplies, equipment, construction, and services pursuant to this Agreement shall, except as provided in Appendix B, be those provided in Attachment O to Office of Management and Budget (OMB) Circular A-102, as that Attachment was revised by OMB on August 1, 1979, and published in the Federal Register, Volume 44, No. 159, August 15, 1979, pp. 47874-47878; Provided, That such standards shall not apply to the State's acquisition of property pursuant to the article hereof entitled Acquisition, Disposition and Use of Property.
- D. Except as specifically provided elsewhere in this Agreement, it is contemplated that the general sequence of major activities by DOE and the State under this Agreement will be as set forth below. The activities that are cost-shared in accordance with the article hereof entitled Payments and Allowable Costs are specifically identified; otherwise, the costs incurred by either DOE or the State in connection with such activities will be borne by the party incurring the cost.
1. Remedial Action Concept. DOE prepared and submitted to the State and the Commission a draft Remedial Action Concept Paper (RACP) for the millsite. The draft RACP was utilized to coordinate initial planning of remedial action with the State and the Commission. The draft RACP included a brief evaluation of all reasonable remedial action options and a proposed remedial action option, a schedule for completion of remedial actions, a brief discussion of environmental, health and safety concerns, and a cost estimate. The State and the Commission reviewed the draft RACP and concurred in the draft RACP prior to its finalization by DOE.
 2. Environmental Document. DOE prepared and submitted to the State and the Commission an environmental impact statement (EIS) document for the millsite, environmental assessment (EA) for the vicinity properties and otherwise complied with the requirements of the National Environmental Policy Act (NEPA). The Commission was a "cooperating agency," as that term is defined in 40 CFR Section 1508.5, in connection with the preparation of the EIS, and coordinated with DOE in the development of

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environmental assessments. The State assisted DOE, to the extent agreed upon by DOE and the State, in scoping, scoping meetings, draft environmental impact statement hearings, and in connection with other NEPA process matters. In addition, the State reviewed and commented to DOE on any such environmental document prior to its finalization.

3. Design.

- a. Remedial Action Plans. For the millsite, DOE prepared a draft Remedial Action Plan for State concurrence. Upon concurrence by the State, DOE obtained Commission concurrence. The Remedial Action Plan shall be executed by DOE and the State and shall be incorporated into and made a part of this Agreement by this reference. Either DOE or the State may at any time request in writing that such Remedial Action Plan be revised and both DOE and the State agree to negotiate in good faith concerning any requested revision. Significant revisions to the Remedial Action Plan, as determined by DOE and the Commission, shall be concurred with by the Commission. Upon necessary concurrence with the Remedial Action Plan, DOE shall prepare a preliminary and final design of the remedial actions. (The preliminary and final design effort is cost-shared.)
- b. Radiological and Engineering Assessments (Cost-Shared). For each vicinity property:
 - (1) DOE shall prepare and submit to the State a draft Radiological and Engineering Assessment.
 - (2) The State shall review the draft Radiological and Engineering Assessment and shall concur with the proposed remedial action prior to DOE finalization of the Radiological and Engineering Assessment. Such State concurrence shall not be unreasonably withheld. DOE and the State agree to negotiate in good faith concerning any revisions of the Radiological and Engineering Assessment.
 - (3) The Commission shall concur with the Radiological and Engineering Assessment only in

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those instances of an unusually significant vicinity property which may warrant, in the opinion of DOE and the Commission, an individual Remedial Action Plan or environmental document, or both, because of size, location, cost, remedial action feasibility, or schedule considerations. In the event a Remedial Action Plan is warranted, DOE shall prepare a Draft Remedial Action Plan for State review and concurrence prior to finalization of such Plan. Such State concurrence shall not be unreasonably withheld. Either DOE or the State may at any time request in writing that such Plan be revised and both DOE and the State agree to negotiate in good faith concerning any requested revision. Significant revisions to this Plan, as determined by DOE and the Commission, shall be concurred with by the Commission.

4. Obligation of Funds. Pursuant to the article hereof entitled Cost Limitation and Obligation of Funds, DOE and the State shall obligate funds from time to time for remedial actions based upon preliminary cost estimates by DOE and the State. In the case of millsites, such estimates shall be based upon the Remedial Action Plans. For vicinity properties, such estimates shall be by mutual agreement of the parties.
5. Remedial Actions (Cost-Shared). After preparation of the final design in the case of a millsite or a Radiological and Engineering Assessment in the case of a vicinity property, DOE shall carry out the decontamination, excavation, demolition, decommissioning, renovation, restoration, construction, stabilization and other remedial action activities as necessary to ensure compliance with the EPA Standards and other applicable federal and State law. DOE, with the concurrence of NRC, shall certify that the remedial actions are completed at each millsite, vicinity property and depository site.
6. Acquisition of Property (Cost-Shared). Remedial action shall not be implemented until any necessary acquisition of the affected millsite, vicinity property or depository site, or any interest therein, has been made pursuant to the article hereof entitled "Acquisition, Disposition and Use of Property."

7. Interim Maintenance and Surveillance. After completion of remedial actions, DOE shall perform monitoring and maintenance activities at the depository sites pending issuance of a license to DOE (or other federal agency) by the Commission setting forth the long-term monitoring and maintenance of the depository sites.
8. Federal Custody of Depository Site. Custody of depository sites, and other property title to which the State transfers to the Government under this Agreement, shall be assumed by DOE or such other federal agency as the President may designate. Upon completion of remedial actions, such depository sites and other property shall be maintained by DOE or such other federal agency pursuant to a license issued by the Commission in such manner as will protect the public health, safety, and the environment. The Commission may, pursuant to such license or by rule or order, require DOE or such other federal agency to undertake monitoring, maintenance and emergency measures necessary to protect public health, safety, and the environment.

III. ACQUISITION, DISPOSITION, AND USE OF PROPERTY

- A. DOE and the State have agreed to acquire two depository sites in connection with remedial actions under this Agreement. One depository site is located in Canonsburg, Pennsylvania and one is located in Burrell Township, Pennsylvania. The two depository sites are described in Appendix C - Depository Sites.
- B. In connection with the depository sites, the acquisition responsibilities of DOE and the State are as follows:
 1. The State shall:
 - a. Acquire fee simple title to the millsite, including any residual radioactive materials located thereon. The State, upon direction from DOE, has initiated a condemnation action for title to the millsite and has partially settled that action. The State shall pursue such condemnation action in accordance with the State eminent domain code, other applicable law, and such other requirements agreed upon by DOE and the State; Provided, that every appeal or settlement in connection with such action shall be with the advice and consent of the Contracting Officer.

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- b. Provide relocation assistance to all persons relocated in connection with acquisition of property by the State pursuant to this Agreement. Such relocation assistance shall be pursuant to applicable State law of eminent domain; Provided, that such State law conforms substantially with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, Sections 201 through 204, inclusive.
- c. Assure that DOE, the Commission, the Administrator, and the State shall have a right of entry to perform remedial actions and to inspect the millsite at any time from the time the State acquired the millsite until the time the State transfers title to the millsite to the Government, in furtherance of the provisions of Title I of the Act and to carry out this Agreement and to enforce the provisions of the Act and any rules prescribed thereunder.
- d. Forward to the Contracting Officer: (i) two copies of any deed or easement, right of entry, license or other temporary interest conveyance to the State; (ii) two copies of any declaration of taking or judgment; and (iii) a copy of all pleadings, motions or other papers filed in connection with any condemnation proceeding.
- e. Provide periodic, but no less than quarterly, reports to the Contracting Officer regarding the status of the State's acquisition activities under this Agreement, including a schedule of future activities, a narrative summary of past activities, an estimate of costs to be incurred, an itemization of costs incurred, and any comments or recommendations for DOE consideration.
- f. Transfer to the Government, when the Secretary (with the concurrence of the Commission) determines that remedial action is completed in accordance with the EPA Standards and other requirements of Title I of the Act, title to the millsite and any residual radioactive materials located thereon.

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2. DOE shall:

- a. Acquire, pursuant to federal law, regulations and procedures, fee simple title to the portion of the Canonsburg depository site shaded in red in Appendix A and fee simple title to the Burrell Township depository site.
 - b. Provide relocation assistance to all persons relocated in connection with acquisition of property by DOE pursuant to this Agreement. Such relocation assistance shall be pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646.
 - c. Administer any abandonment and relocation of utilities and streets of record in connection with the Canonsburg depository site.
 - d. Provide periodic, but no less than quarterly, reports to the State Site Representative regarding the status of the ~~DOE's~~ acquisition activities under this Agreement, including a schedule of future activities, a narrative summary of past activities, an estimate of costs to be incurred, an itemization of costs incurred, any any comments or recommendations for State consideration.
 - e. In connection with its acquisition responsibilities under this Agreement, the parties acknowledge that DOE will utilize the real estate services of the United States Army Corps of Engineers, Huntington District.
- C. When the State transfers title to the Government to the mill-site pursuant to this Article, the State shall forward to the Contracting Officer a deed which conforms to applicable State law and the "Standards for the Preparation of Title Evidence in Land Aquisitions by the United States" (hereinafter referred to as the "Federal Title Standards") issued by the Department of Justice, and which:
1. Shows the name of the State as grantor in the body of the deed and its acknowledgment.
 2. Conveys the land to the "United States of America and its assigns."

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3. Contains a proper description of the land.
4. Conveys all the right, title and interest of the State as grantor in and to any alleys, streets, ways, strips, or gores abutting or adjoining the land.
5. Contains no reservations or exceptions not approved by the Contracting Officer; however, when land is to be conveyed subject to certain rights, such as easements or mineral rights thought to be outstanding in third parties, they must not be excepted from the conveyance, but the deed shall be framed to convey all the State's right, title, and interest subject to the outstanding rights.
6. Refers to the deed(s) to the State, or other source of the State's title, by book, page, and place of record, wherever customary or required by statute.
7. Contains a reference to DOE as the Government agency for which the lands are being acquired. This statement should follow the description of the land and in no instance should it be included in the granting, habendum or warranty provisions of the deed.
8. Is signed, sealed, attested, and acknowledged by the State as grantor as required by applicable State law.
9. If executed by an attorney in fact, is signed in the name of the principal by the attorney, properly acknowledged by the attorney as the free act and deed of the principal, and is accompanied by the original or a certified copy of the power of attorney and satisfactory proof that the principal was living and the power in force at the time of its exercise.

Upon the request of the Contracting Officer, the State shall provide such additional documentation or information that will assist DOE in preparing title evidence and otherwise complying with the Federal Title Standards.

- D. After transfer of title to the millsite by the State to DOE, DOE or such other agency designated by the President of the United States, shall be responsible for maintenance, monitoring and control of such property.
- E. In connection with the acquisition of real estate under this Agreement, it may be necessary for DOE or the State to acquire

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and dispose of items of personal property such as machinery and equipment. Acquisition of such personal property shall be in accordance with the regulations and procedures of the party making the acquisitions. Disposal of such personal property shall be in accordance with procedures and requirements agreed upon by the Contracting Officer and the State Site Representative as reflected in an exchange or exchanges of correspondence as appropriate. In any case, no such personal property shall be disposed of until such time as the Contracting Officer's Representative advises the Contracting Officer and the State Site Representative that it would not be hazardous to the public health, safety and environment to do so.

- F. The State and DOE shall, prior to any remedial action at a vicinity property pursuant to this Agreement, obtain from any person holding any record interest in the vicinity property, execution of a Vicinity Property Remedial Action Agreement, in a form prescribed by the Contracting Officer, which provides for the State and DOE to perform remedial action at the vicinity property. Such agreement shall: (1) include a waiver by each such person on behalf of himself, his heirs, successors and assigns (i) releasing the Government and State of any liability or claim thereof by such person, his heirs, successors and assigns concerning such remedial action, and (ii) holding the Government and State harmless against any claim by such person on behalf of himself, his heirs, successors, or assigns arising out of the performance of any such remedial action; (2) specify the remedial action to be performed; (3) provide that the remedial action shall be performed only by the DOE or such person as the Contracting Officer designates; (4) include a consent to the remedial action by such person; (5) include as parties the State, DOE, and each such person holding any record interest in the millsite or vicinity property; (6) provide for a right of entry to DOE, the Commission, the Administrator and the State for the purpose of inspecting the vicinity property at any time during the term of the Agreement for the purpose of carrying out the Act; and (7) provide for transfer of title to the residual radioactive materials thereon to the Government. Whenever the State and DOE are unable to obtain a Vicinity Property Remedial Action Agreement, DOE and the State shall determine how to proceed in connection with the site, which may include, but is not limited to, a determination ~~that the State is to acquire the subject site in accordance with the terms of this article or that~~ no remedial action shall be performed at the subject site.
- G. The State shall take such action as may be necessary, pursuant to regulations of the Secretary and with the consent of the

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person who owns the property at the time remedial action is performed, to assure that any person who purchases a vicinity property after the removal of radioactive materials from such site shall be notified prior to purchase of the nature and extent of residual radioactive materials removed from the site, including notice of the date when such action took place, and the condition of such site after such action. If the State is the owner of such site, the State shall so notify any prospective purchaser before entering into a contract, option, or other arrangement to sell or otherwise dispose of such site.

- H. From time to time DOE and the State may agree that in order to effectuate the most practicable remedial action at a vicinity property, the vicinity property should be acquired. In such cases, DOE shall acquire the vicinity property and any residual radioactive materials located thereon.

IV. PAYMENTS AND ALLOWABLE COSTS

- A. Allowable costs incurred by the State shall be those direct costs, as determined by the Contracting Officer in accordance with Office of Management and Budget Circular No. A-87, incurred to:

1. perform any State responsibility under the article hereof entitled, "Acquisition, Disposition and Use of Property";
2. conduct remedial action pursuant to and in accordance with the terms and conditions of this Agreement; and
3. reimburse, in accordance with the terms and conditions of Section 103(f) of the Act, property owners for remedial action performed at vicinity properties prior to passage of the Act.

Allowable costs incurred by the State shall also include such other costs in connection with performance of the remedial action as may be approved by the Contracting Officer in writing or as otherwise mutually agreed to in writing by DOE and the State. Allowable costs shall not include the administrative costs incurred by the State to develop, prepare, and carry out this Agreement, but shall include the administrative costs associated with the performance by the State of its responsibilities under the articles hereof entitled, "Acquisition, Disposition, and Use of Property," and "State Financial

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Management System," including costs of "compensation for personal services," "legal expenses," "travel," and "communications," as those categories are described in OMB Circular No. A-87.

- B. Allowable costs incurred by DOE shall be those direct costs, as determined by the Contracting Officer in accordance with the general principles set forth in OMB Circular No. A-87, incurred to:
1. conduct remedial action pursuant to and in accordance with the terms and conditions of this Agreement;
 2. reimburse, in accordance with the terms and conditions of Section 103(f) of the Act, property owners for remedial action performed at vicinity sites; and
 3. perform any DOE responsibility under the article hereof entitled "Acquisition, Disposition and Use of Property."
- C. DOE shall make payment for ninety percent (90%) of all allowable costs by advance or reimbursement by Treasury check, and the State shall make payment for ten percent (10%) of all allowable costs by cash contribution. The term "cash contribution" means the State's cash payment from non-Government funds for its share of allowable costs. Such cash payments: (i) shall not be included as contributions for any other Government assistance program; (ii) shall not be made from funds paid by the Government under any other Government assistance program; and (iii) shall otherwise conform to the provisions of this Agreement and the Act.
- D. The State shall submit quarterly, or at more frequent intervals by mutual agreement between the State Site Representative and the Contracting Officer, OMB Standard Form 270, "Request for Advance or Reimbursement," to request payment for the DOE share of allowable costs incurred by the State. The State shall submit the OMB Standard Form 270, original and two copies, to the Contracting Officer. DOE shall promptly make advance by Treasury check pursuant to the article hereof entitled "Advance Payments," or reimbursement by Treasury check, or a combination thereof, as payment to the State for a maximum of ninety percent (90%) of allowable costs. In lieu of payment by advance or reimbursement by Treasury check, the State may submit an OMB Standard Form 270 showing allowable costs incurred by the State and requesting that the Contracting Officer offset such costs against the State's share (10%) of the total allowable costs.

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- E. DOE shall submit quarterly, or at more frequent intervals by mutual agreement between the State Site Representative and the Contracting Officer, Standard Form 1114, "Bill for Collection," supported by a statement of allowable costs incurred by DOE. DOE shall submit the Standard Form 1114, original and two copies, to the State Site Representative. Prompt payment shall be made by the State for ten percent (10%) of allowable costs.
- F. Program income earned during the term of this Agreement may, at the State's option, be retained by the State, or used to finance the State's share of the allowable costs.

V. ADVANCE PAYMENTS

- A. At the request of the State, in accordance with the article hereof entitled, "Payments and Allowable Costs," and subject to the conditions hereinafter set forth, DOE shall make an advance payment, or advance payments from time to time, by Treasury check, to the State. No advance payment shall be made: (1) without the approval of the Contracting Officer as to the financial necessity therefor; and (2) without the submission by the State of OMB Standard Form 270 and properly certified invoice or invoices.
- B. Funds advanced to the State by DOE under this Agreement may be used by the State solely for the purposes of making payments for items of allowable cost as defined in the article hereof entitled, "Payments and Allowable Costs," or to reimburse the State for such items of allowable costs, and for such other purposes as the Contracting Officer may approve in writing. Any interpretation required as to the proper use of such funds shall be made in writing by the Contracting Officer.
- C. The State may at any time repay all or part of the funds advanced hereunder. Whenever so requested in writing by the Contracting Officer, the State shall repay to the Government such part of the unliquidated balance of advance payments as shall, in the opinion of the Contracting officer, be in excess of current requirements.
- D. If upon completion or termination of this Agreement all advance payments have not been fully liquidated, the balance thereof shall be deducted from any sums otherwise due or which may become due to the State from the Government, and any deficiency shall be paid by the State to the Government upon demand.

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- E. Any interest earned by the State on advances of Government funds shall be remitted to the Contracting Officer when earned.
- F. Funds advanced hereunder must be deposited in a member bank of the Federal Reserve System, or an "insured" bank within the meaning of the act creating the Federal Deposit Insurance Corporation (Act of August 23, 1935, 49 Stat. 684, as amended; 12 U.S.C. 264).
- G. Any and all advance payments made under this Agreement shall be secured, when made, by a lien in favor of the Government, paramount to all other liens, upon any millsite, vicinity property, depository site, residual radioactive materials, and on all material and other property acquired for or allocated to the performance of this Agreement, except to the extent that the Government, by virtue of any other provision of this Agreement, or otherwise, shall have valid title to such property as against other creditors of the State. The State shall identify, by marking or segregation, all property which is subject to a lien in favor of the Government by virtue of any provision of this Agreement in such way to indicate that it is subject to such lien and that it has been acquired for or allocated to the performance of this Agreement; PROVIDED, That in the case of real property or residual radioactive materials purchased by the State under this Agreement, the State shall not convey or encumber, or suffer to be encumbered, such property except in favor of the Government or to the extent otherwise allowed under this Agreement. The State shall maintain adequate accounting control over such property on its books and records. If the State is authorized to sell or retain property acquired for or allocated to this Agreement, such sale or retention shall be made only if approved by the Contracting Officer, which approval shall constitute a release of the Government's lien hereunder to the extent that such property is sold or retained, and to the extent that the proceeds of the sale are applied in reduction of advance payments then outstanding hereunder.
- H. Upon a finding by the Contracting Officer that the State has failed to observe any of the covenants, conditions or warranties of this article, the Government, without limiting any rights which it may otherwise have, may, in its discretion and upon written notice to the State, withhold further payments on this Agreement. Upon the continuance of any such failure for a period of thirty (30) days after such written notice to the State, the Government may, in its discretion, and without limiting any other rights which the Government may have, take the following additional actions as it may deem appropriate in the circumstances:

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1. Demand immediate repayment of the unliquidated balance of advance payments hereunder; or
 2. Take possession of and, with or without advertisement, sell at public or private sale, at which the Government may be the purchaser, all or any part of the property on which the Government has a lien under this Agreement, and, after deducting any expenses incident to such sale, apply the net proceeds of such sale in reduction of any other claims of the Government against the State.
- I. Notwithstanding any other provision of this Agreement, the State shall not transfer, pledge, or otherwise assign this contract, or any claim arising thereunder, to any party or parties, bank, trust company, or other financing institution.
- J. The terms of this Agreement shall be considered adequate security for advance payments hereunder, except that if at any time the Contracting Officer deems the security furnished by the State to be inadequate, DOE and the State, after negotiating in good faith, shall agree upon additional security to be provided for advance payment.

VI. COST LIMITATION AND OBLIGATION OF FUNDS

- A. The total estimated allowable costs which will be incurred from September 5, 1980 through September 30, 1983 (such period hereinafter referred to the Cost Estimate Period) are as follows:
1. State - \$_____;
 2. DOE - \$_____; and
 3. State and DOE - \$_____ (hereinafter referred to as the Total Cost Limitation).

At such time as either party has reason to believe that the allowable costs it will incur in performing its responsibilities under this Agreement will be greater than the estimated allowable costs shown above, then such party shall notify the other in writing to that effect, giving its revised estimate of allowable costs, and DOE shall issue a unilateral modification to this Agreement appropriately revising the estimated allowable costs shown above; Provided, that, prior to being included as part of the Total Cost Limitation, the estimated allowable costs associated with remedial action shall be

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established and revised by execution and modification of Remedial Action Plans and Radiological Engineering Assessments, as appropriate, pursuant to the article of this Agreement entitled "Description of Remedial Action Program."

- B. The State, for the Cost Estimate Period, has obligated funds in the amount of \$_____, for payment of its share of allowable costs under this Agreement. The State shall not be liable in an amount in excess of the funds it has obligated herein; however, DOE shall not be required to continue performance of this Agreement beyond such time as the Total Cost Limitation exceeds an amount 10 times the amount of the funds obligated by the State. Prior to each Government fiscal year or from time to time during the performance of this Agreement, as necessary, the State shall increase the amount of funds obligated by written notice to the Contracting Officer specifying the amount of such increase. Upon such written notice DOE may issue a unilateral modification to this Agreement which reflects the increased obligation of funds by the State. In the event the State fails to obligate funds at a level necessary to ensure payment of its share of the Total Cost Limitation, DOE may elect to treat such failure as a termination by the State pursuant to the article of this Agreement entitled "Term and Termination."
- C. DOE, for the Cost Estimate Period: (1) has obligated funds in the amount of \$_____, for payment to the State for DOE's share of allowable costs which the State incurs under this Agreement; and (2) will obligate funds in an amount sufficient to pay to DOE contractors and subcontractors DOE's share of those allowable costs which DOE incurs under this Agreement. DOE shall not be liable to the State in an amount in excess of the funds it has obligated herein for payment to the State; however, the State shall not be required to continue performance of this Agreement beyond such time as such amount obligated by DOE is less than 90% of the amount shown in paragraph A.1. of this article. Prior to each Government fiscal year or from time to time under this Agreement, as necessary, DOE shall increase the amount of funds obligated by unilateral modification to this Agreement which reflects the increased obligation of funds by DOE. In the event DOE fails to obligate funds at a level necessary to ensure payment of its share of the total allowable costs to be incurred by the State, the State may elect to treat such failure as a termination by the State pursuant to the article of this Agreement entitled "Term and Termination."

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- D. The State shall not be required to pay for allowable costs incurred in excess of 10% of the Total Cost Limitation as it may be amended from time to time by modification to this Agreement. DOE shall use its best efforts to perform its responsibilities under this Agreement within the estimated allowable costs set forth in paragraph A.2. of this article. However, the Government and DOE do not guarantee the correctness of any such estimate of allowable costs and there shall be no liability on the part of the Government or DOE by reason of errors in the computation of estimates or differences between such estimates and the actual allowable costs.
- E. DOE shall not be required to pay for allowable costs incurred in excess of 90% of the Total Cost Limitation as it may be amended from time to time by modification to this Agreement. The State shall use its best efforts to perform its responsibilities under the Agreement within the estimated allowable costs set forth in paragraph A.1. of this article. However, the State does not guarantee the correctness of any such estimate of allowable costs and there shall be no liability on the part of the State by reason of errors in the computation of estimates or differences between such estimates and the actual allowable costs.

VII. STATE FINANCIAL MANAGEMENT SYSTEM

The State shall assure that its financial management system provides for:

- A. Accurate, current and complete disclosure of the financial results of the State's participation in the remedial action program, carried out pursuant to this Agreement and the Remedial Action Plan.
- B. Records that identify adequately the source and application of funds for activities supported pursuant to this Agreement. These records shall contain information pertaining to authorizations, obligations, unobligated balances, assets, liabilities, outlays, and program income. ~~For each millite listed in Appendix A, the State shall maintain separate accounting records for allowable costs associated with such millite and its associated vicinity properties and depository sites.~~
- C. Effective control over and accountability for all funds, property, and other assets. The State shall adequately safeguard all such assets and shall assure that they are used solely for authorized purposes.

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- D. Comparison of actual outlays with budgeted or otherwise authorized amounts.
- E. Procedures to minimize the time elapsing between transfer of funds from the U.S. Treasury and the disbursement by the State, whenever funds are advanced by the Government.
- F. Procedures for identifying the reasonableness of costs.
- G. Accounting records that are supported by adequate and reasonable source documentation.
- H. Examinations in the form of audits which meet the requirements set forth in Office of Management and Budget (OMB) Circular A-102, Attachment P, as that Attachment was revised by OMB effective October 22, 1979, and published in the Federal Register, Volume 45, No. 65, April 2, 1980, pp. 21875-21878, and which are in accordance with the "Guidelines for Financial and Compliance Audits of Federal Assisted Programs," issued by the United States General Accounting office.
- I. A systematic method to assure timely and appropriate resolution of audit findings and recommendations.

VIII. AUDIT

- A. The State shall maintain, and the Contracting Officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all allowable costs claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times of the State's plants, or such parts thereof, as may be engaged in the performance of this Agreement as to cost or pricing data submitted by the State.
- B. If the State submitted or submits cost or pricing data in connection with the pricing of this Agreement or any other change or modification thereto, unless such pricing was based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or process set by law or regulation, the Contracting Officer or his representatives who are employees of the United States Government shall have the right to examine all books, records, documents, and other data of the State related to the negotiation, pricing or performance of such Agreement, change or modification, for the purpose of

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evaluating the accuracy, completeness and currency of the cost or pricing data submitted. Additionally, in the case of pricing any change or modification exceeding \$1,000,000 to formally advertised agreements, the Comptroller General of the United States or his representatives who are employees of the United States Government shall have such rights. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projects used therein.

- C. The materials described in paragraphs A. and B. above shall be made available at the offices of the State, at all reasonable times, for inspection, audit or reproduction, until the expiration of three years from the date of final payment under this Agreement or such lesser time specified in Part 1-20 of the Federal Procurement Regulations (41 CFR Part 1-20) and for such longer period, if any, as is required by applicable statute, or by other articles or clauses of this contract, or by 1. and 2. below:
1. If this Agreement is completely or partially terminated, the records relating to the work terminated shall be made available for a period of three years from the date of any resulting final settlement.
 2. Records which relate to appeals or disputes or litigation or the settlement of claims arising out of the performance of this Agreement, shall be made available until such appeals, litigation, or claims have been disposed of.
- D. The State shall insert a clause containing all the provisions of this article, including this paragraph D., in all subcontracts hereunder except altered as necessary for proper identification of the contracting parties and the Contracting Officer under this Agreement.

IX.

STATE AUDIT AND EXAMINATION OF DOE RECORDS

- A. DOE shall maintain, in accordance with Government policy and practice, and the State Site Representative or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all allowable costs claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times of DOE's facilities, or such parts thereof, as may be engaged in the

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performance of this Agreement as to cost or pricing data submitted by the DOE.

- B. The materials described in paragraph A. above shall be made available at the offices of the Contracting Officer, at all reasonable times, for inspection, audit or reproduction, until the expiration of three years from the date of final payment under this Agreement and for such longer period, if any, as is required by applicable statute, or by other articles or clauses of this contract, or by 1. and 2. below:

1. If this Agreement is completely or partially terminated, the records relating to the work terminated shall be made available for a period of three years from the date of any resulting final settlement.
2. Records which relate to appeals or disputes or litigation or the settlement of claims arising out of the performance of this Agreement, shall be made available until such appeals, litigation, or claims have been disposed of.

X. REPORTING REQUIREMENTS

- A. DOE shall inform the State Site Representative of the status of activities under this Agreement as major milestones are reached but in no event less frequently than quarterly.
- B. Upon the request of the Contracting Officer, the State shall submit to the Contracting Officer progress and financial reports of its activities in the ~~acquisition of real property~~ ^{performance of} ~~under~~ this Agreement.
- C. The State shall submit annually, commencing one year from the effective date of this Agreement, to the Contracting Officer, OMB Standard Form 269, "Financial Status Report," to report the status of funds paid to the State by DOE pursuant to this Agreement. DOE shall request that the reports be either on a cash or accrual basis. If DOE requests accrual information and the State's accounting records are not normally kept on the accrual basis, the State shall not be required to convert its accounting system but shall develop such accrual information through an analysis of the documentation on hand. The State shall submit a final Financial Status Report upon closeout of this Agreement in accordance with the article hereof entitled, "Closeout Procedures." The State shall submit the OMB Standard Form 269, original and two copies, to the Contracting Officer no later than 90 days after the end of the

specified reporting period for the annual and final reports. Reasonable extensions to reporting due dates may be granted by the Contracting Officer upon written request of the State.

- D. The State shall supply to DOE such additional financial information as is requested in writing by DOE to comply with Congressional requirements.

XI. EXAMINATION OF RECORDS

- A. The State agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this Agreement or such lesser time specified in the Federal Procurement Regulations, Part 1-20, have access to and the right to examine any directly pertinent books, documents, papers, and records of the State involving transactions related to this Agreement.
- B. The State further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under the subcontract or such lesser time specified in the Federal Procurement Regulations, Part 1-20, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (1) purchase orders not exceeding \$10,000 and (2) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.
- C. The periods of access and examination described in A and B, above, for records which relate to (1) litigation or the settlement of claims arising out of the performance of this Agreement, or (2) costs and expenses of this Agreement as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims, or exceptions have been disposed of.
- D. The State shall report to the Secretary promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Agreement of which the State has knowledge.

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- E. In the event of any claim or suit against the Government, on account of any alleged patent or copyright infringement arising out of the performance of this Agreement or out of the use of any supplies furnished or work or services performed hereunder, the State shall furnish to the Government, when requested by the Secretary, all evidence and information in possession of the State pertaining to such suit or claim.
- F. DOE may request, and the State shall, transfer to the custody of DOE copies of certain records maintained by the State pursuant to this Agreement when DOE determines that the records possess long-term retention value. In order to avoid duplicate recordkeeping, DOE may make arrangements with the State to retain any records that are continuously needed for joint use.

XII. CONTRACTING OFFICER'S REPRESENTATIVE

The work to be performed by DOE under this Agreement will be managed for DOE by the Manager, Uranium Mill Tailings Remedial Actions (UMTRA) Project. The work to be performed by the State under this Agreement is subject to the monitoring of the Manager, Uranium Mill Tailings Remedial Actions (UMTRA) Project Office, who has been designated by the Contracting Officer as "Contracting Officer's Representative" (COR). A copy of such designation shall be furnished to the State. Said designation shall set forth the COR's responsibilities regarding this Agreement. The COR shall not make any commitments or authorize any changes which affect the Agreement scope, price, terms or conditions; any request for such changes shall be referred to the Contracting Officer for action.

XIII. TERM AND TERMINATION

- A. The period of performance of this Agreement shall expire at the earliest effective date that: (1) DOE and the State mutually agree in writing, with the concurrence of the Commission, that the objectives of the remedial action program have been met and that all work to be performed under this Agreement, or any modification or amendment hereto, has been completed; or (2) the date seven years from the date of promulgation of the EPA Standards or such other date as Congress shall establish, after the date of enactment of the Act, as the date of termination of the Secretary's authority to perform remedial action under the Act.
- B. DOE and the State may terminate this Agreement in whole, or in part, when both parties agree that continuation of the project would not produce beneficial results commensurate with the

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further expenditure of funds. The two parties shall agree upon the termination conditions, including the effective date and, in the case of partial terminations, the portion to be terminated. Neither party shall incur new obligations for the terminated portion after the effective date. The parties shall cancel as many outstanding obligations as possible.

- C. DOE, upon written Notice of Termination to the State, may terminate this Agreement, in whole, or from time to time, in part, whenever the Contracting Officer determines that the State has failed to comply with the conditions of this Agreement and such non-compliance continues for 60 days after receipt of a written Notice of Default from DOE. For purposes of this Article, the failure by the Pennsylvania Legislature to appropriate funds shall not constitute failure by the State to comply with the conditions of this Agreement.
- D. The State, upon written Notice of Termination to DOE, may terminate this Agreement whenever the State Site Representative determines that DOE has failed to comply with the conditions of this Agreement and such non-compliance continues for 60 days after receipt of a written Notice of Default from the State. For purposes of this Article, failure by the United States Congress to appropriate funds shall not constitute failure by DOE to comply with the conditions of this Agreement.
- E. After receipt of a Notice of Termination by either party, DOE and the State shall close out this Agreement in accordance with the terms and conditions of the article hereof entitled, "Closeout Procedures"; Provided, that DOE may, in its discretion, continue unilateral performance of this Agreement, including performance of the State's responsibilities, until such time as the remedial action contemplated by this Agreement is completed.
- F. Neither DOE nor the State shall be considered in default of this Agreement because of delay in performance for reasons beyond its control including, but not restricted to, acts of God or the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or unusually severe weather.
- G. In the event appropriated funds are not available to the State to carry out this Agreement:
 - 1. DOE shall have the right to continue unilateral performance of the remedial action contemplated by this

Agreement, including performance of the State's responsibilities, without cost to the State, until such time as the remedial action contemplated by this Agreement is completed.

2. DOE and the State shall close out this Agreement pursuant to the article hereof entitled, "Closeout Procedures," and such other procedures as mutually agreed to in writing.
- H. In the event appropriated funds are not available to DOE to carry out the Act or this Agreement, DOE and the State shall close out this Agreement pursuant to Article XV, "Closeout Procedures," and such other procedures as mutually agreed to in writing by the parties.

XIV. CLOSEOUT PROCEDURES

As of the date of receipt of a Notice of Termination pursuant to the article hereof entitled, "Term and Termination," or on the date of expiration of the period of performance or failure of the State or the Government to appropriate funds as provided in the article hereof entitled, "Term and Termination," and except as otherwise directed by the Contracting Officer:

1. The parties shall:
 - a. Stop performance under this Agreement on the date and to the extent specified in the Notice of Termination or on the date when the period of performance expires;
 - b. Place no further orders and make no further subcontracts or other agreements, for materials, services, or property except as may be necessary for completion of such portion of the work under this Agreement as is not terminated by any Notice of Termination;
 - c. Terminate all orders, subcontracts or other agreements entered into in performing this Agreement, to the extent that they relate to the performance of work terminated by the Notice of Termination or terminated by the expiration of the period of performance of this agreement.
 - d. Settle all outstanding liabilities and all claims arising out of such termination of orders, subcontracts and agreements, the cost of which would be reimbursable, in whole or in part, as an allowable cost in accordance with the provisions of this Agreement;

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- e. In the event of termination of performance in part, complete performance of such part of the work as shall not have been terminated by the Notice of Termination;
 - f. Take such action as may be necessary or as the Contracting Officer may direct for the protection and preservation of the property related to this Agreement which is in the possession of the State and in which the Government has or may acquire an interest.
- 2. DOE shall, upon written request by the State, make prompt payment to the State pursuant to the article hereof entitled, "Payments and Allowable Costs," for any outstanding allowable costs incurred by the State and not yet paid by DOE as required by this Agreement.
 - 3. The State shall, upon written request by DOE, make prompt payment to DOE pursuant to the article hereof entitled, "Payments and Allowable Costs," for its outstanding share of allowable costs incurred by DOE and the State in performance of this Agreement.
 - 4. The State shall transfer title to the Government, to the extent title has not already been transferred, and deliver and otherwise account for and dispose of, in the manner, at the times, and to the extent directed by the Contracting Officer, any property acquired by the State pursuant to this Agreement.
 - 5. The State shall immediately refund to DOE any balance of cash advanced to the State that is not authorized by the Contracting Officer to be retained by the State.
 - 6. The State shall provide to DOE, within ninety days after either the date of expiration of the period of performance or the date of termination of performance, or at such time designated by the Contracting Officer, all financial, performance, and other reports required pursuant to this Agreement. The Contracting Officer may grant reasonable extensions when requested by the State. An independent audit may be requested by either party.
 - 7. In the event a final audit has not been performed by DOE prior to closeout of this Agreement, either party shall, until such final audit is performed, retain the right to recover any outstanding share of allowable costs from the other party.

XV. PUBLIC PARTICIPATION AND INFORMATION

- A. The State Site Representative shall cooperate with the Contracting Officer in formulating and implementing a public participation plan in order to encourage public participation in carrying out the provisions of the Act, this Agreement and the Remedial Action Plan.
- B. Procedures for timely release of information to the public regarding activities by the State and DOE in carrying out this Agreement shall be those established by mutual agreement between the Contracting Officer and the State Site Representative.

XVI. LOCAL ADVISORY COMMITTEES

The State may, in such fashion as it deems appropriate, establish State advisory committees and consult with local advisory committees in connection with the remedial action to be performed under this Agreement for the purposes of: (1) providing information to and receiving information from the citizens of the State and the localities affected by such remedial action; and (2) evaluating candidate depository sites for recommendation to DOE. DOE shall not be a member of any such committee. DOE shall, however, make every reasonable effort to interface with any such committee to the extent requested by the State or the committee. No costs associated with any committee so established shall be allowable costs under this Agreement.

XVII. NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS

The State shall comply with the provisions of Part 1040, Chapter X, Title 10 of the Code of Federal Regulations, "Nondiscrimination in Federally Assisted Programs" (10 CFR Part 1040), as published in the Federal Register, Volume 45, No. 116, Friday, June 13, 1980 (pp. 40514-40535). 10 CFR Part 1040 provides that no person shall on the ground of race, color, national origin, sex, handicap, or age be excluded from participation in, be denied the benefits of, be subjected to discrimination under, or be denied employment where the main purpose of the program or activity is to provide employment or when the delivery of program services is affected by the State's employment practices, in connection with any program or activity receiving Federal assistance from DOE.

XVIII. NOTICE ADDRESS

Except as otherwise specifically provided herein, any notice, letter, or grievance given or payment made pursuant to the terms of

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this Agreement shall be sent to the respective party at its address designated below:

STATE:

Commonwealth of Pennsylvania
Department of Environmental Resources
ATTN: Thomas Gerusky, Director
Bureau of Radiation Protection and Toxicology
State Contracting Officer
P.O. Box 2063
Harrisburg, PA 17120

DOE:

Project Manager, Uranium Mill Tailings Remedial Action Project
5301 Central Avenue, NE
Suite 1700
Albuquerque, NM 87108

XIX. CONCURRENCES AND CONSULTATIONS

Whenever in performing this Agreement or in carrying out the Act a concurrence from or consultation with another Government agency is required, DOE shall seek such concurrence and be responsible for undertaking such consultation.

XX. DISPUTES

- A. Except as otherwise provided in this Agreement, any dispute concerning a question of fact arising under this Agreement which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail, or otherwise furnish a copy thereof to the State. The decision of the Contracting Officer shall be final and conclusive unless within 60 days from date of receipt of such copy, the State mails, or delivers a written notice of appeal to the DOE Financial Assistance Appeals Board in accordance with 10 CFR Part 1024 (See Rule 1). The decision of the DOE Financial Assistance Appeals Board shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessary to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this clause the State shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the State and the Government shall proceed dili-

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gently with the performance of this Agreement and in accordance with the Contracting Officer's decision.

- B. This "Disputes Clause" does not preclude consideration of law questions in connection with decisions provided for in paragraph A above; provided, that nothing in this Agreement shall be construed as making final the decision of any administrative official, representative, or board, based on a question of law.

XXI. RULES AND REGULATIONS

All activities under this Agreement shall be carried out pursuant to applicable Federal, State and local regulations, including but not limited to such rules and regulations promulgated or to be promulgated by the Secretary pursuant to Section 109 of the Act.

XXII. OTHER REMEDIES

Nothing in this Agreement shall prevent the Secretary from enforcing any provision of Title I of the Act, any regulation promulgated thereunder, or any provision of this Agreement, by injunction or other equitable remedy, or as otherwise provided by Section 110 of the Act.

XXIII. ENTIRE AGREEMENT

This written Agreement constitutes the entire agreement of the parties hereto. No representations, promises, terms, conditions, or obligations whatsoever referring to the subject matter hereof, other than those expressly set forth herein, shall be of any binding legal force or effect whatsoever.

XXIV. ORDER OF PRECEDENCE

In the event of an inconsistency between provisions of this Agreement, the inconsistency shall be resolved by giving precedence as follows:

- (a) Agreement Articles;
- (b) Remedial Action Plan (when executed);
- (c) Other provisions of this Agreement, whether incorporated by reference or otherwise.

XXV. COVENANT AGAINST CONTINGENT FEES

The State warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the State for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability or in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

XXVI. OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

XXVII. STANDARD FORMS

All standard forms required to be submitted by the State pursuant to this Agreement shall be provided to the State by the Contracting Officer upon request.

XXVIII. APPENDICES

The following appendices are attached to and made a part of this Agreement:

- Appendix A - Site Descriptions & Ownerships;
- Appendix B - General Provisions;
- Appendix C - Depository Sites.

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IN WITNESS WHEREOF, the parties have executed this Supplemental Agreement in
several counterparts.

THE UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

BY: _____
Terrell C. Cone, Jr.
Contracting Officer
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

BY: _____
~~Clifford L. Jones~~
Secretary
P.O. Box 2063
Harrisburg, PA 17120

DATE: _____

DATE: _____

STATE APPROVALS:

BY: _____

BY: _____

CONCURRENCE:
NUCLEAR REGULATORY COMMISSION

BY: _____

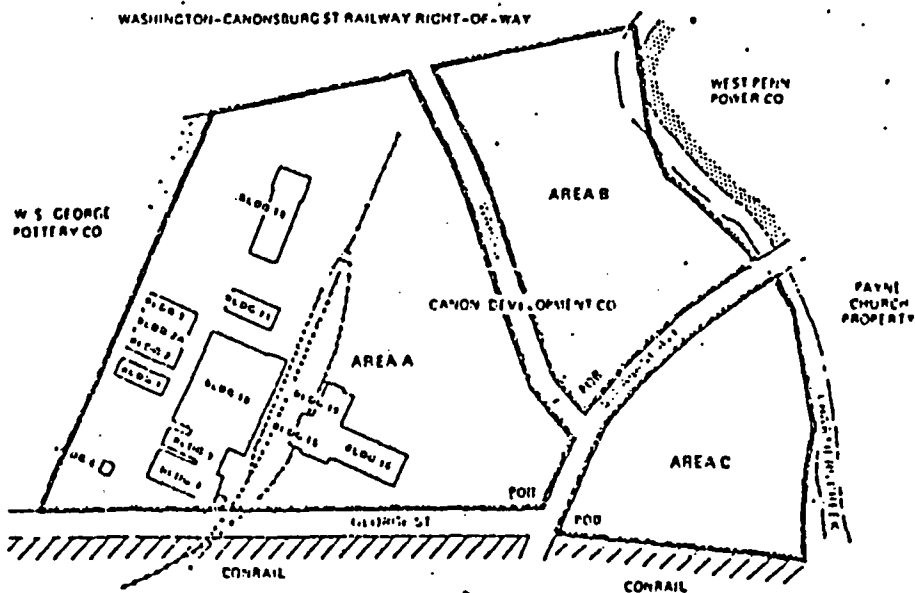
TITLE: _____

DATE: _____

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APPENDIX A

SITE DESCRIPTIONS AND OWNERSHIPS



PARCEL "A"

BEGINNING AT A MEASURED POINT AT THE INTERSECTION OF THE NORTH LINE OF GEORGE STREET AND THE WEST LINE OF STRANDE AVENUE IN THE BISHOP OF CAMERON, PENNSYLVANIA, THENCE ALONG THE NORTH LINE OF GEORGE STREET N 41° 15' 00" E, 100.00 FT, THENCE N 50° 00' 00" E, 100.00 FT TO A POINT ON THE NORTH LINE OF THE WASHINGTON-CANONSBURG STREET RAILWAY, THENCE ALONG THE NORTH LINE N 50° 00' 00" E, 100.00 FT TO THE WEST LINE OF ADAMS STREET, THENCE ALONG THE WEST LINE OF ADAMS STREET S 41° 15' 00" E, 100.00 FT TO THE WEST LINE OF STRANDE AVENUE, THENCE ALONG THE WEST LINE OF STRANDE AVENUE S 50° 00' 00" E, 100.00 FT TO THE POINT OF BEGINNING.

CONTAINS 10.5 ACRES MORE OR LESS

PARCEL "B"

BEGINNING AT A POINT AT THE INTERSECTION OF THE EAST LINE OF RAND STREET AND THE WEST LINE OF STRANDE AVENUE IN THE BISHOP OF CAMERON, WASHINGTON COUNTY, PENNSYLVANIA, THENCE ALONG THE EAST LINE OF RAND STREET N 50° 00' 00" E, 100.00 FT, N 41° 15' 00" E, 100.00 FT TO A MEASURED POINT ON THE SOUTH LINE OF THE WASHINGTON-CANONSBURG STREET RAILWAY, THENCE ALONG THE SOUTH LINE N 50° 00' 00" E, 100.00 FT, THENCE S 41° 15' 00" E, 100.00 FT, THENCE S 50° 00' 00" E, 100.00 FT TO THE WEST LINE OF STRANDE AVENUE, THENCE ALONG STRANDE AVENUE S 50° 00' 00" E, 100.00 FT, S 41° 15' 00" E, 100.00 FT TO THE POINT OF BEGINNING.

CONTAINS 10.5 ACRES MORE OR LESS

PARCEL "C"

BEGINNING AT A POINT ON THE INTERSECTION OF THE EAST LINE OF STRANDE AVENUE AND THE NORTH LINE OF CONRAIL, THENCE ALONG THE EAST LINE OF STRANDE AVENUE N 50° 00' 00" E, 100.00 FT, N 41° 15' 00" E, 100.00 FT TO A MEASURED POINT ON THE NORTH LINE OF CONRAIL, THENCE ALONG THE NORTH LINE S 41° 15' 00" E, 100.00 FT, THENCE S 50° 00' 00" E, 100.00 FT TO A POINT ON THE NORTH LINE OF CONRAIL, THENCE ALONG SAID NORTH LINE S 50° 00' 00" E, 100.00 FT TO THE POINT OF BEGINNING.

CONTAINS 10.5 ACRES MORE OR LESS

FORM 3-74
United States Department of Energy
SITE DESCRIPTION & OWNERSHIPS
Inactive Mill Tailings Sites
CANONSBURG, PENNSYLVANIA

6-15-78

ROLLING CODE 6450-01-C

Appendix A
Modification NO. A002
Supplemental Agreement
U.S. Department of Energy
Agreement No.
DE-FC04-82AL19487

APPENDIX B

GENERAL PROVISIONS

To the extent that DOE and the State agree in writing pursuant to Article XI, "Procurement," that the State will procure supplies, equipment, construction, or services under this Agreement the following clauses are applicable:

1. Inspection

DOE through any authorized representative, has the right at all reasonable times, to inspect, or otherwise evaluate the work performed or being performed hereunder the premises in which it is being performed. If any inspection, or evaluation is made by DOE on the premises of the State or a subcontractor, the State shall provide and shall require his subcontractors to provide all reasonable facilities and assistance for the safety and convenience of DOE representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work.

2. Convict-Labor

In connection with the performance of work under this Agreement, the State agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1965 (18 U.S.C. 4082(c)(2)) and Executive Order 11755, December 29, 1973.

3. Clean Air and Water

a. The State agrees as follows:

- (1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by P.L. 91-604 and P.L. 95-95) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq., as amended by P.L. 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this Agreement.
- (2) That no portion of the work required by this Agreement will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this Agreement was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

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- (3) To use its best efforts to comply with clean air standards and clean water standards at the facility in which the Agreement is being performed.
- (4) To insert the substance of this clause into any nonexempt contract, including this paragraph 5.a.(4).

b. The terms used in this provision have the following meanings:

- (1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604 and P.L. 95-95).
- (2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S. 1251, et. seq., as amended by P.L. 92-500).
- (3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under Section 111(c) or Section 111(d), respectively, of the Air Act (42 U.S.C. 1857(c)-6(c) or (d)), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).
- (4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).
- (5) The term "compliance" means compliance with clean air or water standards during and after remedial action. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirements of the Air Act or Water and regulations issued pursuant thereto.

- (6) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a participant or subcontractor, to be utilized in the performance of an agreement or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

4. Flood Insurance

The State will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards. The State will comply with provisions prescribed by the Federal Insurance Administrator in 24 CFR Chapter X, Subchapter B.

5. Permits and Licenses

Except as otherwise agreed to by the Contracting Officer, the State shall procure all necessary permits or licenses and abide by all applicable laws, regulations and ordinances of the United States and of the State, territory, and political subdivision in which the work under this Agreement is performed.

6. Authorization and Consent

DOE hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this Agreement or any part hereof or any amendment hereto or any subcontract hereunder (including all lower-tier subcontracts).

7. Safety and Health

- a. The State shall take all reasonable precautions in the performance of the work under this Agreement to protect the health and assure the safety of employees and the public. The State shall comply with all applicable Federal, State, and local health and safety

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Agreement No. DE-FC04-82AL19487

regulations and requirements including but not limited to those established pursuant to the Occupational Safety and Health Act and with any additional safety and health standards and requirements (including reporting requirements) established by DOE which is to include compliance with DOE Order 5481.1, Safety Analysis and Review System.

Upon written instruction from the Contracting Officer, the State shall submit a management program and implementation plan to the Contracting Officer for review and approval.

- b. In the event that the State fails to comply with said regulations and requirements, the Contracting Officer may, without prejudice to any other legal or contractual rights of DOE, issue an order stopping all or any part of the work; thereafter a start order for resumption of work may be issued at the discretion of the Contracting Officer. The State shall make no claim for an extension of time or for an equitable adjustment, compensation or damages by reason of or in connection with such work stoppage.

Appendix C to
Modification No. A002
Supplemental Agreement to
U. S. Department of Energy
Agreement No. DE-FC04-82AL19487

APPENDIX C
DEPOSITORY SITES

MODIFICATION OF COOPERATIVE AGREEMENT

Page 1 of 1

1. Modification No. A003 2. Effective Date:
3. Purchase Request No. 04-84AL19487.500 4. Cooperative Agreement No. DE-FC04-82AL19487

5. Issued By:
Department of Energy
Albuquerque Operations Office
Contracts and Procurement Division
P.O. Box 5400
Albuquerque, NM 87115
6. State:
Commonwealth of Pennsylvania
Department of Environmental Resources
P. O. Box 2063
Harrisburg, PA 17120

7. Accounting and Appropriation Data (If Required):
N/A

8. ☐ The above numbered Cooperative Agreement is modified to reflect the administrative changes set forth in block 9.
☒ This agreement is entered into pursuant to authority of Uranium Mill Tailings Radiation Control Act of 1978, P.L. 95-604. It modifies the above numbered Cooperative Agreement as set forth in block 9.

Description of Modification:

(a) The parties have executed the Supplemental Agreement which is attached hereto.

Except as provided herein, all terms and conditions of the document referenced in block 4, as heretofore changed, remain unchanged and in full force and effect.

10. ☐ State/Indian Tribe is not required to sign this document.
☒ State is required to sign this document and return 3 copies to issuing office.

11. Execution of and Concurrence with the Supplemental Agreement:

See page 33 of the Supplemental Agreement.

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Supplemental Agreement to
U.S. Department of Energy
Agreement No. DE-FC04-82AL19487

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COOPERATIVE AGREEMENT

This SUPPLEMENTAL AGREEMENT, entered into between the UNITED STATES OF AMERICA (hereinafter called the "Government"), acting through the DEPARTMENT OF ENERGY (hereinafter called "DOE"), and the COMMONWEALTH OF PENNSYLVANIA (hereinafter called the "State"), acting through the DEPARTMENT OF ENVIRONMENTAL RESOURCES.

WITNESSETH THAT:

WHEREAS, the Uranium Mill Tailings Radiation Control Act of 1978, Public Law 95-604 (hereinafter called the "Act"), approved November 8, 1978, authorizes the Secretary of DOE to enter into agreements with affected States to cooperatively perform and share the costs of remedial action at those inactive uranium mill tailings sites and associated vicinity properties which have been or will be designated processing sites by the Secretary of DOE; and

WHEREAS, pursuant to the Act, the Secretary of DOE, on November 8, 1979, designated an inactive uranium mill tailings site in Canonsburg, Pennsylvania, as a processing site, thus making the site eligible for remedial action; and

WHEREAS, pursuant to the Act, the Secretary of DOE has assessed the potential health hazard to the public from the residual radioactive materials at the Canonsburg, Pennsylvania inactive uranium mill tailings site and has established the relative priorities for carrying out remedial action at such site; and

WHEREAS, DOE and the State entered into a cooperative agreement, effective September 5, 1980, for the purposes of establishing a plan of assessment and remedial action at the Canonsburg inactive uranium mill tailings site and any associated vicinity properties in order to stabilize and control such tailings in a safe and environmentally sound manner, to provide for acquisition of property by the State where determined appropriate by the Secretary, and to formally commit DOE and the State to the undertaking of their respective statutory responsibilities under the Act; and

WHEREAS, DOE and the State are mutually desirous of amending said cooperative agreement in certain respects and to incorporate the entire agreement of the parties into this Supplemental Agreement, including its appendices;

NOW THEREFORE, DOE and the State agree that the cooperative agreement is amended to make this Supplemental Agreement the entire agreement of the parties and provide as follows:

I. DEFINITIONS

As used throughout this Agreement, the following terms shall have the meanings set forth below:

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- I-A A. The term "Secretary" means the Secretary of Energy or any duly authorized representative thereof.
- NEW B. The term "DOE" means the United States Department of Energy or any duly authorized representative thereof, including the Secretary and the Contracting Officer.
- I-1 C. The term "Contracting Officer" means the person executing this Agreement on behalf of the Government, and any other officer or civilian employee who is properly designated as a Contracting Officer; and the term includes, except as otherwise provided in this Agreement, the authorized representative of a Contracting Officer acting within the limits of his authority, when so designated in writing to the State.
- I-B D. The term "Commission" means the United States Nuclear Regulatory Commission or any duly authorized representative thereof.
- I-C E. The term "Administrator" means the Administrator of the United States Environmental Protection Agency or any duly authorized representative thereof.
- I-D F. The term "State" means the Commonwealth of Pennsylvania or any duly authorized representative thereof.
- I-L G. The term "State Site Representative" means the Director, Bureau of Radiation Protection, and, as authorized by the Director, any duly authorized representative thereof. ✓
- I-E H. The term "person" means any individual, association, partnership, corporation, firm, joint venture, trust, government entity, and any other entity, except that such term does not include any Indian or Indian tribe.
- I-F I. The term "millsite" means the inactive uranium mill tailings site located in Canonsburg, Pennsylvania, including any residual radioactive materials thereon, which the Secretary has designated (44 F.R. 74891) pursuant to Section 102(a) of the Act to be a "processing site" and which is further described in Appendix A to this Agreement. ✓
- I-G J. The term "vicinity property" means any real property or improvement thereon which: (1) is in the vicinity of the mill-site; (2) is determined by the Secretary, in consultation with the State and the Commission, to be contaminated with residual radioactive materials derived from a millsite; and (3) the Secretary designates, during the term of this Agreement and ✓

pursuant to Section 102(e) of the Act, to be a "processing site"; and includes any residual radioactive materials thereon.

I-P

- K. The term "residual radioactive materials" means: (1) waste at a millsite or vicinity property, which DOE determines to be radioactive, in the form of tailings resulting from the processing of ores for the extraction of uranium and other valuable constituents of the ores; and (2) other waste, which DOE determines to be radioactive, at a millsite or vicinity property which relates to such processing, including any residual stock of unprocessed ores or low-grade materials.

NEW

- L. The term "tailings" means the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted.

I-Q

- M. The term "EPA Standards" means those standards, promulgated as standards by rule of the Administrator pursuant to Section 275 of the Atomic Energy Act, as amended, of general application for the protection of the public health, safety, and the environment from radiological and nonradiological hazards associated with residual radioactive materials located at mill sites, vicinity properties and depository sites.

I-R

- N. The term "depository site" means any site, which may include the mill site or vicinity property, used for the permanent disposition, stabilization and control of residual radioactive materials in accordance with and pursuant to this Agreement and Title I of the Act.

I-S

(Revised)

- O. The term "remedial action" means the assessment, design, construction, excavation, renovation, restoration, decommissioning and decontamination activities of DOE, or such person as it designates, which: (1) are directly related to the stabilization and control of residual radioactive materials at a millsite, vicinity property or depository site in a safe and environmentally sound manner in accordance with the EPA Standards and consistent with applicable Federal and State law; (2) with respect to millsites, are conducted after execution of a Remedial Action Plan; and (3) with respect to vicinity properties, are conducted in the development and preparation of a Radiological and Engineering Assessments or Remedial Action Plan, as appropriate; PROVIDED, that remedial action shall not include any maintenance or monitoring performed at a depository site after the State has transferred to the Government title to the residual radioactive materials and the depository site in accordance with the article hereof entitled "Acquisition, Disposition and Use of Property."

II-E

- P. The term "Remedial Action Plan" means the document developed pursuant to the article hereof entitled, "Description of Remedial Action Program," in order to define the remedial action to be performed at a millsite pursuant to this Agreement, including, where appropriate, removal of residual radioactive materials to a depository site, and which also includes a discussion of the proposed means of accomplishing such remedial action, the estimated costs of design and performance of remedial action, project status and technical information reporting requirements, and a schedule of activities for such remedial action.

NEW

- Q. The term "Radiological and Engineering Assessment" means the document developed pursuant to the article hereof entitled, "Description of Remedial Action Program," in order to define the remedial action to be performed at a vicinity property pursuant to this Agreement, and which includes a detailed radiological and engineering assessment of that vicinity property, and an estimated cost of design and performance of the remedial action.

NEW

- R. The term "environmental document" means a written public document, such as an environmental assessment or environmental impact statement, which contains an appropriate environmental analyses of the preferred remedial action and all reasonable alternatives, and which is prepared in such format and in accordance with such procedures as prescribed by the Council on Environmental Quality National Environmental Policy Act Regulations, 40 CFR Parts 1500-1508, and the DOE National Environmental Policy Act Guidelines, published at 45 FR 20694-20701 on March 28, 1980.

I-M

- S. The term "advance by Treasury check" means a payment made by DOE to the State by Treasury check, in accordance with the provisions of Treasury Circular No. 1075, upon request by the State before cash outlays are made for allowable costs incurred or anticipated to be incurred by the State.

I-N

- T. The term "reimbursement by Treasury check" means a payment made by DOE to the State by Treasury check upon request by the State for reimbursement for cash outlays made for allowable costs.

I-O
(Revised)

- U. The term "program income" means the State's share of proceeds from the management or disposal by the State of a millsite or other property pursuant to the article hereof entitled, "Acquisition, Disposition and Use of Property." X Program ✓

income does not include any interest earned on advances of Government funds pursuant to this Agreement.

I-K

- V. The term "subcontractor" means any contractor to the State and all tiers of subcontractors thereunder.

I-J

- W. Except as otherwise provided in this Agreement, the term "subcontracts" includes purchase orders under this Agreement.

II.

DESCRIPTION OF REMEDIAL ACTION PROGRAM

- A. The Secretary, pursuant to Section 102 of the Act, has designated a millsite located in Canonsburg, Pennsylvania, and has assigned a relative priority for carrying out remedial action as high.

NEW

This millsite is further described in Appendix A, Attachment 1, of this Agreement.

In addition, from time to time during the term of this Agreement, the Secretary shall, pursuant to Section 102 of the Act, designate vicinity properties and relative priorities for carrying out remedial actions at such sites. Upon such designation, DOE shall provide the State with a notice of such designation and a description of the vicinity property so designated.

II-B/C

- B. DOE, or such person as the Contracting Officer may designate, shall select and perform remedial actions at the mill sites, vicinity properties and depository sites in accordance with the EPA Standards and other applicable federal and State law. As further described herein, it is contemplated that the State will fully participate in the selection and performance of such remedial action. Remedial action shall be: (1) carried out, to the greatest extent practicable, in accordance with the priorities established by DOE pursuant to Section 102 of the Act, and published at 44 F.R. 74891, 74892 (1979); (2) performed using technology that will assure compliance with the EPA Standards and will assure the safe and environmentally sound stabilization of residual radioactive materials consistent with existing applicable law; and (3) performed in accordance with the applicable provisions of the Act, including the provisions of Section 108(b) regarding the remilling of residual radioactive materials.

II-D

XV/III-B

- C. Unless otherwise agreed by DOE and the State in writing, and except as provided in this Agreement, DOE shall procure, in

accordance with applicable DOE procurement policies and procedures and existing Federal law, all supplies, equipment, construction and services necessary for the performance of this Agreement. General provisions applicable to such DOE procurement are contained in Appendix B. The applicable standards and guidelines for any authorized procurement by the State of supplies, equipment, construction, and services pursuant to this Agreement shall, except as provided in Appendix B, be those provided in Attachment O to Office of Management and Budget (OMB) Circular A-102, as that Attachment was revised by OMB on August 1, 1979, and published in the Federal Register, Volume 44, No. 159, August 15, 1979, pp. 47874-47878; Provided, That such standards shall not apply to the State's acquisition of property pursuant to the article hereof entitled Acquisition, Disposition and Use of Property.

- D. Except as specifically provided elsewhere in this Agreement, it is contemplated that the general sequence of major activities by DOE and the State under this Agreement will be as set forth below. The activities that are cost-shared in accordance with the article hereof entitled Payments and Allowable Costs are specifically identified; otherwise, the costs incurred by either DOE or the State in connection with such activities will be borne by the party incurring the cost.

1. Remedial Action Concept. DOE prepared and submitted to the State and the Commission a draft Remedial Action Concept Paper (RACP) for the millsite. The draft RACP was utilized to coordinate initial planning of remedial action with the State and the Commission. The draft RACP included a brief evaluation of all reasonable remedial action options and a proposed remedial action option, a schedule for completion of remedial actions, a brief discussion of environmental, health and safety concerns, and a cost estimate. The State and the Commission reviewed the draft RACP and concurred in the draft RACP prior to its finalization by DOE.
2. Environmental Document. DOE prepared and submitted to the State and the Commission an environmental impact statement (EIS) document for the millsite, environmental assessment (EA) for the vicinity properties and otherwise complied with the requirements of the National Environmental Policy Act (NEPA). The Commission was a "cooperating agency," as that term is defined in 40 CFR Section 1508.5, in connection with the preparation of the EIS, and coordinated with DOE in the development of environmental assessments. The State assisted DOE, to

the extent agreed upon by DOE and the State, in scoping, scoping meetings, draft environmental impact statement hearings, and in connection with other NEPA process matters. In addition, the State reviewed and commented to DOE on any such environmental document prior to its finalization.

3. Design.

- II-F
XVIII - B
- a. Remedial Action Plans. For the millsite, DOE prepared a draft Remedial Action Plan for State concurrence. Upon concurrence by the State, DOE obtained Commission concurrence. The Remedial Action Plan shall be executed by DOE and the State and shall be incorporated into and made a part of this Agreement by this reference. Either DOE or the State may at any time request in writing that such Remedial Action Plan be revised and both DOE and the State agree to negotiate in good faith concerning any requested revision. Significant revisions to the Remedial Action Plan, as determined by DOE and the Commission, shall be concurred with by the Commission. Upon necessary concurrence with the Remedial Action Plan, DOE shall prepare a preliminary and final design of the remedial actions. (The preliminary and final design effort is cost-shared.)

b. Radiological and Engineering Assessments (Cost-Shared). For each vicinity property:

- NEW
- (1) DOE shall prepare and submit to the State a draft Radiological and Engineering Assessment.
- (2) The State shall review the Radiological and Engineering Assessment and shall concur with the proposed remedial action: Such State concurrence shall not be unreasonably withheld. DOE and the State agree to negotiate in good faith concerning any revisions of the Radiological and Engineering Assessment. ✓
- (3) The Commission shall concur with the Radiological and Engineering Assessment only in those instances of an unusually significant vicinity property which may warrant, in the opinion of DOE and the Commission, an individual Remedial Action Plan or environmental

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document, or both, because of size, location, cost, remedial action feasibility, or schedule considerations. In the event a Remedial Action Plan is warranted, DOE shall prepare a Draft Remedial Action Plan for State review and concurrence prior to finalization of such Plan. Such State concurrence shall not be unreasonably withheld. Either DOE or the State may at any time request in writing that such Plan be revised and both DOE and the State agree to negotiate in good faith concerning any requested revision. Significant revisions to this Plan, as determined by DOE and the Commission, shall be concurred with by the Commission.

- NEW
4. Obligation of Funds. Pursuant to the article hereof entitled Cost Limitation and Obligation of Funds, DOE and the State shall obligate funds from time to time for remedial actions based upon preliminary cost estimates by DOE and the State. In the case of millsites, such estimates shall be based upon the Remedial Action Plans. For vicinity properties, such estimates shall be by mutual agreement of the parties.
- XVIII - C
5. Remedial Actions (Cost-Shared). After preparation of the final design in the case of a millsite or a Radiological and Engineering Assessment in the case of a vicinity property, DOE shall carry out the decontamination, excavation, demolition, decommissioning, renovation, restoration, construction, stabilization and other remedial action activities as necessary to ensure compliance with the EPA Standards and other applicable federal and State law. DOE, with the concurrence of NRC, shall certify that the remedial actions are completed at each millsite, vicinity property and depository site.
- XVIII - A
6. Acquisition of Property (Cost-Shared). Remedial action shall not be implemented until any necessary acquisition of the affected millsite, vicinity property or depository site, or any interest therein, has been made pursuant to the article hereof entitled "Acquisition, Disposition and Use of Property."
7. Interim Maintenance and Surveillance. After completion of remedial actions, DOE shall perform monitoring and

maintenance activities at the depository sites pending issuance of a license to DOE (or other federal agency) by the Commission setting forth the long-term monitoring and maintenance of the depository sites.

- V - H
8. Federal Custody of Depository Site. Custody of depository sites, and other property title to which the State transfers to the Government under this Agreement, shall be assumed by DOE or such other federal agency as the President may designate. Upon completion of remedial actions, such depository sites and other property shall be maintained by DOE or such other federal agency pursuant to a license issued by the Commission in such manner as will protect the public health, safety, and the environment. The Commission may, pursuant to such license or by rule or order, require DOE or such other federal agency to undertake monitoring, maintenance and emergency measures necessary to protect public health, safety, and the environment.

III. ACQUISITION, DISPOSITION, AND USE OF PROPERTY

- V - A
- A. DOE and the State have agreed to acquire two depository sites in connection with remedial actions under this Agreement. One depository site is located in Canonsburg, Pennsylvania and one is located in Burrell Township, Pennsylvania. The two depository sites are described in Appendix C - Depository Sites. ✓

- B. In connection with the depository sites, the acquisition responsibilities of DOE and the State are as follows:

1. The State shall:

- V - K/L/M
(Revised)
- a. Acquire fee simple title to the millsite, including any residual radioactive materials located thereon. The State, upon direction from DOE, has initiated a condemnation action for title to the millsite and has partially settled that action. The State shall pursue such condemnation action (including but not limited to hiring experts and preparing exhibits) in accordance with the State eminent domain code, other applicable law, and such other requirements agreed upon by DOE and the State; Provided, that every appeal or settlement in connection with such action shall be in consultation with the Contracting Officer. ✓

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- V-P
- b. Provide relocation assistance to all persons relocated in connection with acquisition of the millsite by the State pursuant to this Agreement. Such relocation assistance shall be pursuant to applicable State law of eminent domain; Provided, that should there be no applicable State law, any relocation assistance by the State shall be consistent with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, Sections 201 through 204, inclusive. } ✓

- NEW
- c. Manage and maintain the millsite, including, but not limited to the execution of appropriate lease or rental agreements as necessary, collection of rents, and payment of utilities, until such time as agreed upon by DOE and DER. } ✓

- V-F
- d. Assure that DOE, the Commission, the Administrator, and the State shall have a right of entry to perform remedial actions and to inspect the millsite at any time from the time the State acquired the millsite until the time the State transfers title to the millsite to the Government, in furtherance of the provisions of Title I of the Act and to carry out this Agreement and to enforce the provisions of the Act and any rules prescribed thereunder.

- (Moved old "e" to Article X B
- e. Forward to the Contracting Officer: (i) two copies of any deed or easement, right of entry, license or other temporary interest conveyance to the State; (ii) two copies of any declaration of taking or judgment; and (iii) a copy of all pleadings, motions or other papers filed in connection with any condemnation proceeding.

- V-H
- f. Transfer to the Government, when the Secretary (with the concurrence of the Commission) determines that remedial action is completed in accordance with the EPA Standards and other requirements of Title I of the Act, title to the millsite and any residual radioactive materials located thereon.

2. DOE shall:

- NEW
- a. Acquire, pursuant to federal law, regulations and procedures, fee simple title to the portion of the

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Canonsburg depository site shaded in red in Appendix C and fee simple title to the Burrell Township depository site. ✓

- b. Provide relocation assistance to all persons relocated in connection with acquisition of property by DOE pursuant to this Agreement. Such relocation assistance shall be pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646.
- c. Administer any abandonment and relocation of public utility easements or rights-of-way of record and municipal streets, roads or highways of record in connection with the Canonsburg depository site. ✓
(Moved old "d." to Article X.A.)
- d. In connection with its acquisition responsibilities under this Agreement, the parties acknowledge that DOE will utilize the real estate services of the United States Army Corps of Engineers, Huntington District.

V-0
C. When the State transfers title to the Government to the mill-site pursuant to this Article, the State shall forward to the Contracting Officer a deed which conforms to applicable State law and the "Standards for the Preparation of Title Evidence in Land Aquisitions by the United States" (hereinafter referred to as the "Federal Title Standards") issued by the Department of Justice, and which:

- 1. Is a special warranty deed. This requirement may be waived by the Contracting Officer, upon a proper showing, as to conveyances by the State acting solely in a representative capacity. } ✓
- 2. Shows the name of the State as grantor in the body of the deed and its acknowledgment.
- 3. Conveys the land to the "United States of America and its assigns."
- 4. Contains a proper description of the land.
- 5. Conveys by quitclaim all the right, title and interest of the State as grantor in and to any alleys, streets, ways, strips, or gores abutting or adjoining the land. ✓

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6. Contains no reservations or exceptions not approved by the Contracting Officer; however, when land is to be conveyed subject to certain rights, such as easements or mineral rights thought to be outstanding in third parties, they must not be excepted from the conveyance, but the deed shall be framed to convey by quitclaim all the State's right, title, and interest subject to the outstanding rights. ✓
7. Refers to the deed(s) to the State, or other source of the State's title, by book, page, and place of record, wherever customary or required by statute.
8. Contains a reference to DOE as the Government agency for which the lands are being acquired. This statement should follow the description of the land and in no instance should it be included in the granting, habendum or warranty provisions of the deed.
9. Is signed, sealed, attested, and acknowledged by the State as grantor as required by applicable State law.
10. If executed by an attorney in fact, is signed in the name of the principal by the attorney, properly acknowledged by the attorney as the free act and deed of the principal, and is accompanied by the original or a certified copy of the power of attorney and satisfactory proof that the principal was living and the power in force at the time of its exercise.

Upon the request of the Contracting Officer, the State shall provide such additional documentation or information that will assist DOE in preparing title evidence and otherwise complying with the Federal Title Standards.

- V-H
- NEW
- D. After transfer of title to the millsite by the State to DOE, DOE or such other agency designated by the President of the United States, shall be responsible for maintenance, monitoring and control of such property.
 - E. In connection with the acquisition of real estate under this Agreement, it may be necessary for DOE or the State to acquire and dispose of items of personal property such as machinery and equipment. Acquisition and disposal of such personal property shall be in accordance with the regulations and procedures of the party making the acquisition; Provided, that DOE and the State shall, in good faith, attempt to reconcile any differences between State and federal regulations and } ✓

procedures prior to such acquisition or disposal. In any case, no such personal property shall be disposed of until such time as the Contracting Officer's Representative and the State Site Representative agree that it would not be hazardous to the public health, safety and environment to do so. DOE and the State shall share in the proceeds of any disposal at the same ratio that allowable costs are shared under this Agreement. ✓

- V-E
- F. The State and DOE shall, prior to any remedial action at a vicinity property pursuant to this Agreement, obtain from any person holding any record interest in the vicinity property, execution of a Vicinity Property Remedial Action Agreement, in a form prescribed by the Contracting Officer, which provides for the State and DOE to perform remedial action at the vicinity property. Such agreement shall: (1) include a waiver by each such person on behalf of himself, his heirs, successors and assigns (i) releasing the Government and State of any liability or claim thereof by such person, his heirs, successors and assigns concerning such remedial action, and (ii) holding the Government and State harmless against any claim by such person on behalf of himself, his heirs, successors, or assigns arising out of the performance of any such remedial action; (2) specify the remedial action to be performed; (3) provide that the remedial action shall be performed only by the DOE or such person as the Contracting Officer designates; (4) include a consent to the remedial action by such person; (5) include as parties the State, DOE, and each such person holding any record interest in the millsite or vicinity property; (6) provide for a right of entry to DOE, the Commission, the Administrator and the State for the purpose of inspecting the vicinity property at any time during the term of the Agreement for the purpose of carrying out the Act; and (7) provide for transfer of title to the residual radioactive materials thereon to the Government. Whenever the State and DOE are unable to obtain a Vicinity Property Remedial Action Agreement, DOE and the State shall determine how to proceed in connection with the site, which may include, but is not limited to, a determination that no remedial action shall be performed at the subject site. ✓

- V-J
- G. The State shall take such action as may be necessary, pursuant to regulations of the Secretary and with the consent of the person who owns the property at the time remedial action is performed, to assure that any person who purchases a vicinity property after the removal of radioactive materials from such site shall be notified prior to purchase of the nature and extent of residual radioactive materials removed from the

site, including notice of the date when such action took place, and the condition of such site after such action. If the State is the owner of such site, the State shall so notify any prospective purchaser before entering into a contract, option, or other arrangement to sell or otherwise dispose of such site.

NEW

- H. From time to time DOE and the State may agree that in order to effectuate the most practicable remedial action at a vicinity property, the vicinity property should be acquired. In such cases, DOE shall acquire the vicinity property and any residual radioactive materials located thereon.

IV. PAYMENTS AND ALLOWABLE COSTS

- A. Allowable costs incurred by the State shall be those direct costs, as determined by the Contracting Officer in accordance with Office of Management and Budget Circular No. A-87, incurred to:

IV-B

(Revised)

1. perform any State responsibility under the article hereof entitled, "Acquisition, Disposition and Use of Property";
2. conduct remedial action pursuant to and in accordance with the terms and conditions of this Agreement; and
3. reimburse, in accordance with the terms and conditions of Section 103(f) of the Act, property owners for remedial action performed at vicinity properties prior to passage of the Act.

Allowable costs incurred by the State shall also include such other costs in connection with performance of the remedial action as may be approved by the Contracting Officer in writing or as otherwise mutually agreed to in writing by DOE and the State. Allowable costs shall not include the administrative costs incurred by the State to develop, prepare, and carry out this Agreement, but shall include the administrative costs associated with the performance by the State of its responsibilities under the articles hereof entitled, "Acquisition, Disposition, and Use of Property," and "State Financial Management System," including costs of "compensation for personal services," "legal expenses," "travel," and "communications," as those categories are described in OMB Circular No. A-87.

B. Allowable costs incurred by DOE shall be those direct costs, as determined by the Contracting Officer in accordance with the general principles set forth in OMB Circular No. A-87, incurred to:

1. conduct remedial action pursuant to and in accordance with the terms and conditions of this Agreement;
2. reimburse, in accordance with the terms and conditions of Section 103(f) of the Act, property owners for remedial action performed at vicinity sites; and
3. perform any DOE responsibility under the article hereof entitled "Acquisition, Disposition and Use of Property."

C. DOE shall make payment for ninety percent (90%) of all allowable costs by advance or reimbursement by Treasury check, and the State shall make payment for ten percent (10%) of all allowable costs by cash contribution. The term "cash contribution" means the State's cash payment from non-Government funds for its share of allowable costs. Such cash payments: (i) shall not be included as contributions for any other Government assistance program; (ii) shall not be made from funds paid by the Government under any other Government assistance program; and (iii) shall otherwise conform to the provisions of this Agreement and the Act.

D. The State shall submit quarterly, or at more frequent intervals by mutual agreement between the State Site Representative and the Contracting Officer, OMB Standard Form 270, "Request for Advance or Reimbursement," to request payment for the DOE share of allowable costs incurred by the State. The State shall submit the OMB Standard Form 270, original and two copies, to the Contracting Officer. DOE shall promptly make advance by Treasury check pursuant to the article hereof entitled "Advance Payments," or reimbursement by Treasury check, or a combination thereof, as payment to the State for a maximum of ninety percent (90%) of allowable costs. In lieu of DOE payment to the State by advance or reimbursement by Treasury check, the State may submit an OMB Standard Form 270 showing allowable costs incurred by the State and requesting that the Contracting Officer offset such costs against the State's share (10%) of the total allowable costs. } ✓

E. DOE shall submit quarterly, or at more frequent intervals by mutual agreement between the State Site Representative and the Contracting Officer, Standard Form 1114, "Bill for Collection," supported by a statement of allowable costs incurred by

(Revised) { DOE. DOE shall submit the Standard Form 1114, original and two copies, to the State Site Representative. Prompt payment shall be made by the State for ten percent (10%) of allowable costs. In lieu of such payment by the State to DOE, the State may submit an OMB Standard Form 270 showing allowable costs incurred by the State and requesting that the Contracting Officer offset such costs against the State's share (10%) of the total allowable costs. } ✓

- F. Program income earned during the term of this Agreement may, at the State's option, be retained by the State, or used to finance the State's share of the allowable costs.

V. ADVANCE PAYMENTS

- NEW A. At the request of the State, in accordance with the article hereof entitled, "Payments and Allowable Costs," and subject to the conditions hereinafter set forth, DOE shall make an advance payment, or advance payments from time to time, by Treasury check, to the State. No advance payment shall be made: (1) without the approval of the Contracting Officer as to the financial necessity therefor; and (2) without the submission by the State of OMB Standard Form 270 and properly certified invoice or invoices.
- NEW B. Funds advanced to the State by DOE under this Agreement may be used by the State solely for the purposes of making payments for items of allowable cost as defined in the article hereof entitled, "Payments and Allowable Costs," or to reimburse the State for such items of allowable costs, and for such other purposes as the Contracting Officer may approve in writing. Any interpretation required as to the proper use of such funds shall be made in writing by the Contracting Officer.
- NEW C. The State may at any time repay all or part of the funds advanced hereunder. Whenever so requested in writing by the Contracting Officer, the State shall repay to the Government such part of the unliquidated balance of advance payments as shall, in the opinion of the Contracting officer, be in excess of current requirements.
- NEW D. If upon completion or termination of this Agreement all advance payments have not been fully liquidated, the balance thereof shall be deducted from any sums otherwise due or which may become due to the State from the Government, and any deficiency shall be paid by the State to the Government upon demand.

XXV

NEW

NEW

- E. Funds advanced hereunder must be deposited in a member bank of the Federal Reserve System, or an "insured" bank within the meaning of the act creating the Federal Deposit Insurance Corporation (Act of August 23, 1935, 49 Stat. 684, as amended; 12 U.S.C. 264).
- F. Any and all advance payments made under this Agreement shall be secured, when made, by a lien in favor of the Government, paramount to all other liens, upon any millsite, vicinity property, depository site, residual radioactive materials, and on all material and other property acquired for or allocated to the performance of this Agreement, except to the extent that the Government, by virtue of any other provision of this Agreement, or otherwise, shall have valid title to such property as against other creditors of the State. Such lien arises by virtue of this Agreement and without need for executing or recording further documents. The State shall identify, by marking or segregation, all property which is subject to a lien in favor of the Government by virtue of any provision of this Agreement in such way to indicate that it is subject to such lien and that it has been acquired for or allocated to the performance of this Agreement; PROVIDED, That in the case of real property, or residual radioactive materials purchased by the State under this Agreement, the State shall not convey or encumber, or suffer to be encumbered, such property except in favor of the Government or to the extent otherwise allowed under this Agreement. The State shall maintain adequate accounting control over such property on its books and records. If the State is authorized to sell or retain property acquired for or allocated to this Agreement, such sale or retention shall be made only if approved by the Contracting Officer, which approval shall constitute a release of the Government's lien hereunder to the extent that such property is sold or retained, and to the extent that the proceeds of the sale are applied in reduction of advance payments then outstanding hereunder. ✓
- G. Upon a finding by the Contracting Officer that the State has failed to observe any of the covenants, conditions or warranties of this article, the Government, without limiting any rights which it may otherwise have, may, in its discretion and upon written notice to the State, withhold further payments on this Agreement. Upon the continuance of any such failure for a period of thirty (30) days after such written notice to the State, the Government may, in its discretion, and without limiting any other rights which the Government may have, take the following additional actions as it may deem appropriate in the circumstances:

1. Demand immediate repayment of the unliquidated balance of advance payments hereunder; or
2. Take possession of and, with or without advertisement, sell at public or private sale, at which the Government may be the purchaser, all or any part of the property on which the Government has a lien under this Agreement, and, after deducting any expenses incident to such sale, apply the net proceeds of such sale in reduction of any other claims of the Government against the State.
- I. Notwithstanding any other provision of this Agreement, the State shall not transfer, pledge, or otherwise assign this contract, or any claim arising thereunder, to any party or parties, bank, trust company, or other financing institution.
- J. The terms of this Agreement shall be considered adequate security for advance payments hereunder, except that if at any time the Contracting Officer deems the security furnished by the State to be inadequate, DOE and the State, after negotiating in good faith, shall agree upon additional security to be provided for advance payment.

NEW

NEW

VI.

COST LIMITATION AND OBLIGATION OF FUNDS

- A. From time to time in performing responsibilities under this Agreement, DOE and the State shall each incur costs which are allowable costs to be cost-shared under this Agreement. Prior to the beginning of each Government fiscal year or such other period of time agreed to by DOE and the State (hereinafter referred to as the "Cost Estimate Period"), DOE and the State shall use their best efforts to estimate the costs each will incur during the forthcoming Cost Estimate Period. It is contemplated by DOE and the State that each will obligate funds at such times and in such amounts as will ensure payment by each of its appropriate share of the total estimated allowable costs to be incurred by DOE and the State. DOE and the State acknowledge that the State, in incurring allowable costs, may, in accordance with Article V, "Payments and Allowable Cost," request advance payment for the DOE share of such allowable costs or that such costs be offset against the State's share of the total allowable costs.

After each such Cost Estimate Period, DOE and the State shall attempt to identify the actual costs incurred during that Cost Estimate Period.

XVI

XXVII-K

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- B. 1. For each past Cost Estimate Period under this Agreement, the actual costs incurred by the parties are as follows:
- a. Cost Estimate Period Number 1 -
- September 5, 1981 through September 30, 1983:
- | | |
|--------------------------|-----------------|
| (1) State - \$1,754,162; | NOTE: Includes |
| (2) DOE - \$3,763,888; | Corp of |
| (3) Total - \$5,518,050. | Engineer costs. |
2. For Cost Estimate Period Number 2, the estimated allowable costs to be incurred are as follows -
- a. October 1, 1983 through September 30, 1984:
- | | |
|---|---|
| (1) State - One Hundred and Fifty Thousand Dollars (\$150,000); | } |
| (2) DOE - Eight Million, Six Hundred and Thirty Thousand Dollars (\$8,630,000); | |
| (3) Total - Eight Million, Seven Hundred and Eighty Thousand Dollars (\$8,780,000). | |
3. The total of the estimated allowable costs that will be incurred by the State from the effective date of this Agreement through the latest Cost Estimate Period shown above is - \$1,904,162 - .
4. The total of the estimated allowable costs that will be incurred by DOE from the effective date of this Agreement through the latest Cost Estimate Period shown above is - \$12,393,888 - .
5. The total of the estimated allowable costs that will be incurred by both DOE and the State from the effective date of this Agreement through the latest Cost Estimate Period shown above is - \$14,298,050 - (hereinafter referred to as the "Total Cost Limitation").
- C. At such time as either party has reason to believe that the allowable costs it will incur in performing its responsibilities under this Agreement will be greater than the estimated allowable costs shown above, then such party shall notify the other in writing to that effect, giving its revised estimate of allowable costs, and DOE and the State shall execute a modification to this Agreement appropriately revising the estimated allowable costs shown above; Provided, that, prior to

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being included as part of the Total Cost Limitation, the estimated allowable costs associated with remedial action shall be established and revised by execution and modification of Remedial Action Plans and Radiological Engineering Assessments, as appropriate, pursuant to Article II, "Description of Remedial Action Program."

- D. The State, for the Cost Estimate Period, has obligated funds in the amount of \$1,429,805.00, for payment of its share of allowable costs under this Agreement. The State shall not be liable in an amount in excess of the funds it has obligated herein; however, DOE shall not be required to continue performance of this Agreement beyond such time as the Total Cost Limitation exceeds an amount 10 times the amount of the funds obligated by the State. Prior to each Government fiscal year or from time to time during the performance of this Agreement, as necessary, the State shall increase the amount of funds obligated by written notice to the Contracting Officer specifying the amount of such increase. Upon such written notice DOE and the State shall execute a modification to this Agreement which reflects the increased obligation of funds by the State. In the event the State fails to obligate funds at a level necessary to ensure payment of its share of the Total Cost Limitation, DOE may elect to treat such failure as a termination by the State pursuant to the article of this Agreement entitled "Term and Termination." ✓
- E. DOE, for the Cost Estimate Period: (1) has obligated funds in the amount of \$1,713,745.80 for payment to the State for DOE's share of allowable costs which the State incurs under this Agreement; and (2) will obligate funds in an amount sufficient to pay to DOE contractors and subcontractors DOE's share of those allowable costs which DOE incurs under this Agreement. DOE shall not be liable to the State in an amount in excess of the funds it has obligated herein for payment to the State; however, the State shall not be required to continue performance of this Agreement beyond such time as such amount obligated by DOE is less than 90% of the amount shown in paragraph B.3. of this article. Prior to each Government fiscal year or from time to time under this Agreement, as necessary, DOE shall increase the amount of funds obligated by unilateral modification to this Agreement which reflects the increased obligation of funds by DOE. In the event DOE fails to obligate funds at a level necessary to ensure payment of its share of the total allowable costs to be incurred by the State, the State may elect to treat such failure as a termination by the State pursuant to the article of this Agreement entitled "Term and Termination." ✓

- F. The State shall not be required to pay for allowable costs incurred in excess of 10% of the Total Cost Limitation as it may be amended from time to time by modification to this Agreement. DOE shall use its best efforts to perform its responsibilities under this Agreement within the estimated allowable costs set forth in paragraph B.4. of this article. However, the Government and DOE do not guarantee the correctness of any such estimate of allowable costs and there shall be no liability on the part of the Government or DOE by reason of errors in the computation of estimates or differences between such estimates and the actual allowable costs.
- G. DOE shall not be required to pay for allowable costs incurred in excess of 90% of the Total Cost Limitation as it may be amended from time to time by modification to this Agreement. The State shall use its best efforts to perform its responsibilities under the Agreement within the estimated allowable costs set forth in paragraph B.3. of this article. However, the State does not guarantee the correctness of any such estimate of allowable costs and there shall be no liability on the part of the State by reason of errors in the computation of estimates or differences between such estimates and the actual allowable costs.

VII.

STATE FINANCIAL MANAGEMENT SYSTEM

The State shall assure that its financial management system provides for:

- XXIV
- A. Accurate, current and complete disclosure of the financial results of the State's participation in the remedial action program, carried out pursuant to this Agreement and the Remedial Action Plan.
- B. Records that identify adequately the source and application of funds for activities supported pursuant to this Agreement. These records shall contain information pertaining to authorizations, obligations, unobligated balances, assets, liabilities, outlays, and program income.
- C. Effective control over and accountability for all funds, property, and other assets. The State shall adequately safeguard all such assets and shall assure that they are used solely for authorized purposes.
- D. Comparison of actual outlays with budgeted or otherwise authorized amounts.

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- E. Procedures to minimize the time elapsing between transfer of funds from the U.S. Treasury and the disbursement by the State, whenever funds are advanced by the Government.
- F. Procedures for identifying the reasonableness of costs.
- G. Accounting records that are supported by adequate and reasonable source documentation.
- H. Examinations in the form of audits which meet the requirements set forth in Office of Management and Budget (OMB) Circular A-102, Attachment P, as that Attachment was revised by OMB effective October 22, 1979, and published in the Federal Register, Volume 45, No. 65, April 2, 1980, pp. 21875-21878, and which are in accordance with the "Guidelines for Financial and Compliance Audits of Federal Assisted Programs," issued by the United States General Accounting office.
- I. A systematic method to assure timely and appropriate resolution of audit findings and recommendations.

VIII. AUDIT

- A. The State shall maintain, and the Contracting Officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all allowable costs claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times of the State's plants, or such parts thereof, as may be engaged in the performance of this Agreement as to cost or pricing data submitted by the State.

III - F
XXVII - (D) (a)
- B. If the State submitted or submits cost or pricing data in connection with the pricing of this Agreement or any other change or modification thereto, unless such pricing was based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or process set by law or regulation, the Contracting Officer or his representatives who are employees of the United States Government shall have the right to examine all books, records, documents, and other data of the State related to the negotiation, pricing or performance of such Agreement, change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted. Additionally, in the case of pricing any change or modification exceeding \$1,000,000 to formally advertised agreements, the Comptroller General of the

XXVII - (D) (b)

United States or his representatives who are employees of the United States Government shall have such rights. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projects used therein.

- C. The materials described in paragraphs A. and B. above shall be made available at the offices of the State, at all reasonable times, for inspection, audit or reproduction, until the expiration of three years from the date of final payment under this Agreement or such lesser time specified in Part 1-20 of the Federal Procurement Regulations (41 CFR Part 1-20) and for such longer period, if any, as is required by applicable statute, or by other articles or clauses of this contract, or by 1. and 2. below:

1. If this Agreement is completely or partially terminated, the records relating to the work terminated shall be made available for a period of three years from the date of any resulting final settlement.
2. Records which relate to appeals or disputes or litigation or the settlement of claims arising out of the performance of this Agreement, shall be made available until such appeals, litigation, or claims have been disposed of.

IX. STATE AUDIT AND EXAMINATION OF DOE RECORDS

- A. DOE shall maintain, in accordance with Government policy and practice, and the State Site Representative or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all allowable costs claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times of DOE's facilities, or such parts thereof, as may be engaged in the performance of this Agreement as to cost or pricing data submitted by the DOE.
- B. The materials described in paragraph A. above shall be made available at the offices of the Contracting Officer, at all reasonable times, for inspection, audit or reproduction, until the expiration of three years from the date of final payment under this Agreement and for such longer period, if any, as is required by applicable statute, or by other articles or clauses of this contract, or by 1. and 2. below:

1. If this Agreement is completely or partially terminated, the records relating to the work terminated shall be made available for a period of three years from the date of any resulting final settlement.
2. Records which relate to appeals or disputes or litigation or the settlement of claims arising out of the performance of this Agreement, shall be made available until such appeals, litigation, or claims have been disposed of.

X. REPORTING REQUIREMENTS

XVII - A
NEW { A. DOE shall inform the State Site Representative of the status of activities under this Agreement as major milestones are reached but in no event less frequently than quarterly. With respect to DOE acquisition of the depository sites, DOE shall provide periodic, but no less than quarterly, reports to the State Site Representative regarding the status of such acquisition, including a schedule of future activities, a narrative summary of past activities, an estimate of costs to be incurred, an itemization of costs incurred, and any comments or recommendations for State consideration. } ✓

XVII - B
NEW { B. Upon the request of the Contracting Officer, the State shall submit to the Contracting Officer progress and financial reports of its activities in the performance of this Agreement; Provided, that with respect to State acquisition of the millsite, relocation assistance, and management of the millsite, the State shall provide periodic, but no less than quarterly, reports to the Contracting Officer regarding the status of such activities, including a schedule of future activities, a narrative summary of past activities, an estimate of costs to be incurred, and any comments or recommendations for DOE consideration. } ✓

XVII - C
C. The State shall submit annually, commencing one year from the effective date of this Agreement, to the Contracting Officer, OMB Standard Form 269, "Financial Status Report," to report the status of funds paid to the State by DOE pursuant to this Agreement. DOE shall request that the reports be either on a cash or accrual basis. If DOE requests accrual information and the State's accounting records are not normally kept on the accrual basis, the State shall not be required to convert its accounting system but shall develop such accrual information through an analysis of the documentation on hand. The State shall submit a final Financial Status Report upon close-out of this Agreement in accordance with the article hereof

entitled, "Closeout Procedures." The State shall submit the OMB Standard Form 269, original and two copies, to the Contracting Officer no later than 90 days after the end of the specified reporting period for the annual and final reports. Reasonable extensions to reporting due dates may be granted by the Contracting Officer upon written request of the State.

XVII - D

- D. The State shall supply to DOE such additional financial information as is requested in writing by DOE to comply with Congressional requirements.

XI. EXAMINATION OF RECORDS

XI

- A. The State agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this Agreement or such lesser time specified in the Federal Procurement Regulations, Part 1-20, have access to and the right to examine any directly pertinent books, documents, papers, and records of the State involving transactions related to this Agreement.
- B. The State further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under the subcontract or such lesser time specified in the Federal Procurement Regulations, Part 1-20, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (1) purchase orders not exceeding \$10,000 and (2) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.
- C. The periods of access and examination described in A and B, above, for records which relate to (1) litigation or the settlement of claims arising out of the performance of this Agreement, or (2) costs and expenses of this Agreement as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims, or exceptions have been disposed of.
- D. The State shall report to the Secretary promptly and in reasonable written detail, each notice or claim of patent or

copyright infringement based on the performance of this Agreement of which the State has knowledge.

- E. In the event of any claim or suit against the Government, on account of any alleged patent or copyright infringement arising out of the performance of this Agreement or out of the use of any supplies furnished or work or services performed hereunder, the State shall furnish to the Government, when requested by the Secretary, all evidence and information in possession of the State pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the State has agreed to indemnify the Government. } ✓
- F. DOE may request, and the State shall, transfer to the custody of DOE copies of certain records maintained by the State pursuant to this Agreement when DOE determines that the records possess long-term retention value. In order to avoid duplicate recordkeeping, DOE may make arrangements with the State to retain any records that are continuously needed for joint use.

XII. CONTRACTING OFFICER'S REPRESENTATIVE

NEW
The work to be performed by DOE under this Agreement will be managed for DOE by the Manager, Uranium Mill Tailings Remedial Actions (UMTRA) Project. The work to be performed by the State under this Agreement is subject to the monitoring of the Manager, Uranium Mill Tailings Remedial Actions (UMTRA) Project Office, who has been designated by the Contracting Officer as "Contracting Officer's Representative" (COR). A copy of such designation shall be furnished to the State. Said designation shall set forth the COR's responsibilities regarding this Agreement. The COR shall not make any commitments or authorize any changes which affect the Agreement scope, price, terms or conditions; any request for such changes shall be referred to the Contracting Officer for action.

XIII. TERM AND TERMINATION

- XII - A
A. The period of performance of this Agreement shall expire at the earliest effective date that: (1) DOE and the State mutually agree in writing, with the concurrence of the Commission, that the objectives of the remedial action program have been met and that all work to be performed under this Agreement, or any modification or amendment hereto, has been completed; or (2) the date seven years from the date of promulgation of the EPA Standards or such other date as Congress shall establish,

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after the date of enactment of the Act, as the date of termination of the Secretary's authority to perform remedial action under the Act.

- XII-B
- B. DOE and the State may terminate this Agreement in whole, or in part, when both parties agree that continuation of the project would not produce beneficial results commensurate with the further expenditure of funds. The two parties shall agree upon the termination conditions, including the effective date and, in the case of partial terminations, the portion to be terminated. Neither party shall incur new obligations for the terminated portion after the effective date. The parties shall cancel as many outstanding obligations as possible. Full credit shall be allowed by each party for non-cancellable obligations properly incurred by the other party prior to the termination. ✓

- XII-C
- C. DOE, upon written Notice of Termination to the State, may terminate this Agreement, in whole, or from time to time, in part, whenever the Contracting Officer determines that the State has failed to comply with the conditions of this Agreement and such non-compliance continues for 60 days after receipt of a written Notice of Default from DOE. For purposes of this Article, the failure by the Pennsylvania Legislature to appropriate funds shall not constitute failure by the State to comply with the conditions of this Agreement.

- NEW
- D. The State, upon written Notice of Termination to DOE, may terminate this Agreement whenever the State Site Representative determines that DOE has failed to comply with the conditions of this Agreement and such non-compliance continues for 60 days after receipt of a written Notice of Default from the State. For purposes of this Article, failure by the United States Congress to appropriate funds shall not constitute failure by DOE to comply with the conditions of this Agreement.

- XII-D
- E. After receipt of a Notice of Termination by either party, DOE and the State shall close out this Agreement in accordance with the terms and conditions of the article hereof entitled, "Closeout Procedures"; Provided, that DOE may, in its discretion, continue unilateral performance of this Agreement, including performance of the State's responsibilities, until such time as the remedial action contemplated by this Agreement and the Remedial Action Plan is completed. ✓

- XII-E
- F. Neither DOE nor the State shall be considered in default of this Agreement because of delay in performance for reasons beyond its control including, but not restricted to, acts of

God or the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or unusually severe weather.

- G. In the event appropriated funds are not available to the State to carry out this Agreement:

- XII - E
1. DOE shall have the right to continue unilateral performance of the remedial action contemplated by this Agreement, including performance of the State's responsibilities, without cost to the State, until such time as the remedial action contemplated by this Agreement and the Remedial Action Plan is completed. ✓
 2. DOE and the State shall close out this Agreement pursuant to the article hereof entitled, "Closeout Procedures," and such other procedures as mutually agreed to in writing.

- XII - G
- H. In the event appropriated funds are not available to DOE to carry out the Act or this Agreement, DOE and the State shall close out this Agreement pursuant to Article XV, "Closeout Procedures," and such other procedures as mutually agreed to in writing by the parties.

XIV. CLOSEOUT PROCEDURES

XIII - A

As of the date of receipt of a Notice of Termination pursuant to the article hereof entitled, "Term and Termination," or on the date of expiration of the period of performance or failure of the State or the Government to appropriate funds as provided in the article hereof entitled, "Term and Termination," and except as otherwise directed by the Contracting Officer:

1. The parties shall:
 - a. Stop performance under this Agreement on the date and to the extent specified in the Notice of Termination or on the date when the period of performance expires;
 - b. Place no further orders and make no further subcontracts or other agreements, for materials, services, or property except as may be necessary for completion of such portion of the work under this Agreement as is not terminated by any Notice of Termination;
 - c. Terminate all orders, subcontracts or other agreements entered into in performing this Agreement, to the extent

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that they relate to the performance of work terminated by the Notice of Termination or terminated by the expiration of the period of performance of this agreement.

- d. Settle all outstanding liabilities and all claims arising out of such termination of orders, subcontracts and agreements, the cost of which would be reimbursable, in whole or in part, as an allowable cost in accordance with the provisions of this Agreement;
 - e. In the event of termination of performance in part, complete performance of such part of the work as shall not have been terminated by the Notice of Termination;
 - f. Take such action as may be necessary or as the Contracting Officer may direct for the protection and preservation of the property related to this Agreement which is in the possession of the State and in which the Government has or may acquire an interest.
2. DOE shall, upon written request by the State, make prompt payment to the State pursuant to the article hereof entitled, "Payments and Allowable Costs," for any outstanding allowable costs incurred by the State and not yet paid by DOE as required by this Agreement.
 3. The State shall, upon written request by DOE, make prompt payment to DOE pursuant to the article hereof entitled, "Payments and Allowable Costs," for its outstanding share of allowable costs incurred by DOE and the State in performance of this Agreement.
 4. The State shall transfer title to the millsite and any residual radioactive materials thereupon to the Government and shall transfer title to the Government (to the extent title has not already been transferred) and deliver or otherwise account for and dispose of, in the manner, at the times, and to the extent directed by the Contracting Officer, any other property acquired by the State pursuant to this Agreement.
 5. The State shall immediately refund to DOE any balance of cash advanced to the State that is not authorized by the Contracting Officer to be retained by the State.
 6. The State shall provide to DOE, within ninety days after either the date of expiration of the period of performance or the date of termination of performance, or at such time designated by the Contracting Officer, all financial, performance,

(REVISED)

and other reports required pursuant to this Agreement. The Contracting Officer may grant reasonable extensions when requested by the State. An independent audit may be requested by either party.

7. In the event a final audit has not been performed by DOE prior to closeout of this Agreement, either party shall, until such final audit is performed, retain the right to recover any outstanding share of allowable costs from the other party.

XV. PUBLIC PARTICIPATION AND INFORMATION

- XI
- A. The State Site Representative shall cooperate with the Contracting Officer in formulating and implementing a public participation plan in order to encourage public participation in carrying out the provisions of the Act, this Agreement and the Remedial Action Plan.
- B. Procedures for timely release of information to the public regarding activities by the State and DOE in carrying out this Agreement shall be those established by mutual agreement between the Contracting Officer and the State Site Representative.

XVI. LOCAL ADVISORY COMMITTEES

XIX

DOE shall not be a member of any local advisory committees established in connection with the remedial action to be performed under this Agreement for the purpose of providing information to and receiving information from the citizens of the State and the localities affected by such remedial action. DOE shall, however, make every reasonable effort to interface with any such committee to the extent requested by the State or the committee. No costs associated with any committee so established shall be allowable costs under this Agreement. } ✓

XVII. NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS

X

Recipients of DOE financial assistance awards which are provided under DOE Federal Assistance programs shall comply with the provisions of Part 1040, Chapter X, Title 10 of the Code of Federal Regulations, "Nondiscrimination in Federally Assisted Programs" (10 CFR Part 1040), as published in the Federal Register, Volume 45, No. 116, Friday, June 13, 1980 (pp. 40514-40535). 10 CFR Part 1040 provides that no person shall on the ground of race, color, national origin, sex, handicap, or age be excluded from participation in, be denied the benefits of, be subjected to discrimination under, or be denied employment where the main purpose of the program or activity } ✓

is to provide employment or when the delivery of program services is affected by the State's employment practices, in connection with any program or activity receiving Federal assistance from DOE.

XVIII. NOTICE ADDRESS

Except as otherwise specifically provided herein, any notice, letter, or grievance given or payment made pursuant to the terms of this Agreement shall be sent to the respective party at its address designated below:

STATE:

Commonwealth of Pennsylvania
Department of Environmental Resources
ATTN: Thomas Gerusky, Director
Bureau of Radiation Protection and Toxicology
State Contracting Officer
P.O. Box 2063
Harrisburg, PA 17120

DOE:

Project Manager, Uranium Mill Tailings Remedial Action Project
5301 Central Avenue, NE
Suite 1700
Albuquerque, NM 87108

XIX. CONCURRENCES AND CONSULTATIONS

Whenever in performing this Agreement or in carrying out the Act a concurrence from or consultation with another Government agency is required, DOE shall seek such concurrence and be responsible for undertaking such consultation.

XX. DISPUTES

- A. Except as otherwise provided in this Agreement, any dispute concerning a question of fact arising under this Agreement which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail, or otherwise furnish a copy thereof to the State. The decision of the Contracting Officer shall be final and conclusive unless within 60 days from date of receipt of such copy, the State mails, or delivers a written notice of appeal to the DOE Financial Assistance Appeals Board in accordance with 10 CFR Part 1024 (See Rule 1). The decision of the DOE Financial Assistance Appeals Board shall be final and conclusive unless determined by a court of competent jurisdiction to

have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessary to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this clause the State shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the State and the Government shall proceed diligently with the performance of this Agreement and in accordance with the Contracting Officer's decision.

- XIII - B
- B. This "Disputes Clause" does not preclude consideration of law questions in connection with decisions provided for in paragraph A above; provided, that nothing in this Agreement shall be construed as making final the decision of any administrative official, representative, or board, based on a question of law.

XXI. RULES AND REGULATIONS

VII

All activities under this Agreement shall be carried out pursuant to applicable Federal, State and local regulations, including but not limited to such rules and regulations promulgated or to be promulgated by the Secretary pursuant to Section 109 of the Act.

XXII. OTHER REMEDIES

XX

Nothing in this Agreement shall prevent the Secretary from enforcing any provision of Title I of the Act, any regulation promulgated thereunder, or any provision of this Agreement, by injunction or other equitable remedy, or as otherwise provided by Section 110 of the Act.

XXIII. ENTIRE AGREEMENT

XXI

This written Agreement constitutes the entire agreement of the parties hereto. No representations, promises, terms, conditions, or obligations whatsoever referring to the subject matter hereof, other than those expressly set forth herein, shall be of any binding legal force or effect whatsoever.

XXIV. ORDER OF PRECEDENCE

XXVI

In the event of an inconsistency between provisions of this Agreement, the inconsistency shall be resolved by giving precedence as follows:

- (a) Agreement Articles;

- (b) Remedial Action Plan (when executed);
- (c) Other provisions of this Agreement, whether incorporated by reference or otherwise.

XXV. COVENANT AGAINST CONTINGENT FEES

VIII
The State warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the State for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability or in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

XXVI. OFFICIALS NOT TO BENEFIT

IX
No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

XXVII. STANDARD FORMS

XVII-E
All standard forms required to be submitted by the State pursuant to this Agreement shall be provided to the State by the Contracting Officer upon request.

XXVIII. APPENDICES

NEW
The following appendices are attached to and made a part of this Agreement:

- Appendix A - Site Descriptions & Ownerships;
- Appendix B - General Provisions;
- Appendix C - Depository Sites.

Modification No. A003
Supplemental Agreement to
U.S. Department of Energy
Agreement No. DE-FC04-82AL19487

IN WITNESS WHEREOF, the parties have executed this Supplemental Agreement in
several counterparts.

THE UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

BY: _____
Terrell C. Cone, Jr.
Contracting Officer
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

BY: _____ ✓
Nicholas De Benedictis
Secretary
P.O. Box 2063
Harrisburg, PA 17120

DATE: _____

DATE: _____

STATE APPROVALS:

BY: _____

BY: _____

CONCURRENCE:
NUCLEAR REGULATORY COMMISSION

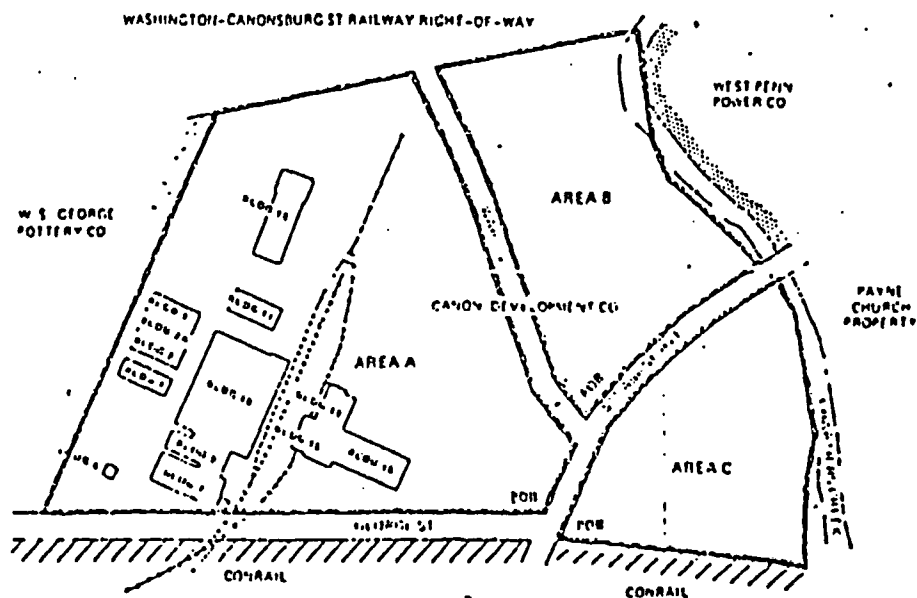
BY: _____

TITLE: _____

DATE: _____

Modification No. A003
Supplemental Agreement to
U.S. Department of Energy
Agreement No. DE-FC04-82AL19487

APPENDIX A
SITE DESCRIPTIONS AND OWNERSHIPS



CONTAINS 21 ACRES MORE OR LESS

Prepared for
United States Department of Energy
SITE DESCRIPTION OF OWNERSHIPS
Inactive Mill Tailings Sites
CANONSHURG, PENNSYLVANIA

161570

BILLING CODE 1430-01-C

Appendix A
Modification NO. A003
Supplemental Agreement
to
U.S. Department of
Energy
Agreement No.
DE-FC04-82AL19487

APPENDIX B

GENERAL PROVISIONS

- A. To the extent that DOE and the State agree in writing pursuant to Article XI, "Procurement," that the State will procure supplies, equipment, construction, or services under this Agreement the following clauses are applicable:

1. Inspection

XXVII-A
DOE through any authorized representative, has the right at all reasonable times, to inspect, or otherwise evaluate the work performed or being performed hereunder the premises in which it is being performed. If any inspection, or evaluation is made by DOE on the premises of the State or a subcontractor, the State shall provide and shall require its subcontractors to provide all reasonable facilities and assistance for the safety and convenience of DOE representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work. ✓

2. Convict-Labor

XXVII-C
In connection with the performance of work under this Agreement, the State agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1965 (18 U.S.C. 4082(c)(2)) and Executive Order 11755, December 29, 1973.

3. Clean Air and Water

a. The State agrees as follows:

- XXVIII-E
(1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by P.L. 91-604 and P.L. 95-95) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et. seq., as amended by P.L. 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this Agreement.

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Agreement No. DE-FC04-82AL19487

- (2) That no portion of the work required by this Agreement will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this Agreement was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.
- (3) To use its best efforts to comply with clean air standards and clean water standards at the facility in which the Agreement is being performed.
- (4) To insert the substance of this clause into any non-exempt contract, including this paragraph 3.a.(4). ✓

b. The terms used in this provision have the following meanings:

- (1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604 and P.L. 95-95).
- (2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S. 1251, et. seq., as amended by P.L. 92-500).
- (3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under Section 111(c) or Section 111(d), respectively, of the Air Act (42 U.S.C. 1857(c)-6(c) or (d)), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).
- (4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).

- (5) The term "compliance" means compliance with clean air or water standards during and after remedial action. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirements of the Air Act or Water and regulations issued pursuant thereto.
- (6) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a participant or subcontractor, to be utilized in the performance of an agreement or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

4. Flood Insurance

XXVII - F

The State will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards. The State will comply with provisions prescribed by the Federal Insurance Administrator in 24 CFR Chapter X, Subchapter B.

5. Permits and Licenses

XXVII - G

Except as otherwise agreed to by the Contracting Officer, the State shall procure all necessary permits or licenses and abide by all applicable laws, regulations and ordinances of the United States and of the State territory, and political subdivision in which the work under this Agreement is performed.

6. Authorization and Consent

XXVII - H

DOE hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent

of the United States in the performance of this Agreement or any part hereof or any amendment hereto or any subcontract hereunder (including all lower-tier subcontracts).

7. Safety and Health

- XXVII - L
- a. The State shall take all reasonable precautions in the performance of the work under this Agreement to protect the health and assure the safety of employees and the public. The State shall comply with all applicable Federal, State, and local health and safety regulations and requirements including but not limited to those established pursuant to the Occupational Safety and Health Act and with any additional safety and health standards and requirements (including reporting requirements) established by DOE which is to include compliance with DOE Order 5481.1, Safety Analysis and Review System.

Upon written instruction from the Contracting Officer, the State shall submit a management program and implementation plan to the Contracting Officer for review and approval.

- b. In the event that the State fails to comply with said regulations and requirements, the Contracting Officer may, without prejudice to any other legal or contractual rights of DOE, issue an order stopping all or any part of the work; thereafter a start order for resumption of work may be issued at the discretion of the Contracting Officer. The State shall make no claim for an extension of time or for an equitable adjustment, compensation or damages by reason of or in connection with such work stoppage.

- B. If DOE procures supplies, equipment, construction or services under this Agreement, each of the following clauses is applicable:

1. Inspection

XXVIII - A

The State through any authorized representative, has the right at all reasonable times, to inspect, or otherwise evaluate the work performed or being performed hereunder in which it is being performed. If any inspection, or evaluation is made by the State on the premises of the DOE, the DOE shall provide and shall require his contractors to provide all reasonable facilities and assistance for the safety and convenience of the State representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work.

✓

2. Clean Air and Water

a. The DOE agrees as follows:

- XXVIII-B
- (1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et. seq., as amended by P.L. 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this Agreement.
 - (2) That no portion of the work required by this Agreement will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this Agreement was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.
 - (3) To use his best efforts to comply with clean air standards and clean water standards at the facility in which the Agreement is being performed.
 - (4) To insert the substance of this clause into any non-exempt contract, including this paragraph 2.d.

b. The terms used in this provision have the following meanings:

- (1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by P.L. 91-604).
- (2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, et. seq., as amended by P.L. 92-500).
- (3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 857c-5(d)), an approved implementation procedure or plan under Section 111(c) or Section 111(d),

respectively, of the Air Act (42 U.S.C. 1857(c)-6(c) or (d)), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).

- (4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).
- (5) The term "compliance" means compliance with clean air or water standards during and after remedial action. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirements of the Air Act or Water and regulations issued pursuant thereto.
- (6) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a participant or subcontractor, to be utilized in the performance of an agreement or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

3. Permits and Licenses

XXVIII-C
Except as otherwise agreed to by the State Contracting Officer, the DOE or its contractors shall procure all necessary permits or licenses and abide by all applicable laws, regulations and ordinances of the United States and of the State territory, and political subdivision and which the work under this Agreement is performed.

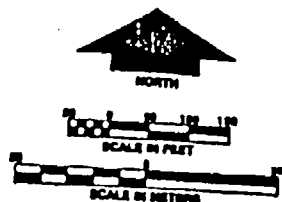
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U.S. Department of Energy
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4. Safety and Health

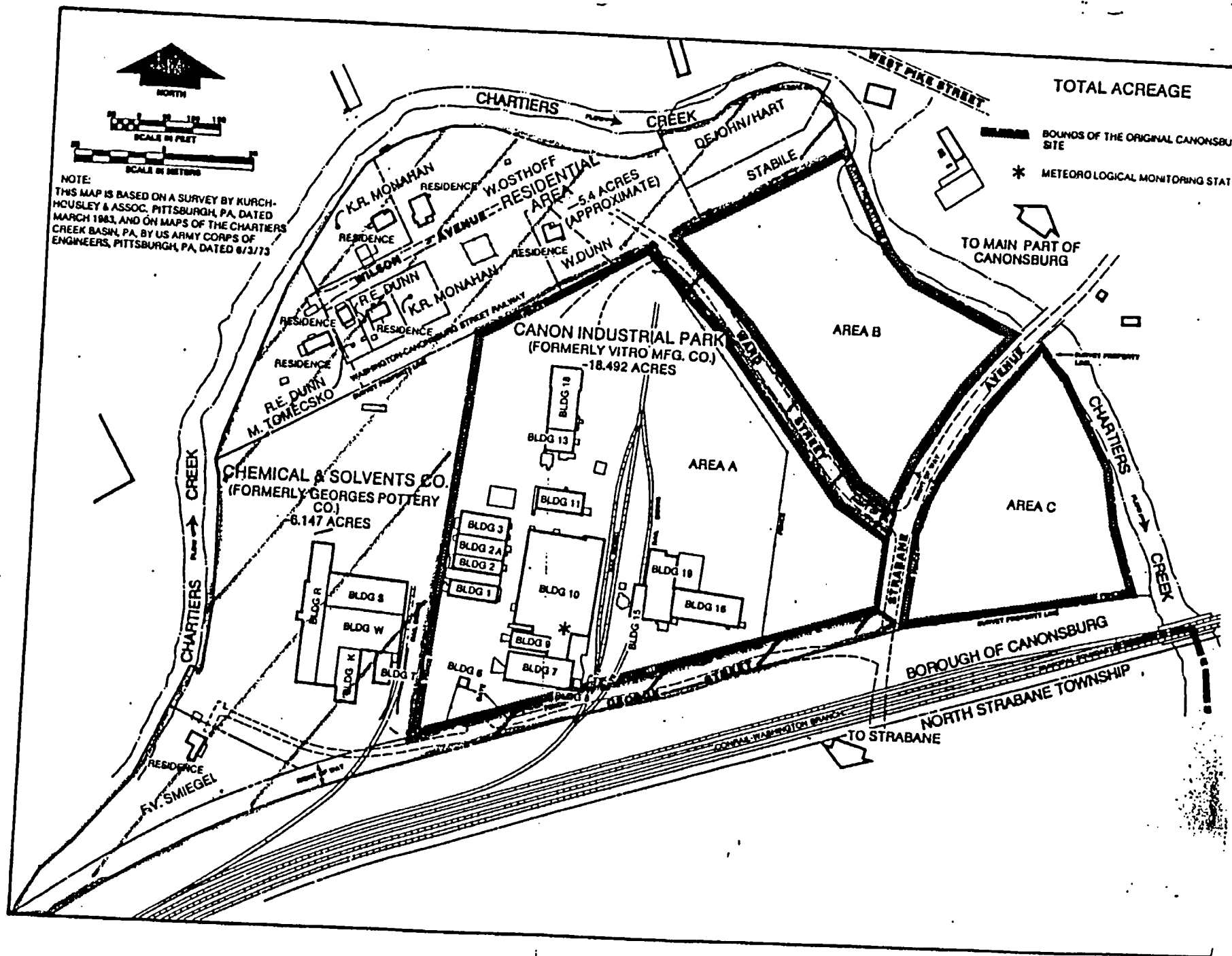
XXVIII-D
The DOE shall take all reasonable precautions in the performance of the work under this Agreement to protect the health and assure the safety of employees and the public. The DOE shall comply with all applicable Federal, State, and local health and safety regulations and requirements including but not limited to those established pursuant to the Occupational Safety and Health Act and with any additional safety and health standards and requirements (including reporting requirements) established by DOE. X ✓

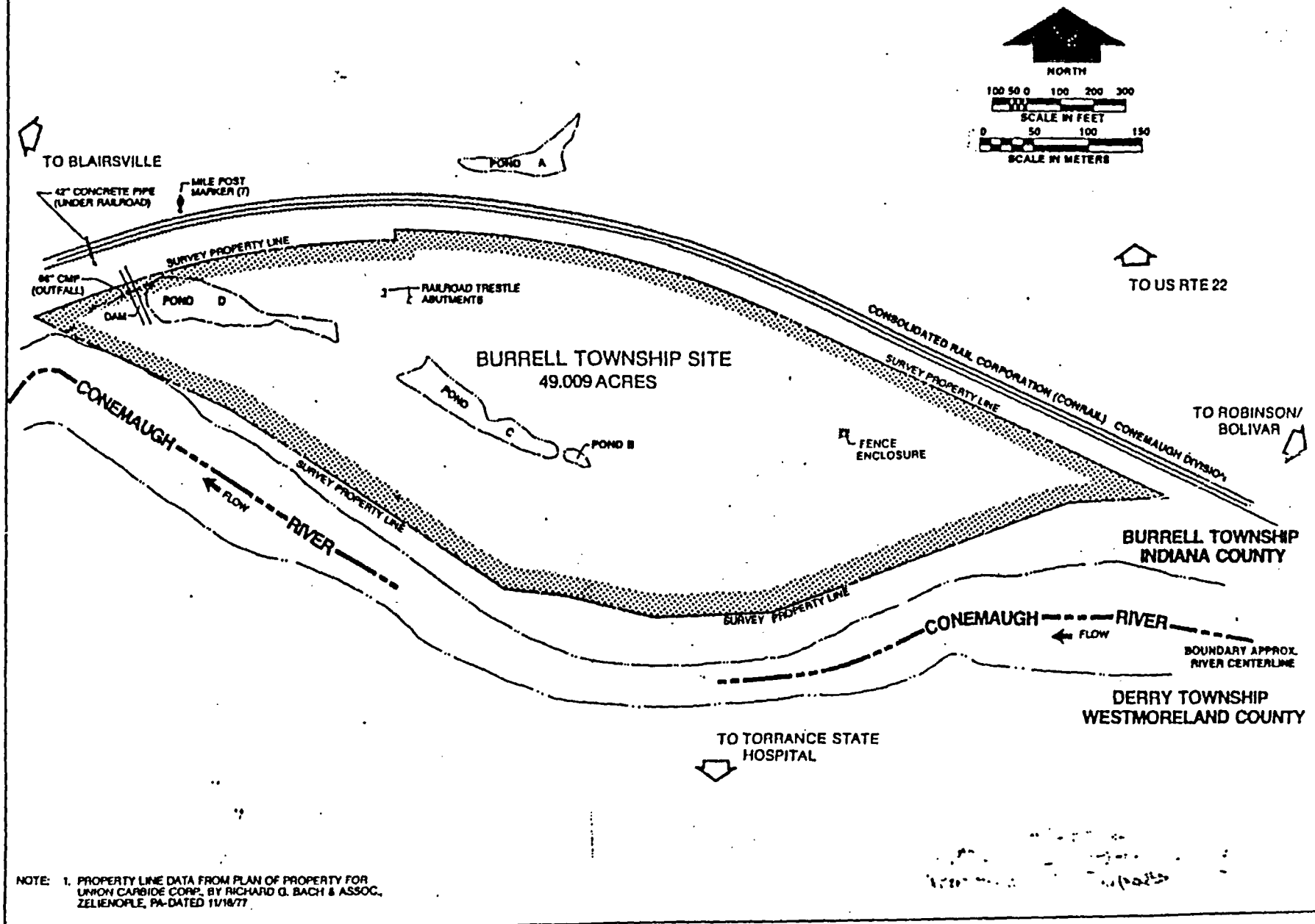
Appendix C to
Modification No. A003
Supplemental Agreement to
U. S. Department of Energy
Agreement No. DE-FC04-82AL19487

APPENDIX C
DEPOSITORY SITES



NOTE:
THIS MAP IS BASED ON A SURVEY BY KURCH-
HOUSLEY & ASSOC. PITTSBURGH, PA. DATED
MARCH 1983, AND ON MAPS OF THE CHARTIERS
CREEK BASIN, PA. BY US ARMY CORPS OF
ENGINEERS, PITTSBURGH, PA. DATED 8/3/73





NOTE: 1. PROPERTY LINE DATA FROM PLAN OF PROPERTY FOR UNION CARBIDE CORP. BY RICHARD G. BACH & ASSOC. ZELIENOPLE, PA-DATED 11/18/77.

MODIFICATION OF COOPERATIVE AGREEMENT

Page 1 of 4

- | | |
|--|--|
| 1. Modification No. A004 | 2. Effective Date: |
| <hr/> | |
| 3. Purchase Request No. 04-85AL19487.500 | 4. Cooperative Agreement No. DE-FC04-82AL19487 |
| <hr/> | |
| 5. Issued By: Department of Energy Albuquerque Operations Office Contracts and Procurement Division P.O. Box 5400 Albuquerque, NM 87115 | 6. State: Commonwealth of Pennsylvania Department of Environmental Resources P. O. Box 2063 Harrisburg, PA 17120 |

7. Accounting and Appropriation Data (If Required):

| <u>B&R No.</u> | <u>Approp. Sym.</u> | <u>Allot. Sym.</u> | <u>Object Class</u> |
|--------------------|---------------------|--------------------|---------------------|
| AH-10-15 | 89X0224 | 89X0224 | 721 |

| | |
|--|-------------|
| Increase to DOE Funds Obligated: | \$ 27,000 |
| Total DOE Funds Obligated: | \$1,755,367 |
| Increase in Funds Obligated by Commonwealth of Pennsylvania: | \$1,102,000 |
| Total Funds Obligated by Commonwealth of Pennsylvania: | \$2,410,291 |

- 8.) () The above numbered Cooperative Agreement is modified to reflect the administrative changes set forth in block 9.
- (X) This agreement is entered into pursuant to authority of Uranium Mill Tailings Radiation Control Act of 1978, P.L. 95-604. It modifies the above numbered Cooperative Agreement as set forth in block 9.

9. Description of Modification:

See continuation pages.

Except as provided herein, all terms and conditions of the document referenced in block 4, as heretofore changed, remain unchanged and in full force and effect.

10. () State/Indian Tribe is not required to sign this document.
(X) State is required to sign this document and return 3 copies to issuing office.

11. Execution of and concurrence with the Modification:

See page 4 of this Modification.

I. The purposes of this modification are to:

- A. Amend Article VI, Cost Limitation and Obligation of Funds, to provide estimates of allowable costs to be incurred by DOE and the Commonwealth of Pennsylvania during the period from October 1, 1984 through September 30, 1985, and to obligate DOE and State funds accordingly; and
- B. To amend the Remedial Action Plan for the millsite.

II. The following modifications to the Cooperative Agreement are hereby affected.

- A. Paragraph B. of Article VI, Cost Limitation and Obligation of Funds, is revised by adding the following new subparagraph 3.
 - "3. For Cost Estimate Period Number 3, the estimated allowable costs to be incurred are as follows-
 - a. October 1, 1984 through September 30, 1985:
 - (1) State - Thirty Thousand Dollars (\$30,000)
 - (2) DOE - Ten Million, Nine Hundred and Ninety Thousand Dollars (\$10,990,000)
 - (3) Total - Eleven Million, Twenty Thousand Dollars (\$11,020,000)"
- B. Subparagraphs 3., 4. and 5. of Paragraph B under Article VI are redesignated as subparagraphs 4., 5., and 6. and revised to read as follows:
 - "4. The total of the estimated allowable costs that will be incurred by the State from the effective date of this Agreement through the latest Cost Estimate Period shown above is \$1,950,408.
 - 5. The total of the estimated allowable costs that will be incurred by DOE from the effective date of this Agreement through the latest Cost Estimate Period shown above is \$22,152,506.
 - 6. The total of the estimated allowable costs that will be incurred by both DOE and the State from the effective date of this Agreement through the latest Cost Estimate Period shown above is \$24,102,914 (hereinafter referred to as the Total Cost Limitation)."

C. Paragraphs D. and C. under Article VI are revised to read as follows:

"D. The State, for the Cost Estimate Period, has obligated funds in the amount of \$2,410,291, for payment of its share of allowable costs under this Agreement. The State shall not be liable in an amount in excess of the funds it has obligated herein; however, DOE shall not be required to continue performance of this Agreement beyond such time as the Total Cost Limitation exceeds an amount 10 times the amount of the funds obligated by the State. Prior to each Government fiscal year or from time to time during the performance of this Agreement, as necessary, the State shall increase the amount of funds obligated by written notice to the Contracting Officer specifying the amount of such increase. Upon such written notice DOE and the State shall execute a modification to this Agreement which reflects the increased obligation of funds by the State. In the event the State fails to obligate funds at a level necessary to ensure payment of its share of the Total Cost Limitation, DOE may elect to treat such failure as a termination by the State pursuant to the article of this Agreement entitled 'Term and Termination.'

E. DOE, for the Cost Estimate Period: (1) has obligated funds in the amount of \$1,755,367 for payment to the State for DOE's share of allowable costs which the State incurs under this Agreement; and (2) will obligate funds in an amount sufficient to pay to DOE contractors and subcontractors DOE's share of those allowable costs which DOE incurs under this Agreement. DOE shall not be liable to the State in an amount in excess of the funds it has obligated herein for payment to the State; however, the State shall not be required to continue performance of this Agreement beyond such time as such amount obligated by DOE is less than 90% of the amount shown in paragraph B.3. of this article. Prior to each Government fiscal year or from time to time under this Agreement, as necessary, DOE shall increase the amount of funds obligated by unilateral modification to this Agreement which reflects the increased obligation of funds by DOE. In the event DOE fails to obligate funds at a level necessary to ensure payment of its share of the total allowable costs to be incurred by the State, the State may elect to treat such failure as a termination by the State pursuant to the article of this Agreement entitled 'Term and Termination.'

III. The Remedial Action Plan for the millsite is modified by revising Section 5.6, Cost Estimate, in its entirety by deleting pages 23 through 25 of the Remedial Action Plan and replacing them with new pages 23 through 25 attached hereto as Attachment 1 and incorporated herein by this reference.

IV. The parties have executed this Modification in several counterparts and NRC has concurred therewith.

COMMONWEALTH OF PENNSYLVANIA

UNITED STATES OF AMERICA

By: _____
Name: _____
Title: _____
Date: _____

By: _____
Name: Theetis V. Hill
Title: Contracting Officer
Contracts and Industrial
Relations Division
Date: _____

CONCURRENCE:

NUCLEAR REGULATORY COMMISSION

By: _____
Name: _____
Title: _____
Date: _____

Attachment No. 1

Modification No. A004 to
Cooperative Agreement No.
DE-FC04-82AL18487

The original designated site has been acquired for the DOE by the Commonwealth of Pennsylvania. The Corps of Engineers will assist the DOE with the acquisition of adjacent properties between Chartiers Creek and the railroad and with easements and rights-of-way on the entire site. This acquisition and the subsequent relocation of residents and commercial firms must be completed prior to the initiation of major demolition and encapsulation construction activities.

Work during the first winter (October-March) will include site preparation and the construction of some of the safety features with a minimum of earth disturbance. Construction of the encapsulation cell will be initiated in the Spring of 1984. The excavation and encapsulation will be started about June, and should be essentially completed by October 1984, barring any delay problems. Site restoration is scheduled to be completed in 1985.

If the remedial action is completed at the site on schedule, the Canonsburg vicinity property remedial actions may not yet be complete. In this event, space will be left on the site for the remaining contaminated materials and the last phase of the vicinity property program will be the final restoration of the site following stabilization of these materials.

5.6 COST ESTIMATE

A cost estimate has been prepared, based upon the conceptual design described in this Remedial Action Plan. The conceptual design cost estimate is \$17.13 million and is summarized on Table 5.1. This represents the preliminary cost estimate for cost-sharing purposes. Table 5.2 presents a time-phased distribution of the project costs, consistent with the schedule described above. In addition to these costs, costs will be incurred for remedial action at the Burrell Township site and at vicinity properties.

Table 5.1 Site cost estimate summary (Escalated - \$000)

| Item | Costs | |
|--|--------------|----------|
| <u>Site Acquisition</u> | | |
| Mineral value | \$ -0- | |
| Land value | <u>3,660</u> | |
| Total | \$3,660 | |
| <u>Remedial Action (RA)</u> | | |
| Processing site | | |
| Site preparation | \$ 1,121 | |
| Liner | 1,682 | |
| Site grading | 1,233 | |
| Cover | 3,364 | |
| Floor protection | 336 | |
| Decontamination facilities | 561 | |
| Restoration | 1,121 | |
| Fencing | 112 | |
| Supervisory & field services | <u>1,682</u> | |
| Total | \$11,212 | |
| <u>Engineering/construction management</u> | | |
| Processing site | | |
| Engineering (ENG) | \$ 728 | |
| Construction management (CM) | <u>1,530</u> | |
| Total | \$2,258 | |
| TOTAL | | \$17,130 |

Table 5.2 Expenditure schedule* (Escalated - \$000)

| Year | Cost | | |
|---------------------------------------|---------|-------|----------|
| FY 1982 | | | |
| Site acquisition | \$668 | | |
| | | Total | \$668 |
| FY 1983 | | | |
| Site acquisition | \$ 919 | | |
| Engineering | 728 | | |
| | | Total | \$1,647 |
| FY 1984 | | | |
| Site acquisition | \$2,053 | | |
| Stage I construction | 3,888 | | |
| Engineering & construction management | 554 | | |
| | | Total | \$6,495 |
| FY 1985 | | | |
| Site acquisition | \$ -0- | | |
| Stage II construction | 7,055 | | |
| Engineering & construction management | 1,245 | | |
| | | Total | \$8,300 |
| | | TOTAL | \$17,130 |

* This projected expenditure schedule is for the Canonsburg site only and excludes the Burrell Township site and other vicinity properties.

Agreement

AN AGREEMENT
BETWEEN
THE UNITED STATES NUCLEAR REGULATORY COMMISSION
AND
THE COMMONWEALTH OF PENNSYLVANIA
FOR THE
DISCONTINUANCE OF CERTAIN COMMISSION REGULATORY AUTHORITY
AND
RESPONSIBILITY WITHIN THE COMMONWEALTH PURSUANT TO
SECTION 274 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

WHEREAS, The United States Nuclear Regulatory Commission (the Commission) is authorized under Section 274 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2011 *et seq.*, (the Act), to enter into agreements with the Governor of any State/Commonwealth providing for discontinuance of the regulatory authority of the Commission within the Commonwealth under Chapters 6, 7, and 8, and Section 161 of the Act with respect to byproduct materials as defined in Sections 11e.(1), (3) and (4) of the Act, source materials, and special nuclear materials in quantities not sufficient to form a critical mass; and,

WHEREAS, The Governor of the Commonwealth of Pennsylvania is authorized under the Pennsylvania Radiation Protection Act, Act of July 10, 1984, P.L. 688, No. 147, *as amended*, 35 P.S. § 7110.101 *et seq.*, to enter into this Agreement with the Commission; and,

WHEREAS, The Governor of the Commonwealth of Pennsylvania certified on [date], that the Commonwealth of Pennsylvania (the Commonwealth) has a program for the control of radiation hazards adequate to protect public health and safety with respect to the materials within the Commonwealth covered by this Agreement, and that the Commonwealth desires to assume regulatory responsibility for such materials; and,

WHEREAS, The Commission found on [date] that the program of the Commonwealth for the regulation of the materials covered by this Agreement is compatible with the Commission's program for the regulation of such materials and is adequate to protect public health and safety; and,

WHEREAS, The Commonwealth and the Commission recognize the desirability and importance of cooperation between the Commission and the Commonwealth in the formulation of standards for protection against hazards of radiation and in assuring that Commonwealth and Commission programs for protection against hazards of radiation will be coordinated and compatible; and,

WHEREAS, The Commission and the Commonwealth recognize the desirability of the reciprocal recognition of licenses, and of the granting of limited exemptions from licensing of those materials subject to this Agreement; and,

WHEREAS, This Agreement is entered into pursuant to the applicable provisions of the Act ;

NOW, THEREFORE, It is hereby agreed between the Commission and the Governor of the Commonwealth acting on behalf of the Commonwealth as follows:

ARTICLE I

A. Subject to the exceptions provided in Articles II, IV, and V, the Commission shall discontinue, as of the effective date of this Agreement, the regulatory authority of the Commission in the Commonwealth under Chapters 6, 7, and 8, and Section 161 of the Act with respect to the following materials:

1. Byproduct materials as defined in Section 11e.(1) of the Act;
2. Byproduct materials as defined in Section 11e.(3) of the Act;
3. Byproduct materials as defined in Section 11e.(4) of the Act;
4. Source materials;
5. Special nuclear materials in quantities not sufficient to form a critical mass.

B. Subject to the exceptions provided in Articles II, IV, and V, the Commission shall discontinue, as of the effective date of this Agreement, the regulatory authority of the Commission in the Commonwealth with respect to the regulation of the land disposal of all waste byproduct, source and special nuclear materials covered by this Agreement;

ARTICLE II

A. This Agreement does not provide for discontinuance of any authority and the Commission shall retain authority and responsibility with respect to:

1. The regulation of the construction and operation of any production or utilization facility or any uranium enrichment facility;
2. The regulation of the export from or import into the United States of byproduct, source, or special nuclear material, or of any production or utilization facility;
3. The regulation of the disposal into the ocean or sea of byproduct, source, or special nuclear materials waste as defined in the regulations or orders of the Commission;
4. The regulation of the disposal of such other byproduct, source, or special nuclear materials waste as the Commission from time to time determines by regulation or order should, because of the hazards or potential hazards thereof, not be disposed without a license from the Commission;

5. The evaluation of radiation safety information on sealed sources or devices containing byproduct, source, or special nuclear materials and the registration of the sealed sources or devices for distribution, as provided for in regulations or orders of the Commission.
6. The regulation of federal government agencies and facilities.

ARTICLE III

With the exception of those activities identified in Article II.A.1 through 4, this Agreement may be amended, upon application by the Commonwealth and approval by the Commission, to include one or more of the additional activities specified in Article II, whereby the Commonwealth may then exert regulatory authority and responsibility with respect to those activities.

ARTICLE IV

Notwithstanding this Agreement, the Commission may from time to time by rule, regulation, or order, require that the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing source, byproduct, or special nuclear material shall not transfer possession or control of such product except pursuant to a license or an exemption from licensing issued by the Commission.

ARTICLE V

This Agreement shall not affect the authority of the Commission under Subsection 161b or 161i of the Act to issue rules, regulations, or orders to protect the common defense and security, to protect restricted data, or to guard against the loss or diversion of special nuclear material.

ARTICLE VI

The Commission will cooperate with the Commonwealth and other Agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that Commission and Commonwealth programs for protection against hazards of radiation will be coordinated and compatible. The Commonwealth agrees to cooperate with the Commission and other Agreement States in the formulation of standards and regulatory programs of the Commonwealth and the Commission for protection against hazards of radiation and to assure that the Commonwealth's program will continue to be compatible with the program of the Commission for the regulation of materials covered by this Agreement.

The Commonwealth and the Commission agree to keep each other informed of proposed changes in their respective rules and regulations, and to provide each other the opportunity for early and substantive contribution to the proposed changes.

The Commonwealth and the Commission agree to keep each other informed of events, accidents, and licensee performance that may have generic implication or otherwise be of regulatory interest.

ARTICLE VII

The Commission and the Commonwealth agree that it is desirable to provide reciprocal recognition of licenses for the materials listed in Article I licensed by the other party or by any other Agreement State. Accordingly, the Commission and the Commonwealth agree to develop appropriate rules, regulations, and procedures by which such reciprocity will be accorded.

ARTICLE VIII

The Commission, upon its own initiative after reasonable notice and opportunity for hearing to the Commonwealth, or upon request of the Governor of the Commonwealth, may terminate or suspend all or part of this agreement and reassert the licensing and regulatory authority vested in it under the Act if the Commission finds that (1) such termination or suspension is required to protect public health and safety, or (2) the Commonwealth has not complied with one or more of the requirements of Section 274 of the Act. The Commission may also, pursuant to Section 274j of the Act, temporarily suspend all or part of this agreement if, in the judgment of the Commission, an emergency situation exists requiring immediate action to protect public health and safety and the Commonwealth has failed to take necessary steps. The Commission shall periodically review actions taken by the Commonwealth under this Agreement to ensure compliance with Section 274 of the Act which requires a Commonwealth program to be adequate to protect public health and safety with respect to the materials covered by this Agreement and to be compatible with the Commission's program.

ARTICLE IX

This Agreement shall become effective on [date], and shall remain in effect unless and until such time as it is terminated pursuant to Article VIII.

Done at [City, State] this [date] day of [month], [year].

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

_____, Chairman

FOR THE COMMONWEALTH OF PENNSYLVANIA

_____, Governor

Regulation Development Guides

**THE
REGULATORY
REVIEW
PROCESS
IN
PENNSYLVANIA**



PREPARED BY:

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FEBRUARY 2003**

Mission Statement

To promote the most effective and least intrusive regulations possible while maintaining independence and full compliance with the Regulatory Review Act.

This booklet is published by the Independent Regulatory Review Commission and is available on our website at www.irrc.state.pa.us. Please feel free to copy or distribute all or parts of this publication.

Preface

The General Assembly passed the Regulatory Review Act (RRA) in 1982. The RRA established the Independent Regulatory Review Commission (Commission or IRRC). The Commission first met and began operations in 1983. There have been several amendments to the RRA over the years. The most recent changes were enacted as Act 148 of 2002 (a summary of these changes can be found in Appendix A on page 20).

Two primary goals of the Commission as stated in Section 2(a) of the RRA are:

- "...to assist the Governor, the Attorney General and the General Assembly in their supervisory and oversight functions"; and
- "...to encourage the resolution of objections to a regulation and the reaching of a consensus among the commission, the standing committees, interested parties and the agency."

The RRA accomplishes these goals through a two-stage review process:

First, an agency publishes a proposed regulation in the Pennsylvania Bulletin for review and comment by the public, the General Assembly and this Commission. The agency reviews the comments and develops a final version, with or without revisions.

Second, the agency gives commentators, the General Assembly and this Commission an opportunity to review the final regulation before publishing it as a final rule with the full force and effect of law.

As a result of this two-stage process, all final regulations reviewed by the Commission were ultimately approved under the RRA since 1998. Clearly, the review process works.

The second crucial factor in this success is our five Commissioners. The four caucus leaders of the Senate and House of Representatives each appoint one Commissioner. They serve three-year terms and can be reappointed. The Governor appoints the fifth Commissioner, who serves at the Governor's pleasure.

The Commission is charged with reviewing all regulations that Commonwealth agencies propose for promulgation except those of the Pennsylvania Game Commission and Pennsylvania Fish and Boat Commission. The regulatory review criteria set forth in the RRA include two primary considerations: whether the promulgating agency has the statutory authority to enact the regulation; and whether the regulation is consistent with legislative intent. The Commission then considers a list of other criteria such as economic impact, public health and safety, reasonableness, and clarity.

This booklet is devoted to discussion of the RRA, related laws, and how the Commission and others involved in the review process conduct their business. It provides a discussion of each step in the regulation review process. For each step, there is also a corresponding flow chart. In addition, a master flow chart displaying the entire process is located on the middle pages of this booklet. If you remove it, you can follow the process on the chart as you read the booklet. The numbers, inside the boxes of the individual flow charts, correspond to the numbers on the master flow chart. The blue numbers, embedded in the text of this booklet, correspond to the box numbers of all the charts. The page numbers in the boxes of the master flow chart correspond to the page number of the descriptive text for that step in the process within the booklet.

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THE PROMULGATION OF REGULATIONS

Commonwealth agencies have the authority, discretion and responsibility to promulgate regulations. An agency may have to:

1. Add, amend or repeal a regulation to implement legislation;
2. Ensure that existing regulations do not conflict with a recently enacted or amended federal or state regulation or statute;
3. Comply with a decision of a state or federal court; or
4. Clarify an existing regulation.

The catalyst for change does not always have to be external, however. An agency has wide discretion in determining the need to update an existing regulatory scheme in order to improve the way it operates under its enabling legislation.

Agencies sometimes provide a draft of a regulation prior to its publication in the *Pennsylvania Bulletin* to citizen advisory panels or other interest groups. Some agencies are required by statute to take this step; others do so voluntarily. Typically, the agency will invite interested parties and stakeholder groups to review and comment on the proposal before it is published.

Pennsylvania has four statutes that simultaneously govern the regulatory review process. They are the:

1. Commonwealth Documents Law (CDL) (45 PS §§ 1201 – 1208), which prescribes procedural steps in the preparation of a regulation;
2. Administrative Code (71 P.S. § 232), which requires the Office of Budget to prepare a fiscal note for proposed regulations;
3. Commonwealth Attorneys Act (71 PS §§ 732-101 – 732-506), which provides for review and approval for form and legality by the Offices of General Counsel and Attorney General; and
4. Regulatory Review Act (RRA) (71 PS §§ 745.1 – 745.15), which provides for oversight and review by the Commission and the General Assembly.

Most of this booklet is dedicated to explaining the two-stage review process of the RRA. The two stages include a review and comment period for proposed versions of regulations, and a period for review and action on the final version of regulations. Both stages are addressed in detail starting on page 4 of this booklet.

COMMONWEALTH DOCUMENTS LAW

The Commonwealth Documents Law (CDL), enacted in 1968, establishes the basic framework for the rulemaking process. It lists the steps through which a proposed regulation must proceed before it may be finally adopted.

The CDL requires an agency to publish notice of its intention to promulgate, repeal or amend a regulation in the *Pennsylvania Bulletin*. This notice must include:

1. The text of the proposed regulation, indicating changes in the language of the existing regulation;
2. The agency's statutory authority to propose the regulation; and
3. A request for comments.

As a result of input received during the proposed stage, the agency may modify the text of the final-form regulation.

Modifications may not enlarge the scope of the regulation as proposed. However, Pennsylvania's courts have interpreted the phrase "enlarge the scope" very broadly. Generally, the courts have found that the scope has not been enlarged as long as the final-form regulation deals with the same subject matter as the proposed. This is true even if the methodologies and requirements set forth in the regulation have been drastically revised from proposed to final-form.

ADMINISTRATIVE CODE – FISCAL NOTES

A section of the Administrative Code entitled "Fiscal notes" directs the Office of Budget to prepare a fiscal note for regulatory actions of the administrative departments, boards, commissions or authorities, receiving money from the State Treasury. The fiscal note must state the costs of the proposed action for programs of the Commonwealth or local governments. The fiscal note is published in the *Pennsylvania Bulletin* at the same time as the proposal.

The fiscal note is required to contain the following information:

1. The fund or appropriation source providing the expenditures for the proposal;
2. The probable cost of implementing the proposal in its first fiscal year, and a projected cost estimate for each of next five fiscal years;
3. The fiscal history of the program expenditures;
4. The probable loss of revenue for the fiscal year of its implementation, and the projected loss of revenue for each of the next five fiscal years; and
5. The recommendation, if any, of the Secretary of the Budget.

COMMONWEALTH ATTORNEYS ACT

The Commonwealth Attorneys Act provides for the review of a regulation as to form and legality. Before publication in the *Pennsylvania Bulletin*, a regulation must pass legal muster. The Offices of General Counsel and Attorney General both perform this function, but do so independently of each other. They both review regulations first as proposed, and then again in final-form.

Proposed and final-form regulations can be prepared by an executive or independent agency¹. They are initially reviewed for form and legality by the agency's legal office. Independent agencies submit their regulations directly to the Attorney General. Executive agencies must have the General Counsel's approval before submitting their regulations to the Attorney General.

General Counsel Review

The General Counsel is responsible for advising the Governor and providing legal services to executive agencies. Therefore, the General Counsel may question every aspect of an executive agency's proposed or final-form regulation, either as a matter of policy or as a matter of law. A regulation is reviewed to determine if:

1. It is clearly drafted;
2. The preamble satisfactorily explains the purpose of, need for, and statutory basis of the regulation; and
3. The Regulatory Analysis Form is completed correctly.

There are no time restrictions on the General Counsel's review.

Attorney General Review

The Attorney General reviews all proposed regulations from executive and independent agencies. This review must be completed in 30 days. If the Attorney General takes no action within 30 days, the regulation is deemed approved. Upon approval, the regulation proceeds through the remaining channels of review, pursuant to the RRA.

During the 30-day period, the Attorney General must convey any legal concerns related to the regulation to the General Counsel or the independent agency counsel. Once legal issues are raised, the time for Attorney General review is put on hold or "tolled." During this hiatus, the agency is expected to cooperate with the Attorney General to reach a consensus or resolution. Independent agencies usually respond directly to the Attorney General. Executive agencies generally work through the Office of General Counsel in preparing a response.

There are two separate points in the process where the Attorney General reviews the regulation. The Attorney General reviews proposed regulations before the regulatory review process begins under the RRA. At the final-form stage, this sequence is reversed. The Attorney General's review takes place following final action by the Commission. This is because only the Attorney General may direct an agency to make changes in a final-form regulation approved under the RRA. The Commission cannot direct an agency to make changes.

If the issues raised are not resolved, the Attorney General may disapprove the regulation. Upon disapproval, the Attorney General must notify the General Counsel or independent agency, the Secretary of the Senate and the Chief Clerk of the House of Representatives of the reasons for the disapproval. A disapproved regulation may be published with or without revisions. However, if the

¹An independent agency is generally governed by a board or commission not under the direction of the Governor. An executive agency is headed by a cabinet officer or other official appointed by the Governor.

agency chooses to publish the regulation without revisions, it must also publish the Attorney General's objections.

REGULATORY REVIEW ACT

The RRA was enacted in 1982 to address a concern by the legislature regarding the promulgation of regulations. The intent of the RRA is clearly defined in Section 2(a) of the RRA. It can be summarized in the following five points:

1. Establish a method for ongoing and effective legislative review and oversight to foster executive branch accountability;
2. Provide for primary review by a commission with sufficient authority, expertise, independence and time to perform that function;
3. Provide ultimate review of regulations by the General Assembly;
4. Assist the Governor, Attorney General and General Assembly in their supervisory and oversight functions; and
5. Encourage the resolution of objections to a regulation and the reaching of a consensus among the agency, the Committees, interested parties and the Commission. (Text of Section 2(a) is provided in **Appendix C** on **page 22.**)

Based upon the requirements of the RRA, the agency, the Committees of the Senate and House of Representatives and the Commission share a common interest - to create the most effective, clear, reasonable, and least restrictive regulations possible. The two top criteria used to evaluate every regulation are **legislative intent** and **statutory authority**. Once the Commission makes a finding that a regulation satisfies these two criteria, it must apply the remaining six criteria to determine if a regulation is "in the public interest." The **review criteria** can be found in **Appendix D** on **page 23** of this booklet.

The RRA applies to every department, departmental administrative board or commission, independent board or commission, agency or other authority of this Commonwealth but does not include the Senate or the House of Representatives, the Pennsylvania Fish and Boat Commission, the Pennsylvania Game Commission or any court, political subdivision, municipal or local authority.

The promulgating agency has broad discretion to determine the scope of a regulation and when to introduce a regulation into the process. However, once a regulation is in the process, it is subject to the specific timelines described in this booklet. The RRA is the only act that guides the legislative oversight process for regulations. Although the other acts described earlier in this booklet affect the process, it is the RRA that actually controls the time line for review and promulgation of a regulation.

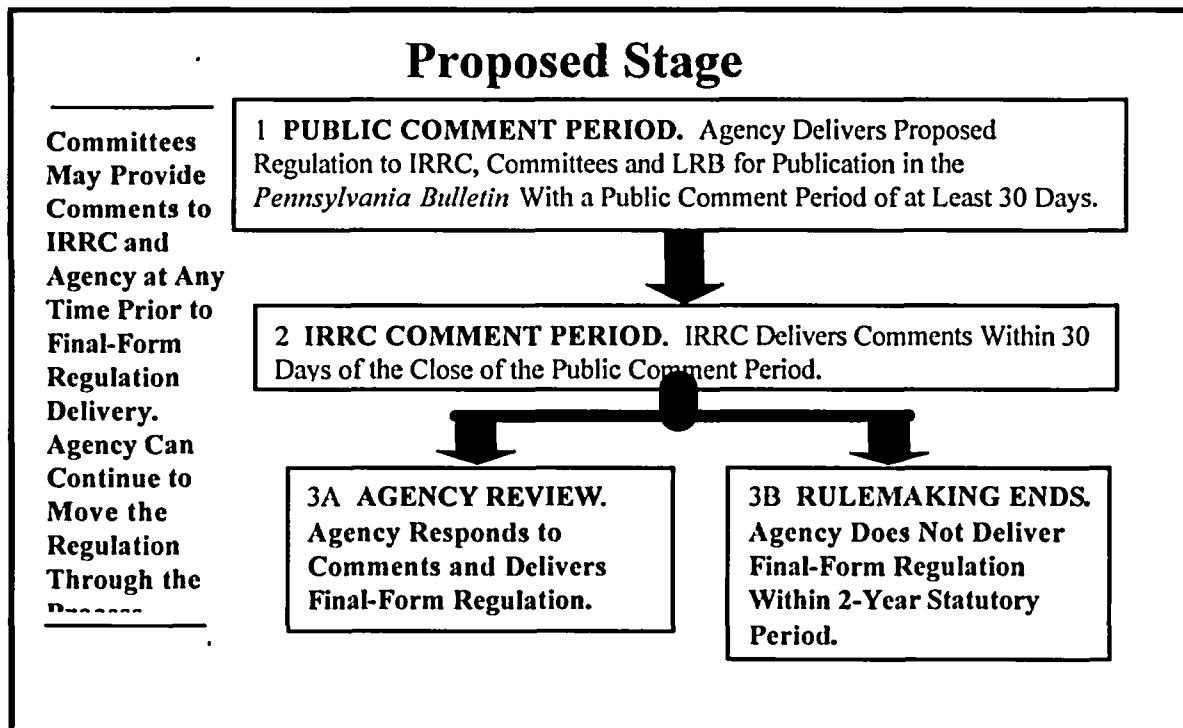
THE PROPOSED STAGE

Review of proposed regulations, under the RRA, begins after the Attorney General's approval. As the chart on **page 5** indicates, the agency delivers its proposed regulation, to the

Committees,² Legislative Reference Bureau (LRB) and Commission **on the same day (1)**. A preamble and Regulatory Analysis Form (RAF) must accompany the regulation.

The LRB publishes the regulation, including the preamble, in the *Pennsylvania Bulletin*. The preamble contains the deadline for submittal of comments by the public. **Public comment periods** are generally 30 days. However, they may be shorter if exigent circumstances exist, or longer, when required. Agencies may also schedule public hearings or information sessions to explain the regulation and promote dialogue.

The RAF is not published in the *Pennsylvania Bulletin*. However, it is available for inspection and copying at the agency or Commission. The information contained in the RAF can be found in **APPENDIX B** on **page 21** of this booklet.



Public Comment Period

Anyone may submit comments to the agency during the public comment period. The RRA requires the agency to forward copies of all comments it receives to the Committees and Commission within five business days of receipt. In addition, within five business days of receipt, the agency must notify all commentators of the procedure for requesting additional information on the final-form regulation, including notice of when the final-form regulation is delivered to the Committees and Commission for a final review.

² The Senate and House Committees designated by the Senate President Pro Tempore and the House Speaker to review the regulations of state agencies (see Appendix E, Glossary, on page 24).

Individuals, businesses and professionals affected by regulations should review proposed regulations and carefully consider the need to submit comments. Concerned citizens and experts in related fields may also want to submit comments supporting proposed regulations or offering suggestions for improvement. Written comments may contain useful information that agency staff can use to refine regulations to implement better and more efficient methods for attaining their policy objectives.

Persons interested in a regulation are encouraged to file comments with both the Commission and the agency. During its review, the Commission conducts independent outreach to solicit input from groups and individuals that might be impacted by a proposed regulation. If the Commission receives comments that haven't been submitted to the agency, the Commission will provide the agency with a copy. Comments can be sent to the Commission by mail, by facsimile to 717-783-2664 or by e-mail to irrc@irrc.state.pa.us. **All comments received are made part of the Commission's public record file.** This file is available for public review at the Commission's office during normal working hours.

Opportunity for Committee Review

Committees may submit comments, recommendations and objections to the agency and the Commission at any time prior to the submittal of the regulation in final-form. The comments, recommendations and objections may refer to any of the criteria established by Section 5.2 of the RRA, which are listed in **APPENDIX D** on page 23. Filing comments is optional for the Committees. Unlike the Commission, the Committees do not forfeit their ability to disapprove a final-form regulation by failing to comment on the proposed regulation.

Commission Review and Timeline for Comments

The Commission must submit its comments, recommendations and objections within 30 days of the close of the public comment period **(2)**. Commission comments, recommendations and objections are also based on the criteria contained in Section 5.2 of the RRA.

The Commission must first and foremost determine whether the agency has the statutory authority to promulgate the regulation and whether the regulation conforms to the intent of the General Assembly.

To determine whether a regulation meets statutory authority and legislative intent, the Commission examines:

1. Language used in the authorizing statute;
2. Comments of the Committees and Members of the General Assembly;
3. Comments in the Legislative Journal;
4. Pertinent legal precedents; and

5. Attorney General Opinions.

Following a determination that the regulation meets the statutory authority and legislative intent, the Commission considers the remaining criteria that include:

- Economic or fiscal impact;
- Protection of the public health, safety and welfare, and effect on the Commonwealth's natural resources;
- Feasibility, clarity and reasonableness;
- Substantive need for legislative review;
- Comments, objections or recommendations of a Committee; and
- Compliance with the RRA and the Commission's regulations.

All these criteria are used to determine if the regulation is "in the public interest."

To determine whether the regulation satisfies the remaining criteria, the Commission:

1. Analyzes comments from the Senate, House of Representatives and public;
2. Conducts independent research and outreach to the public and affected parties; and
3. Discusses issues with the agency and Committees.

The Commission must convey all its comments, recommendations, objections, concerns or questions regarding any provision in a proposed regulation in its Comments. A comprehensive review is necessary. The RRA states if the Commission does not comment on any portion of the proposed regulation and that portion is unchanged when the regulation is submitted in its final-form, the Commission shall be deemed to have approved that portion.

Following its review, the Commission will deliver its formal Comments to the agency, Committees and LRB. These Comments are also posted on the Commission's website (www.irrc.state.pa.us). The RRA requires the agency to **consider and respond** to every comment it has received on the proposed regulation from the public, Committees and Commission as it prepares the final-form regulation **(3A)**.

THE FINAL STAGE

The final stage begins when a final-form or final-omitted regulation is delivered to the Committees and Commission. For almost all regulations, this stage ends with review and approval at a single meeting of the Commission **(4, 5C and 16B)**. This is the last stop for a regulation under the RRA. After a final review by the Attorney General, the agency may publish the regulation in the *Pennsylvania Bulletin* with the full force and effect of law.

The chart on **page 9** illustrates the sequence for review of final-form and final-omitted regulations. A final-form regulation is published as proposed, with the opportunity for comment from the public, Commission and Committees. Preparing a final-form regulation may take an agency anywhere from a few weeks to the maximum two years allowed by statute. The time required

depends upon the complexity of the issues involved and the agency resources available. During this period, the agency may meet with the Committees, interested parties and Commission to discuss concerns raised during the proposed stage.

In contrast, a final-omitted regulation is not published as a proposed rulemaking nor offered for public comment. The preamble must include a justification for omission of the public comment period. The final-omitted regulation enters the process at the final rulemaking stage **(3C)**. **Page 18** discusses the specific circumstances under which final-omitted regulations may be promulgated. The procedures for review of a final-omitted regulation under the RRA are exactly the same as those for final-form regulations.

Delivery of the Final-Form or Final-Omitted Regulation

On the same date, the agency must deliver the final-form regulation and its response to all the comments received, or the final-omitted regulation, to the Committees and Commission **(3A)**. The agency must also provide to the Committees and Commission the names and addresses of commentators who requested notice of the final-form regulation.

The agency's notice to commentators must include a copy of the final-form regulation or a summary of the changes made to the proposed regulation. The agency must send the notice and required information to the commentators on the same date of delivery to the Committees and Commission. **If an agency does not deliver a final-form regulation within the two-year period, the regulation is deemed withdrawn and the rulemaking ends (3B).**

Agency Option to Withdraw Before Commission Action

After delivery, an agency may withdraw a final-form or final-omitted regulation. In this case, the agency must notify the Committees and Commission that it is withdrawing the final regulation. The agency may deliver the final regulation at a later date to the Committees and Commission as long as final-form regulations are delivered within the remainder of the two-year period. There is no time limit for final-omitted regulations. In effect, the final review process would start anew. The agency would also need to send the appropriate notice to commentators who requested it on final-form regulations. **If the agency does not deliver a final-form regulation within the two-year period, the rulemaking ends.**

Time Period for Review

A final-form or final-omitted regulation must be delivered to the Committees and the Commission on the same date **(3A and 3C)**. Following delivery, the Commission cannot act for at least 20 days. This assures the Committees an opportunity to review the regulation. The Commission may have until its next scheduled meeting, which occurs no less than 30 days after delivery of the regulation, to approve or disapprove the regulation **(4)**. **If the Commission does not act, it is deemed to have approved the regulation (5C).**

Committees can take action on a final-form or final-omitted regulation at any time up to 24 hours before the Commission's public meeting. A Committee can approve, disapprove or notify the agency and Commission of its intent to review the regulation **(5A)**. If a Committee disapproves or notifies the Commission and the agency of its intent to review the regulation, the Committee will have 14 days after it receives the Commission's Order to take action **(8)**. Even if the Commission approves the regulation, a Committee can still delay promulgation by reporting a concurrent resolution disapproving the regulation. If the Committee does not act during its 14-day review period, the agency may proceed with the promulgation of the regulation **(9B)**.

48-Hour Blackout Period

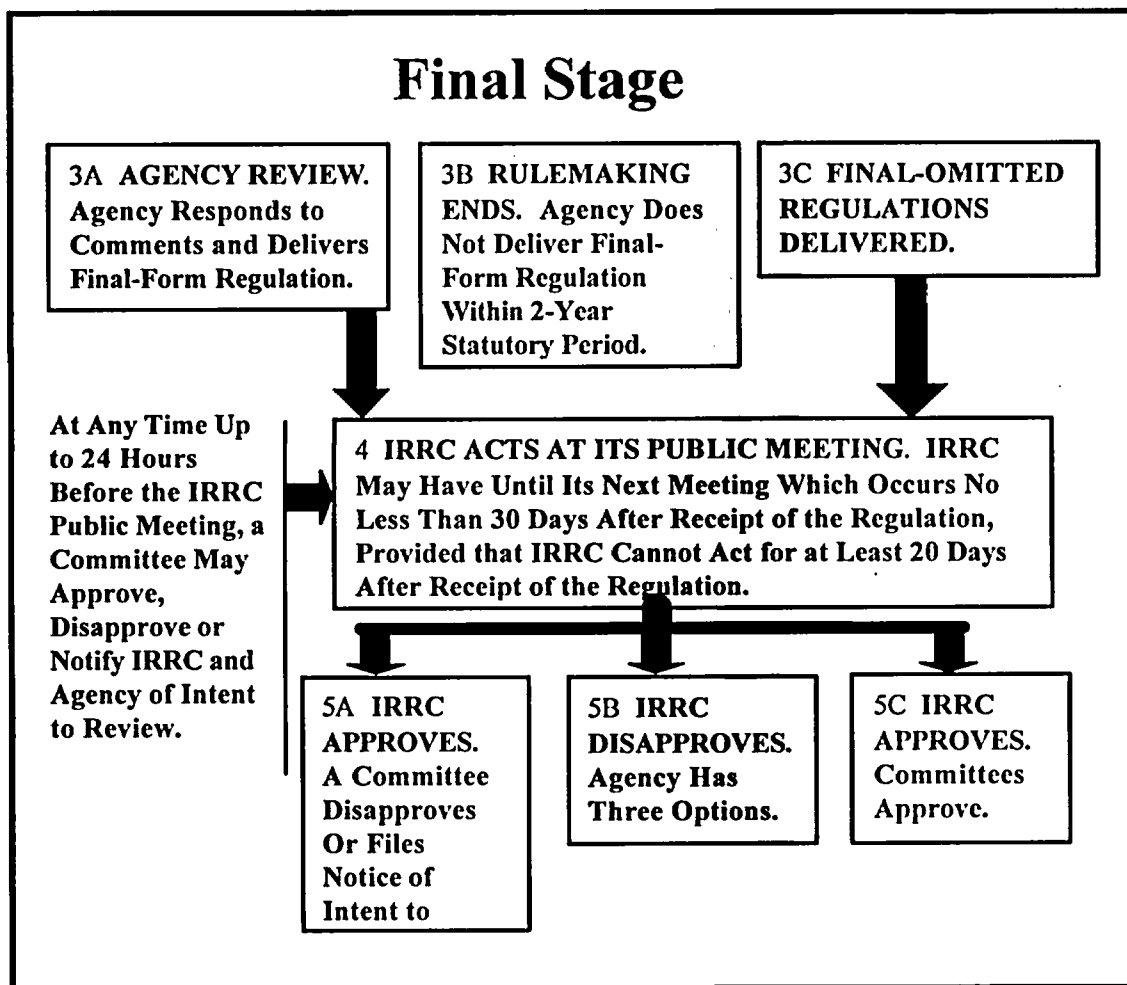
The RRA provides for a blackout period before the Commission's public meeting. Unsolicited comments relating to the substance of a regulation on the Commission's current public meeting agenda will be embargoed during the 48 hours before the start of the meeting. The blackout does not apply to communication between the Commission and agency staff or Members of the General Assembly and legislative staff. The Commission may also request information from outside sources.

At the start of the public meeting, embargoed material is distributed to the Commissioners. The Commission is required to keep the agency and Committees apprised of any communications it receives during the blackout. The Commission must transmit comments received during the blackout period to the agency and Committees upon receipt.

Commission Public Meetings

Generally, the Commission holds public meetings twice a month, on Thursdays. These meetings are structured, but informal, and may be rescheduled at the Commission's discretion to accommodate workload. However, the Commission is required to give ten days notice of rescheduled meetings to the Committees and agencies whose regulations are scheduled for action.

At the public meeting, the Commission reviews each regulation on its agenda. Then, a Commissioner makes a motion for approval or disapproval. The Chair invites the promulgating agency to respond to questions or make remarks. Legislators or their staff and interested members of the public are also invited to discuss their concerns with the Commissioners. During the discourse, the Commissioners may ask questions or voice concerns. This discussion enables the Commissioners to resolve any unanswered questions concerning the agency's intent or the



regulation's impact on the regulated community.

Finally, the Commissioners vote to approve or disapprove the regulation in its entirety. An Order is issued and delivered to the agency, Committees and LRB, and is posted on the Commission's website (www.irrc.state.pa.us). The Commission determines whether a regulation is "in the public interest" according to the criteria contained in **APPENDIX D** on **page 23**. In addition, the RRA places other limits on the scope of the Commission's review of a final-form regulation. The review of final-form regulations can relate only to the following areas:

- Comments, recommendations or objections raised by the Commission to the proposed version of the regulation;
- Amendments, additions, revisions or deletions to the proposed version; or
- Recommendations, comments or objections conveyed by a Committee to the agency or Commission.

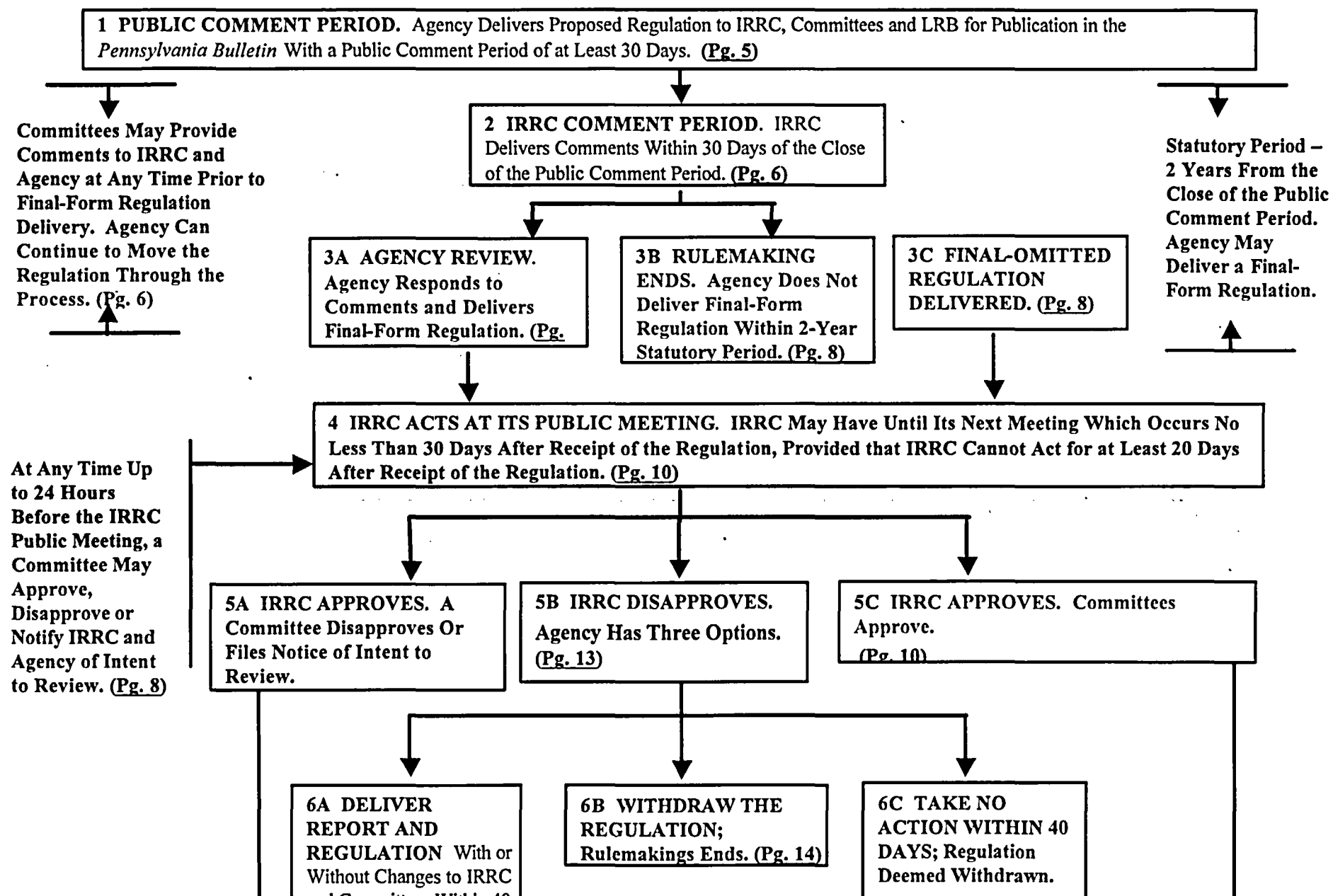
The Commission may find the regulation is in the public interest and approve it. Regulations may be approved by formal action or operation of law, commonly referred to as "deemed approved." The Commission is deemed to have approved a regulation when the Commission has not filed comments on the proposed regulation and the agency has not made any changes to the regulation from proposed to final-form. Similarly, if the Commission takes no action, or there is a tie vote, the regulation is deemed approved.

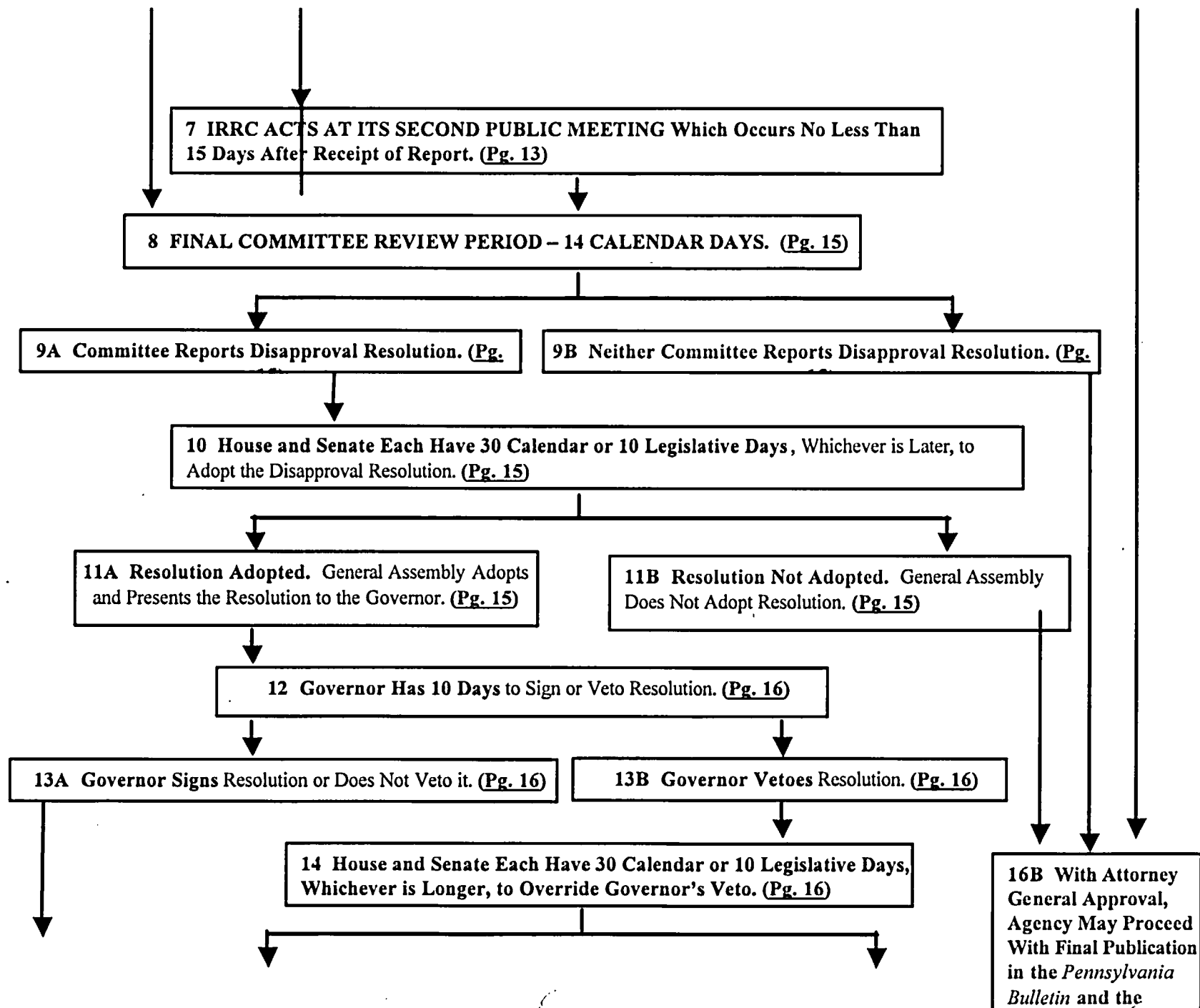
Commission Approval With Committee Approval

If the Commission approves the regulation and the Committees approve the regulation, the review process under the RRA is concluded (**5C**). If neither Committee disapproves or conveys notice of its intent to review and the Commission approves, the RRA allows the agency to submit the regulation to the Attorney General for final review. Upon the Attorney General's review for form and legality, the regulation is published in the *Pennsylvania Bulletin* (**16B**). The regulation becomes effective on the date of publication or on a later date specified by the agency in its order adopting the regulation. See chart on **Page 11**. As stated at the beginning of this section, this is the last stop under the RRA for most regulations. During the past five years, the Commission approved about 99 percent of the final regulations that it considered.

Blue - Highlights Actions; Green - Agency Proceeds with Final Publication; Red - Represents End of Process

Blue - Highlights Actions; Green - Agency Proceeds with Final Publication; Red - Represents End of Process





**16A Regulation is
Permanently
Barred.
(Pg. 16)**

15A Veto Override Succeeds. (Pg. 16)

**15B Veto Override Does Not
Succeed. (Pg. 16)**

Commission Approval With Committee Approval

5C IRRC APPROVES. Committees Approve.



16B With Attorney General Approval, Agency May Proceed With Final Publication in the *Pennsylvania Bulletin* and the Regulation is Effective.

OPPORTUNITIES FOR BUILDING CONSENSUS IN THE FINAL STAGE

On a small number of regulations, additional work is sometimes necessary before the final stage is complete and the regulations are approved. Fortunately, the RRA offers a degree of flexibility for the agency, Committees and Commission to consider and make changes necessary to achieve consensus. The basic rule in the RRA is that a final-form or final-omitted regulation cannot be amended after its delivery to the Committees and Commission. However, there are opportunities for agencies to modify regulations. Depending on the circumstances, consensus can be achieved before or after the Commission's first meeting on a particular regulation. This section describes the steps that may be used to resolve remaining concerns or questions related to final regulations.

Tolling the Time for Review

The intent of tolling is to allow an agency to make recommended changes to a final regulation before the Commission takes action on a regulation. Tolling provides a "time-out" in the review process to allow the agency to make corrections. The option to toll the time for review is limited, as illustrated in the chart on page 12.

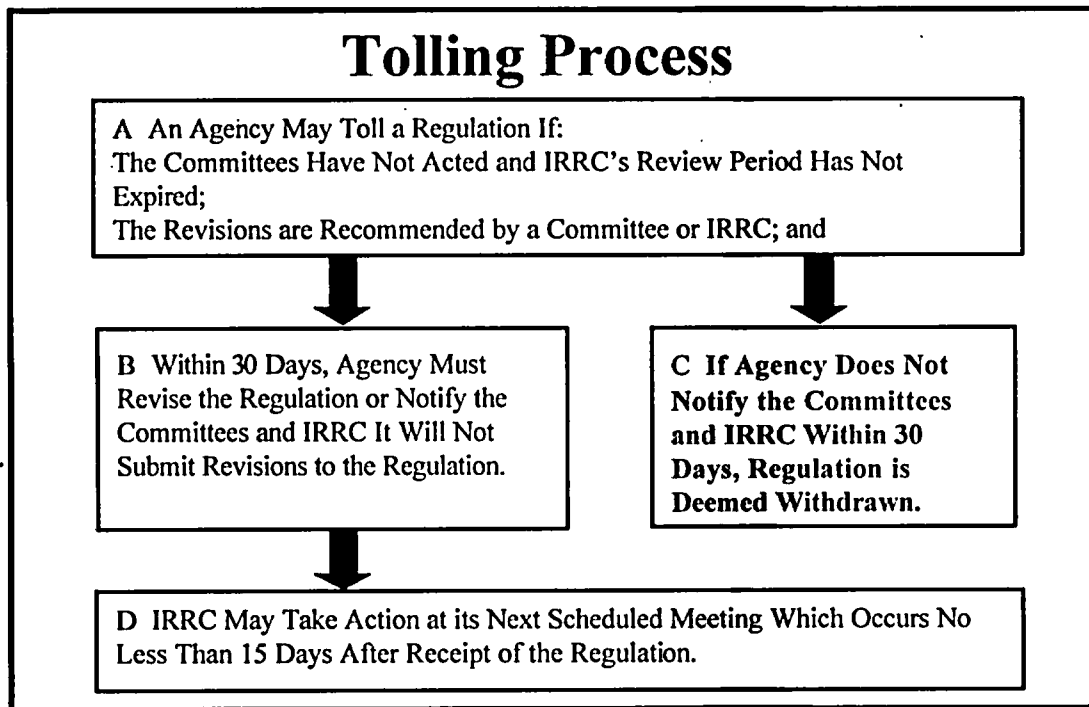
First, the opportunity to toll the review period exists only until **either** one of the Committees act or the Commission's review period expires, whichever occurs first. This ensures that both Committees and the Commission act on the exact same version of the regulation.

Second, tolling allows the agency to consider only those revisions recommended by a Committee or the Commission. The intent of tolling is to allow an agency time to make recommended changes to a final regulation.

Third, tolling is only permitted if the Commission does not object. If the Commission objects, review of the regulation continues and tolling cannot occur.

Last, the final review period may be tolled only once. Within 30 days from the beginning of the tolling period, the agency must deliver the revised regulation, or a statement that it will not make revisions to the regulation, to the Commission and the Committees **(B)**. If the agency does not meet the 30-day deadline, it is deemed to have withdrawn the regulation **(C)**.

Upon receipt of the revised regulation or notice that the regulation will not be revised, the Commission and Committee review resumes. The Commission may take action at its next scheduled meeting, which occurs no less than 15 days after delivery of the regulation.



Agency May Withdraw a Regulation

A second option available to an agency is to voluntarily withdraw the regulation to address related concerns. An agency may notify the Committees and Commission that it is withdrawing a regulation before the Commission's public meeting or at any time in the review process.

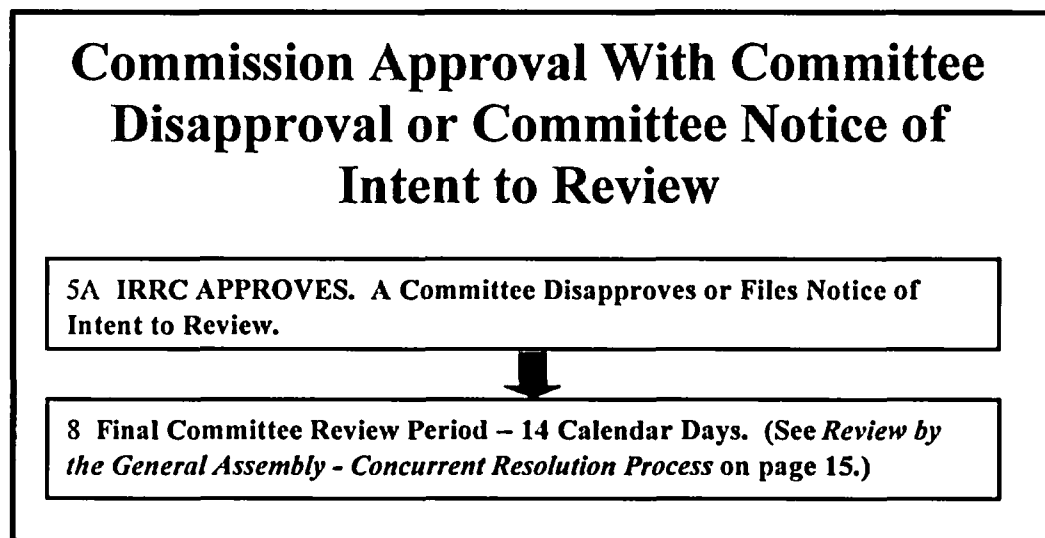
If the agency opts to withdraw a final-omitted regulation, it may submit that regulation again as a final-omitted at any time. Final-form regulations may also be withdrawn and submitted again at a later date. However, final-form regulations must be resubmitted within two years of the close of the public comment period, and the agency must again provide each commentator who requested notice with a copy of the final-form regulation or a summary of the changes made.

The withdrawal of a regulation is at the discretion of the agency. In addition, the reason or purpose of the withdrawal is also in the hands of the agency. It may want to reexamine the

regulation. The withdrawal may also serve the same purpose as a tolling and provide the agency with another opportunity to consider revisions to a regulation.

Commission Approval With Committee Disapproval or Notice of Intent to Review

If the Commission approves the regulation and either one or both of the Committees disapprove the regulation or notify the Commission and the agency of their intent to review the regulation (**5A**), the agency may not promulgate the regulation for 14 days after the Committee(s) receive the Commission's Order. During the 14-day review period, the Committee(s) that took action may report a concurrent resolution disapproving the regulation (**8**) (see *Concurrent Resolution Process* on page 15). If the Committee does not take action within 14 days, the regulation goes to the Attorney General for review (**9B**). Upon the Attorney General's review for form and legality, the regulation is published in the *Pennsylvania Bulletin*. The regulation becomes effective on the date of publication or on a later date specified by the agency in



its order adopting the regulation (**16B**).

Commission Disapproval

If the Commission acts to disapprove a regulation, it issues an Order specifying which criteria have not been satisfied (**5B**). The Order is delivered to the Committees, agency and LRB. The Commission also notifies commentators who requested notice related to the final-form regulation of the Commission's vote to disapprove.

Options for Attaining Consensus After Commission Disapproval

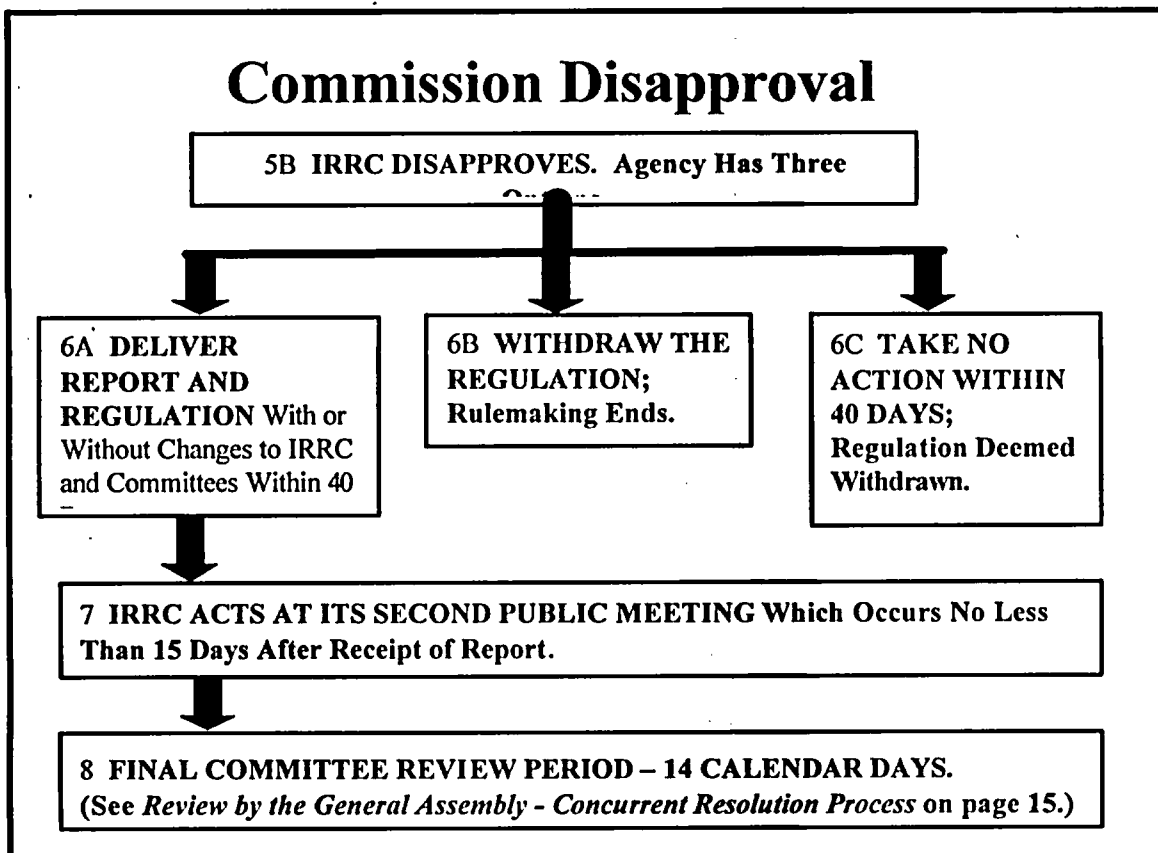
Resubmit With or Without Revisions

The agency may resubmit the regulation with or without modifications **(6A)**. In either case, the agency must submit a report to the Committees and Commission within 40 days of receipt of the disapproval Order. The report must contain the final-form regulation or the revised final-form regulation and the Commission's disapproval Order. If the regulation is submitted without revisions, it must contain responses to the concerns raised in the Commission's Order. If the regulation was revised, the agency must submit a detailed explanation of how the revisions respond to the Commission's concerns.

When an agency resubmits the regulation, it must deliver the report and either the unchanged or revised regulation to the Committees and Commission **(6A)**. The Commission may act at its public meeting, which occurs no less than 15 days after receipt of the resubmitted regulation. A regulation can be approved, deemed approved or disapproved by the Commission. The Commission must notify the Committees of the final disposition of the regulation **(7)**. The regulation is then subject to Committee review for 14 days (See *Final Review Period for Committees* on **page 15**).

Withdrawing After Commission Disapproval

An agency may withdraw a disapproved regulation **(6B)**. A voluntary withdrawal concludes the review process. If the agency wants to proceed with the rulemaking after withdrawal, it must submit a new final-form regulation to the Committees and Commission.



However, the agency must do so within two years of the close of the public comment period. If two-year deadline expires, the agency must restart the entire process.

Take No Action

An agency can opt to take no action **(6C)**. If the agency does not deliver a report to the Committees and the Commission within 40 days of the agency's receipt of the disapproval order, the regulation is deemed withdrawn. **A deemed withdrawal concludes the review process. As noted above, an agency may resubmit a regulation within two years of the close of the public comment period. If that deadline expires, the agency must restart the entire process.**

Final Review Period for Committees

The final review by either committee can be triggered by three events:

1. A Committee acts to notify the Commission of its intent to review the regulation at any time up to 24 hours before the Commission's first public meeting **(5A)**;
2. A Committee disapproves a regulation **(5A)**; or
3. The Commission disapproves a regulation at its public meeting. The agency resubmits the regulation, with or without revisions, to the Committees and Commission. After the Commission reviews the regulation, it notifies the Committees of the disposition of the regulation **(7)**.

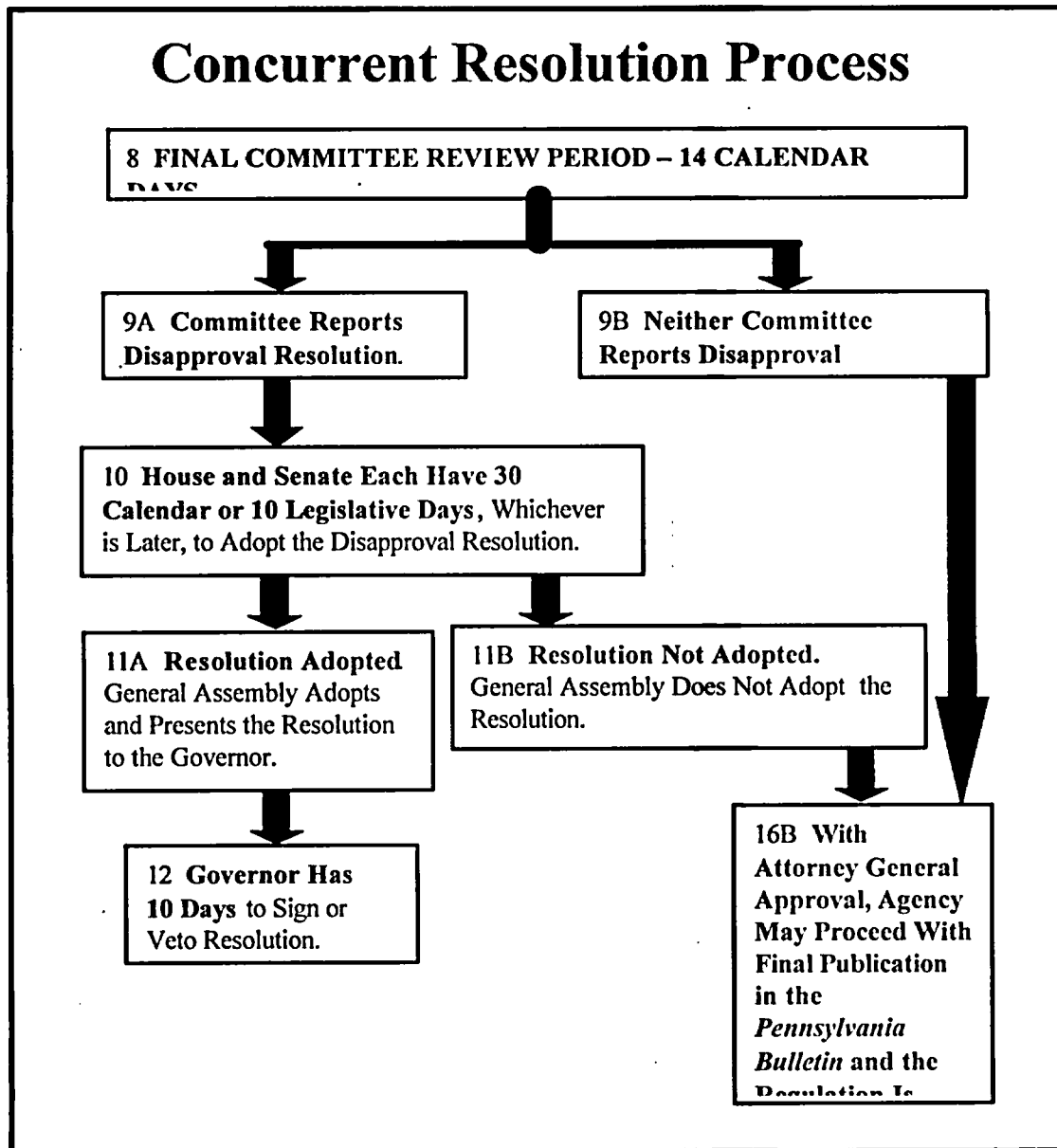
If a Committee takes one of the actions described in the first or second event, then that Committee has 14 calendar days to report a concurrent resolution **(8)**. In the third scenario, both Committees have 14 calendar days to report a concurrent resolution.

The 14-calendar day period begins on the day that the Commission delivers its Order to the appropriate Committees. **If the Committees do not report out a concurrent resolution within the 14 days, the agency may proceed with final promulgation (9B).** However, if a Committee reports a concurrent resolution disapproving the regulation **(9A)**, the promulgation is suspended until the legislative review process described in the next section is completed.

Review by the General Assembly – The Concurrent Resolution Review Process

The concurrent resolution review process begins when either a House or Senate Committee reports out a concurrent resolution disapproving the regulation **(8)**. From the date on which the concurrent resolution, disapproving the regulation, is reported **(9A)**, the Senate and the House of Representatives each have 30 calendar days, or ten legislative days, whichever is longer, to adopt it **(10)**.

Concurrent Resolution Process

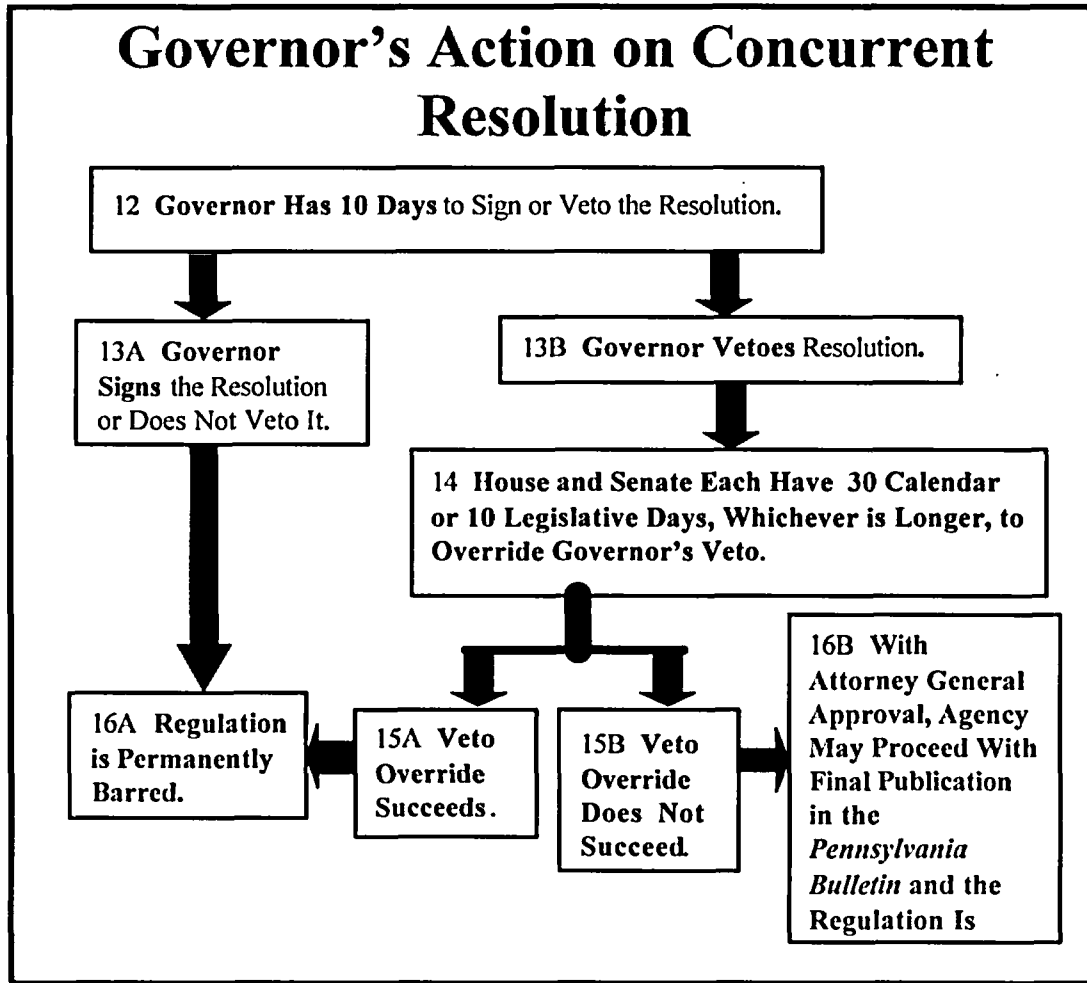


Both chambers must adopt the concurrent resolution by majority vote to continue the bar on the promulgation of the regulation. After adoption by both chambers, the concurrent resolution is presented to the Governor for consideration (11A). If one of the chambers does not adopt the resolution within the time period described in the above paragraph, the General Assembly is deemed to have approved the regulation (11B).

Governor Action on Concurrent Resolution

The Governor has ten calendar days to act on the concurrent resolution (12). If the Governor **signs** the resolution, or if the Governor **does not veto the resolution** within ten days, the resolution is approved and the regulation is permanently barred (13A & 16A).

Governor's Action on Concurrent Resolution



If the Governor **veto**s the resolution (**13B**), the Senate and the House of Representatives may override the veto. A veto override requires a **two-thirds** majority vote in **each chamber**, and must be passed within 30 calendar or ten legislative days, whichever is longer (**14**). A **successful veto override** will **permanently bar the regulation** (**15A & 16A**). However, if either chamber takes no action, or does not override the Governor's veto, the General Assembly is deemed to have approved the regulation (**15B & 16B**).

Summary of Concurrent Resolution Process

To summarize, the agency is permanently barred from promulgating a regulation if the Senate and the House of Representatives pass a resolution disapproving the regulation and **either** of the following events occur:

1. The Governor approves the concurrent resolution or does not veto it within ten days (**13A**); or
2. The Governor vetoes the resolution and the Senate and the House of Representatives override the Governor's veto (**13B & 15A**).

The agency may proceed with promulgation if **either** of the following events occurs:

1. The Senate or the House of Representatives does not adopt the concurrent resolution by majority vote (**11B**); or
2. The Governor vetoes the concurrent resolution and the Senate and House of Representatives do not override the Governor's veto by a two-thirds majority vote in each chamber (**13B & 15B**).

Limits on Final-Omitted Regulations

A final-omitted regulation is a regulation promulgated by an agency without prior publication in the *Pennsylvania Bulletin* of a notice of proposed rulemaking. There is no formal opportunity for public, Committee and Commission comments. Under the RRA, the procedure for review of final-omitted regulations is exactly the same as it is for final-form regulations.

The CDL establishes three very limited circumstances under which an agency is permitted to promulgate a final-omitted regulation. These occur when:

1. **Comments from the public are not appropriate, necessary or beneficial.** Regulations in this category generally relate to military affairs, agency management, organization or personnel, agency procedure or practice, Commonwealth property, loans, grants, benefits or contracts, or the interpretation of a self-executing statute.
2. **All persons subject to the regulation are named or given personal notice.** Examples of regulations in this category are those setting fees for licensing examinations. For these fees, licensure applicants are individually notified of the amount of the fee.
3. **Notice is impracticable, unnecessary or contrary to the public interest.** Regulations which have a significant and an immediate fiscal impact, and regulations which respond to emergencies fall under the categories of "impracticable" and "contrary to the public interest." Prior notice is generally found "unnecessary" when the agency is rescinding regulations for which the enabling statute has been repealed or amended.

In the review of a final-omitted regulation, eliminating the proposed stage saves approximately 60 days of review. Review periods under the Commonwealth Attorneys Act and RRA are also shortened to conserve time. The regulation is submitted, on the same day, to the Attorney General, Commission and Committees. This saves an additional 30 days because the Attorney General's review occurs **concurrently** with the Commission's and Committees' review. It does not have to follow Commission and Committee action as it does with final-form regulations.

Emergency Certified Regulations

The RRA allows an agency to immediately implement a final-form or final-omitted regulation when the Governor or Attorney General certifies that it is necessary to respond to an emergency. An emergency certified regulation takes effect upon publication in the *Pennsylvania Bulletin*, or on the date specified in the agency's adoption order. Although the Commission and Committees review the regulation in the same manner as they review all other final-form and final-omitted regulations, the regulation takes effect prior to the completion of the review process. If the regulation is approved, it is permanently effective. If it is disapproved by the Commission or a Committee, it remains effective

for 120 days or until finally disapproved under the concurrent resolution process, whichever occurs later.

The conditions under which the Governor or the Attorney General may certify a regulation as “emergency” are very limited. The Attorney General may certify that a regulation is necessary to satisfy the order of a state or federal court, or to implement the provisions of a federal statute or regulation. The Governor may certify that a regulation is required to avoid an emergency which may threaten the public health, safety or welfare, cause a budget deficit, or create the need for supplemental or deficiency appropriations of at least \$1,000,000.

Existing Regulations

The Commission may review any existing regulation that has been in effect for at least three years. This review **may** be undertaken either at the Commission’s own initiative or at the request of any person. If a member of the Senate or House of Representatives requests the review, the Commission must assign it high priority.

The Commission performs an advisory role in the review of an existing regulation. If the Commission finds that the regulation is contrary to the public interest because it does not satisfy the regulatory review criteria outlined in APPENDIX D on page 23, it may recommend changes to the agency. The Commission may also recommend legislative amendments to the Governor and General Assembly.

Published and Unpublished Documents

The Commission may review published and unpublished documents to determine whether they should be published as regulations. Such documents include statements of policy, guidelines, bulletins and other types of directives. If the Commission finds that the agency is enforcing such directives as regulations, it may present the matter to the Joint Committee on Documents (Joint Committee).

The Joint Committee will decide if the documents are regulatory in nature. If it concludes that they are, the Joint Committee may order the agency either to promulgate the document as a regulation within 180 days, or desist from using it.

Subpoena Power

The Commission may issue subpoenas to require the production of documents or the attendance of persons, if necessary to perform its functions. Either the Chairman or Executive Director may sign subpoenas. Subpoenas may be served in any manner authorized under Pennsylvania Law. If attendance or production of documents is not forthcoming, the Commission may apply to the Commonwealth Court for enforcement of its subpoena.

The Annual Report

By April 1 of each year, the Commission must file an annual report with the General Assembly and the Governor. The Commission’s annual report provides information about the Commission and lists all of the proposed and final regulations reviewed during the preceding year.

The Commission sends copies of its annual report to the Governor, Members of the General Assembly and anyone who requests one. The annual report is also available on the Commission's website at www.irrc.state.pa.us.

APPENDIX A

SUMMARY OF CHANGES TO THE REGULATORY REVIEW ACT

(ACT 148 of 2002)

Proposed stage: *At any time* before a regulation is submitted in final form, a Committee may submit comments to the agency and Commission.

- The 20-day limit on the Committee comment period has been eliminated.
- Committees have the opportunity to review the Commission's comments before deciding whether to submit comments.

Final stage: Committees have more time to act.

- The 20-day deadline for Committee action is eliminated.
- To provide Committees with adequate opportunity to review the regulation, the Commission must refrain from action for *at least* 20 days after delivery.
- Until 24 hours before the Commission acts on a final regulation, a Committee may approve, disapprove, or notify the Commission and agency that it intends to review the regulation after the Commission's final action. (If the Committees and Commission take no action, the regulation is deemed approved.)
- The Commission may have until its next scheduled meeting which occurs no less than 30 days after receipt of the final-form or final-omitted regulation, to approve or disapprove the regulation, provided that the Commission cannot act for at least 20 days after receipt of the regulation.

Some additional changes include:

- The 48-hour blackout period immediately preceding the Commission's public meeting *no longer applies* to communications between the Commission and the agency or Members of the General Assembly.
- A language revision clarifies that the review criteria of the Regulatory Review Act apply to all regulations subject to the Act. This provision applies to proposed, final-form, final-omitted, emergency certified, and existing regulations.
- A new review criterion is an agency's compliance with the Act and the regulations of the Commission.
- If a Committee notifies the agency and Commission of intent to review or disapproves, or if the Commission disapproves a final-form or final-omitted regulation, it will be subject to a final review by the Committees.

APPENDIX B

REGULATORY ANALYSIS FORM REQUIREMENTS

1. The title of the regulation, the name of the agency, and the names and telephone numbers of agency officials responsible for responding to questions and receiving comments.
2. A concise, non-technical explanation of the regulation.
3. A citation to the Federal or State statute or regulation, or the decision of a Federal or State Court, authorizing or affecting the regulation.
4. An explanation of the compelling public interest that justifies the regulation.
5. A statement of the public health, safety, and environmental or general welfare risks associated with non-regulation.
6. An identification of the types of person, businesses and organizations who will need to comply with the regulation and who will benefit or be adversely affected.
7. Estimates of the direct and indirect costs to the regulated community, the Commonwealth and its political subdivisions.
8. A description of required legal, accounting or consulting procedures, additional reporting, record keeping or other paperwork and measures taken to minimize these requirements.
9. A listing of provisions that are more stringent than federal standards and the compelling Pennsylvania interest that demands stronger regulation.
10. A description of how the regulation compares to regulations in other states and whether the regulation will put Pennsylvania at a competitive disadvantage.
11. A description of alternatives which have been considered and rejected, and a statement that the regulation is the least burdensome alternative.
12. A description of the input solicited during the development of the regulation, a schedule of any hearings, and the anticipated effective date.
13. A description of special provisions developed to meet the needs of affected persons, including minorities, elderly, small businesses and farmers.
14. A description of the plan developed for evaluating the continuing effectiveness of the regulation after its implementation.

APPENDIX C

LEGISLATIVE INTENT OF THE REGULATORY REVIEW ACT **(71 PS § 745.2(a))**

The General Assembly has enacted a large number of statutes and has conferred on boards, commissions, departments and agencies within the executive branch of government the authority to adopt rules and regulations to implement those statutes. The General Assembly has found that this delegation of its authority has resulted in regulations being promulgated without undergoing effective review concerning cost benefits, duplication, inflationary impact and conformity to legislative intent. The General Assembly finds that it must establish a procedure for oversight and review of regulations adopted pursuant to this delegation of legislative power in order to curtail excessive regulation and to require the executive branch to justify its exercise of the authority to regulate before imposing hidden costs upon the economy of Pennsylvania. It is the intent of this act to establish a method for ongoing and effective legislative review and oversight in order to foster executive branch accountability; to provide for primary review by a commission with sufficient authority, expertise, independence and time to perform that function; to provide ultimate review of regulations by the General Assembly; and to assist the Governor, the Attorney General and the General Assembly in their supervisory and oversight functions. To the greatest extent possible, this act is intended to encourage the resolution of objections to a regulation and the reaching of a consensus among the commission, the standing committees, interested parties and the agency.

APPENDIX D

REGULATORY REVIEW ACT CRITERIA

(Section 5.2 of Act 148 of 2002)

- Whether the agency has the statutory authority to promulgate the regulation.
- Whether the regulation is consistent with the intent of the General Assembly.
- Whether the regulation is in the public interest. To determine whether the regulation satisfies these criteria, the Commission considers:
 1. Economic or fiscal impact of the regulation which include the following:
 - i. Direct and indirect costs to the Commonwealth, political subdivisions and private sector;
 - ii. Adverse effects on prices, productivity or competition;
 - iii. The extent to which reports, forms or other paperwork are required and the estimated preparation cost incurred by individuals, businesses and organizations in the private and public sectors;
 - iv. The nature and estimated costs of legal, consulting or accounting services which the private or public sector may incur; and
 - v. The legality, desirability and feasibility of exempting or setting lesser standards of compliance for individuals or small businesses.
 2. The protection of the public health, safety and welfare, and the effect on the Commonwealth's natural resources.
 3. The clarity, feasibility and reasonableness of the regulation to be determined by considering the following:
 - i. Possible conflict with or duplication of statutes or existing regulations;
 - ii. Clarity and lack of ambiguity;
 - iii. Need for the regulation; and
 - iv. Reasonableness of the requirements, implementation procedures and timetables for compliance by the public and private sector.
 4. Whether the regulation represents a policy decision of such a substantial nature that it requires legislative review.
 5. Comments, objections or recommendations of a Committee.

6. Compliance with the provisions of this act or the regulations of the Commission in promulgating the regulation.

APPENDIX E

GLOSSARY

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| Agency | Any department, departmental administrative board or commission, independent board or commission, agency or other authority of this Commonwealth now existing or hereafter created, but shall not include the Senate or the House of Representatives, the Pennsylvania Fish Commission, the Pennsylvania Game Commission or any court, political subdivision, municipal or local authority. (71 P.S. § 745.3) |
| Comment and Response Document | A document accompanying a final-form regulation that contains the agency's response to each comment it received on the proposed rulemaking from the public, Committees and Commission. |
| Commission | Independent Regulatory Review Commission. |
| Commission Comments | Statements relating to a proposed regulation issued by the Commission in accordance with Section 5(g) of the RRA (71 P.S. § 745.5(g)). |
| Commission Order | A public document containing the Commission's findings and reasons for approval or disapproval of a final-form or final-omitted. |
| Commission Public Meeting | The public session at which the Commission staff briefs the Commissioners on the regulations scheduled for action at the Commission's public meeting and the Commission takes formal action on regulations. |
| Committee | A standing committee of the Senate or the House of Representatives designated by the President pro tempore of the Senate for the Senate or by the Speaker of the House of Representatives for the House. Designation shall prescribe the jurisdiction of each standing committee over the various state agencies for purposes of the RRA. The designation shall be transmitted to the Legislative Reference Bureau for publication in the <i>Pennsylvania Bulletin</i> . (71 P.S. § 745.3) |
| Committee Action | Approval or disapproval of a regulation, or notice that the committee intends to review the regulation pursuant to Section 5.1(j.2) of the RRA. (71 P.S. § 745.5a(j.2)). |
| Concurrent Resolution | A resolution initiated by a Committee to bar final promulgation of a regulation disapproved by the Commission or a Committee. |

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| Deemed Approved by the Commission | The approval of a regulation by the Commission by operation of law when the Commission has not approved or disapproved the regulation or agency report submitted in accordance with the RRA. |
| Embargoed Materials | Unsolicited documents pertaining to a regulation on the agenda for the Commission's public meeting delivered during the blackout period by any party other than the agency or Members of the General Assembly and their staffs. |
| Emergency Certified Regulation | A regulation certified by the Attorney General or the Governor pursuant to Section 6(d) the RRA as necessary for compliance with a court order or statutory mandate, or to respond to an emergency. |
| Executive Agency | An agency under the jurisdiction of the Governor. |
| Existing Regulation | An enforceable regulation contained in the <i>Pennsylvania Code</i> . |
| Final-Form Regulation | A regulation previously published as a proposed regulation pursuant to the act of July 31, 1968 (P.L. 769, No. 240), referred to as the Commonwealth Documents Law, which an agency submits to the Commission and the Committees following the close of the public comment period. (71 P.S. § 745.3) |
| Final-Omitted Regulation | A regulation which an agency submits to the Commission and the Committees for which the agency has omitted notice of proposed rulemaking pursuant to Section 204 of the act of July 31, 1968 (P.L. 769, No. 240), referred to as the Commonwealth Documents Law. (71 P.S. § 745.3) |
| Independent Agency | An agency that does not fall under the Governor's jurisdiction, such as the Pennsylvania Public Utility Commission, Treasury Department and Pennsylvania Labor Relations Board. |
| LRB | Legislative Reference Bureau. |
| <i>Pennsylvania Bulletin</i> | The official gazette of the Commonwealth of Pennsylvania which is published every Saturday by the LRB and is available online at www.pabulletin.com . |
| <i>Pennsylvania Code</i> | The official codification of Pennsylvania's administrative rules and regulations and is available online at www.pacode.com . |

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| Proposed Regulation | A document intended for promulgation as a regulation which an agency submits to the Commission and the Committees and for which the agency gives notice of proposed rulemaking and holds a public comment period pursuant to the act of July 31, 1968 (P.L. 769, No. 240), referred to as the Commonwealth Documents Law. (71 P.S. § 745.3) |
| Public Comment Period | The period of following the publication of a proposed regulation in the <i>Pennsylvania Bulletin</i> , during which the public may submit recommendations or objections to the agency. |
| Regulation | Any rule or regulation, or order in the nature of a rule or regulation, promulgated by an agency under statutory authority in the administration of any statute administered by or relating to the agency or amending, revising or otherwise altering the terms and provisions of an existing regulation, or prescribing a practice or procedure before such agency. (71 P.S. § 745.3) |
| Regulatory Analysis Form (RAF) | A form containing information about a regulation, including the agency's statutory authority, title of the regulation, a description of the regulation, a cost/benefit analysis, an impact analysis and the timeframe for the adoption of the regulation. |
| Regulatory Review Criteria | The requirements contained in Section 5.2(a) and (b) of the RRA that a regulation must satisfy in order for the Commission to determine that the regulation is in the public interest. |
| <i>Sine Die</i> | The final adjournment of the Senate and the House of Representatives by November 30 of even numbered years. |
| Statement of Policy | An announcement to the public of the policy that an agency intends to implement in a future rulemaking or adjudication. The announcement provides guidance to regulated entities as to the factors an agency will consider in deciding matters over which it has jurisdiction, but does not constitute a binding norm. |
| 48-Hour Blackout Period | The 48-hour period immediately preceding the call to order of the Commission's public meeting that applies to embargoed material. (71 P.S. § 745a(j)) |

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**DEPARTMENT OF ENVIRONMENTAL PROTECTION
POLICY OFFICE**

DOCUMENT NUMBER: 012-0820-001

TITLE: Development, Approval and Availability of Regulations

AUTHORITY: The Administrative Code of 1929 (1929 P.L. 177, No. 175), Regulatory Review Act (71 P.S. §745.1-745.15), Commonwealth Documents Law, and the Commonwealth Attorneys Act (71 P.S. §732.101-506).

POLICY: The Department of Environmental Protection (DEP) will follow a department wide, standard process for developing, approving and distributing regulations.

PURPOSE: To establish criteria for the content of regulations and to create a uniform process for developing these documents, consistent with 4 *Pennsylvania Code*, 1.371-1.382, relating to Regulatory Review and Promulgation. This guidance also explains the process DEP follows to promulgate regulations in the Commonwealth, as well as the process followed to distribute regulations to the Environmental Quality Board (EQB), the Coal and Clay Mine Subsidence Insurance Board, and the public.

APPLICABILITY: This policy applies to the development, approval and dissemination of proposed and final regulations under the authority of DEP.

DISCLAIMER: The policies and procedures outlined in this guidance document are intended to supplement existing requirements. The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the rules in these policies that weight or deference. The policies and procedures merely announce the policy that DEP intends to apply in the future development and approval of its regulations. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: __ pages, including attachments.

LOCATION: Volume 1, Tab 2

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I. REGULATORY DEVELOPMENT PRIORITIES

When non-regulatory alternatives do not exist to address or meet an environmental objective, the Department may initiate a rulemaking. Rulemakings can be initiated in response to state or federal law, new or revised state or federal regulations, to clarify an existing regulation, or in response to a rulemaking petition submitted to the Environmental Quality Board (EQB).

All department rulemakings, regardless of their specific objective, must reflect the Department's overall priority of achieving measurable improvement in human health and safety and environmental protection in every program. (See Priority Statement Attachment __) They should also strive to achieve the mutually compatible goals of increased environmental protection and improved human quality of life.

In addition, all department rulemakings, to the extent possible and appropriate, should further the following specific priorities:

- Sustainable energy production and use.
- Watershed protection
- Community revitalization and development.
- Mine Safety
- Fiscal Responsibility

II. REGULATORY DEVELOPMENT CRITERION:

Specific Commonwealth laws and administration directives prescribe certain principles and criteria that must be followed when drafting and promulgating new regulations and amendments to current regulations. These criteria must be used by Department staff in drafting new regulations and amendments to existing regulations.

Administration Priorities:

Department regulations shall be developed to address and reflect the Department's overall priorities of increased environmental protection and improved human quality of life. Specific priorities include: Sustainable Energy Production and Use; Watershed Protection; Community Revitalization and Development; Mine Safety; and Fiscal Responsibility. Appendix A contains an explanation of these priorities and a checklist to assist in developing regulations that are reflective of the Administration's priorities.

Regulatory Drafting and Promulgation Procedures:

In 1996, regulatory drafting and promulgation procedures were established and codified at 4 *Pa Code*, 1.371 for the development of new regulations and the review of existing regulations. These procedures and principles must be adhered to by Department staff when drafting new regulations and amendments to existing regulations. Appendix B contains a list and explanation of these drafting principles.

III. STEPS IN THE REGULATORY DEVELOPMENT PROCESS

Standard Process:

1. Request to Initiate a Proposed Rulemaking - This step begins with the bureau director requesting the Secretary's approval to initiate development of a regulation. It includes the submission of a memo to the Secretary (see Appendix C). No action should be taken to develop the proposed regulations until the Secretary through the Regulatory Coordinator grants formal approval.

2. Development of Proposed Rulemaking – This step includes discussion with appropriate advisory committees, preparing a proposed rulemaking package, obtaining necessary approvals within established timeframes, Environmental Quality Board (EQB) consideration and approval. The proposed rule is then published for public review and comment.

3. Development of Final Rulemakings - This step includes discussion with appropriate advisory committees, preparing a final rulemaking package, obtaining necessary approvals within established timeframes, EQB consideration and approval. The final rule is then published and becomes effective.

Other Processes Available (See Appendix ___ for details):

1. Advance Notice of Proposed Rulemaking (ANPR) Procedure - This is an optional procedure established for the Department to formally publish and solicit comments on draft regulations prior to presenting a proposed rulemaking to the EQB. An ANPR should be used when input from a specific regulated community is needed to provide direction in drafting new regulatory requirements, if a relevant advisory committee does not exist or does not have that specific representation. The comments DEP receives on draft regulations, as a result of publishing an ANPR, are summarized in the Preamble of the rulemaking and submitted to the EQB as part of the proposed rulemaking. To use this procedure, Department staff must submit a memo to the Secretary requesting approval to proceed with the ANPR (see Appendix D).

2. Advance Notice of Final Rulemaking (ANFR) Procedure - This optional procedure was established to solicit comments on draft final regulations prior to presenting a final rulemaking to the EQB, and should be used when significant changes are made to a proposed rulemaking. Comments the Department receives on draft final regulations as a result of publishing an ANFR are summarized in the preamble and in a separate comment/response document that are submitted to the EQB as part of the final rulemaking. The Secretary's approval to use this procedure is required. (See Appendix F)

3. Final-omitted Rulemaking Procedure – This optional procedure enables an agency to submit to the Independent Regulatory Review Commission (IRRC) and the Standing Legislative Committees a regulation for which the Department has omitted notice of proposed rulemaking, pursuant to Section 204 of the Commonwealth Documents Law. Under a final-omitted rulemaking, there is no formal opportunity for comment from the public, IRRC or the Standing Legislative Committees. A final-omitted regulation can only be pursued under three limited circumstances, which include the following:

- Comments from the public are not appropriate, necessary or beneficial.
- All persons subject to the regulation are named or given personal notice.
- Notice is impracticable, unnecessary or contrary to the public interest.

IV. PROCEDURES FOR DEVELOPMENT AND APPROVAL OF PROPOSED RULEMAKINGS - *Standard Process*

A. Requesting Secretary's Approval to Begin Development of a Regulation:

Before initiating the development of any departmental regulation, the Bureau Director must request and receive approval from the Secretary. To initiate this process, the Bureau Director must submit a written request to the Secretary, through the Deputy Secretary and the Regulatory Coordinator, requesting approval to begin development of a regulation. The memo must summarize the proposed regulation and address compelling questions about the rulemaking, including its intended purpose, the statutory authority for the proposal, costs/benefits, the intended regulatory schedule for the rulemaking, programmatic impacts of the proposed regulation, and the anticipated public involvement procedures that will be followed by the Department to solicit input on the proposed rulemaking (see Appendix C for the memo to be used for this step). In addition, a draft concept paper intended for distribution and discussion with the Agricultural Advisory Board, Citizens Advisory Council and appropriate advisory committee should be attached. Program staff is encouraged to work directly with the Department Economist to accurately describe the potential impact of the proposed regulation.

If the proposed regulation has already been approved for development as part of the regulatory initiative, the Bureau Director need not submit a detailed memo (although they are encouraged to do so) but must submit the concept paper for review and approval prior to distribution.

Following approval of the request by the Secretary, the Regulatory Coordinator will notify the Bureau Director of the approval, with copies to the Deputy Secretary, the Deputy Secretary for Field Operations (except for mining regulations), the Chief Counsel, and program and legal staff. The proposal will be added to the Regulatory Agenda. The Regulatory Agenda is available electronically on DEP's web site under the Public Participation Center and is updated on a continuing basis. In addition, the Six-Month Regulatory Agenda is published semiannually by the Governor's Office of Policy in the *Pennsylvania Bulletin* in February and July of each calendar year.

B. Preparing a Proposed Rulemaking Package:

Following the Secretary's approval to begin development of a regulation, program staff should prepare a concept paper for distribution to the Citizen's Advisory Council and the appropriate advisory committee. Approval should be obtained from the Deputy Secretary before distribution or discussion of the concept paper. Utilizing input from the advisory committee(s), program staff should develop the proposed rulemaking package with the assistance of the program's lead attorney from the Bureau of Regulatory Counsel and with input from the lead Regional Director. Using the team approach in the development of regulations is strongly encouraged. Appropriate central and regional program, legal and policy staff should be involved early in the development of regulations so that each office has had the opportunity for input prior to when the proposal goes through senior management review.

The appropriate advisory committee, and in some cases the Agricultural Advisory Board and the Citizens Advisory Board must be consulted in the development of the regulation. The Policy Office, Regulatory Counsel and the Secretary must approve drafts of the proposed

regulation before being submitted to an advisory committee for review. **The advisory committee's report or recommendations must accompany the proposed rulemaking packet when it is submitted to the Policy Office for EQB consideration.** Draft regulations submitted to advisory committees for review are available to the public when they are mailed to the advisory committee. Regulations are also posted to the DEP web site at that time under the appropriate advisory committee in the Public Participation Center.

Proposed regulations that regulate agriculture **must** be presented to the Agricultural Advisory Board at least 120 days prior to EQB action. Proposed regulations that affect, but do not regulate, agriculture must also be presented to this Board in advance of EQB consideration. If there is any question if a regulation should be presented to the Agricultural Advisory Board, the Deputy Chief Counsel should be consulted. (Add reference to statute here.)

In addition, Section 7.6. (Advice to Department) of the Air Pollution Control Act requires the department to consult with the Citizens Advisory Council, as appropriate, in the consideration of state implementation plans and regulations developed by the department and needed for the implementation of the Clean Air Act. The timing and extent of this consultation is fluid and generally initiated by the CAC Executive Director. Regardless, it is the responsibility of the program to identify these particular regulations and following appropriate internal review, provide them to CAC for discussion in adequate time for meaningful input.

C. Contents of a Proposed Rulemaking Package:

1. **Cover Memorandum** - The cover memorandum serves as the official document to receive senior management approval of the proposed rulemaking before the regulatory package is submitted to the Secretary. The cover memorandum should include the information and follow the form outlined in Appendix G.
2. **Executive Summary** – The executive summary is a one or two page summary of the regulatory proposal prepared for the members of the EQB that identifies the following:
 - Title of the regulation.
 - Specify whether the regulation is new or an amendment to existing regulations.
 - Summary of the proposal.
 - Purpose of the proposal. (If companion federal regulations exist, note whether this proposal will be more stringent than the federal requirements.)
 - Specify who will be affected by the regulation.
 - If applicable, a description of the involvement of an advisory committee that was involved in the development of the regulation (i.e. specify when the committee met to review the draft regulation, the comments or recommendations offered by the committee, etc.). **A letter from the appropriate advisory committee, the Agricultural Advisory Committee, and the Citizens Advisory Council indicating its recommendation(s) must be attached to the Executive Summary.**
 - The deadline for adoption of the regulation, if applicable, including an explanation of the mandated deadline.

- The length of the recommended public comment period (minimum 30 days), and the number of public meetings or hearings that should be scheduled, if applicable.
3. **Preamble** - Each regulation submitted for review shall contain a brief preamble, written in clear and concise language, which describes in nontechnical terms the compelling public need the regulation is designed to address, what the regulation requires in legal and practical terms and whom the regulation is likely to affect. The preamble, which is published in the *Pennsylvania Bulletin*, should be used by the Department to articulate how the proposed regulation will improve environmental quality in the Commonwealth, including the improvement of public health, safety and welfare of the state's citizens. It should include the following sections:
- Effective Date.
 - Contact Persons.
 - Statutory Authority: If the proposed regulations contain standards or requirements more stringent than imposed by federal law, the Department shall include a statement in the Preamble that describes the standards or requirements that exceed the requirements imposed by federal law and the basis for those requirements in state law. Included with this statement should be an analysis comparing the state requirements to the federal requirements, including the appropriate citations to the federal law or regulations. Department staff shall also include in the Preamble a discussion of the policy or technical reasons for imposing a regulation that exceeds the federal requirements, and an explanation of the economic analysis of their decision to impose the stricter requirements. A statement about how the state standard or requirement to be imposed is achievable under current or reasonably available technology shall also be included, as well as how DEP will involve and inform the public of the purpose, requirements, costs, and consequences of adopting the regulation.
 - Background and Purpose: The preamble shall contain a provision that clearly describes how the agency will identify the environmental objective to be achieved and measure whether the rule is achieving the desired result.
 - Summary of Regulatory Requirements.
 - Benefits, Costs and Compliance. (Guidelines for completing this section are included as Appendix H): The preamble shall contain a summary of the compliance assistance plan addressing possible types of financial assistance, as well as technical and educational assistance. Educational and informational materials on the new regulation should clearly identify new regulatory requirements. In addition, the following language must be included for any regulations with jurisdiction over fees. "Costs to the Commonwealth - Within one year of adoption of the final rulemaking and every three years thereafter, the Department will evaluate the effectiveness of the regulation, including direct and indirect costs to the Commonwealth, and recommend any changes to the Board."
 - Pollution Prevention (if applicable).
 - Sunset Review.

- Regulatory Review.
 - Public Comments.
 - Public Hearings (if applicable).
4. **Annex A – Regulation:** This is the actual text of the proposed regulation showing additions (bolded and underlined) and deletions (bolded and bracketed). The text of the regulation is printed in the *Pennsylvania Bulletin* as Annex A. Program staff must use current *Pennsylvania Code* text as the basis when drafting proposed regulations. This text is available electronically at www.pacode.com. It is important to include as much regulatory text in Annex A as necessary to provide the EQB members with a clear understanding of the amendments. This may include “lead-ins” to incomplete sentences or sections that are not being proposed for change. Text that is not being amended will not be published in the *Pennsylvania Bulletin*.

As regulations are being drafted, be aware that the Legislative Reference Bureau (LRB) has certain style standards that they will enforce before they will publish proposed or final regulations in the *Pennsylvania Bulletin*. A copy of the LRB Style Manual is posted at the Policy Office IntraDEP Website (scroll down to "Guidance" and select *Pennsylvania Code & Bulletin Style Manual*) <http://intradep/OPC/opchome.htm>

Adherence to the LRB style Manual should avoid any reason for the LRB to make edits prior to publication. In addition, the LRB has offered to review draft documents and offer numbering and formatting suggestions early in the drafting process. Upon request by program staff, the Regulatory Coordinator will send a copy of draft documents to LRB for review.

Refer to the guidelines in Appendix I for the correct format of Annex A.

5. **Regulatory Analysis Form (RAF)-** This form includes 31 questions about the proposal and is included as Appendix J. The form is not submitted to the EQB, but is a public document and is used by the Independent Regulatory Review Commission (IRRC), the Standing Committees of the House and Senate, the Office of General Counsel, the Governor’s Policy Office and the Governor’s Budget Office during their respective reviews of the regulation. To accurately describe the potential impact of the proposed regulation, development of the RAF with the assistance of the Department Economist is strongly encouraged.

6. **Fee Report Form -** (required only when a regulation establishes or revises a fee charged by the Commonwealth). The fee report form is used to justify new or revised fees. This form, including instructions, is included as Appendix K.

7. **Stream Reports –** (required only when a proposed regulation is developed pursuant to a stream redesignation petition).

D. Submission of Proposed Rulemaking Package to the Policy Office

When a regulation is formally submitted to the Policy Office for EQB consideration, it ceases to be a public document as it undergoes internal review until it is released to the EQB two weeks prior to the meeting at which it will be considered. If requests from the public are received during this time period, the advisory committee draft as posted on the advisory committee website should be provided.

Deadlines for submitting regulations to the Policy Office, with approval from the Deputy Secretary, are a minimum of 16 weeks prior to the meeting in which the EQB will consider the rulemaking package. These deadlines are established to enable required reviews as follows: Policy Office (3 weeks), Office of Chief Counsel (3 weeks), Special Deputy Secretary and briefing the Secretary (4 weeks), the Governor's Office of General Counsel, the Governor's Policy Office and the Governor's Budget Office (4 weeks), Corrections/Copying and Preparation for EQB Mailing (2 weeks). All EQB meeting agenda materials are posted on the EQB website and mailed to EQB members at least 2 weeks prior to the EQB meeting.

Three copies (one original and two copies) of the regulatory package must be received by the Policy Office, signed by the Deputy Secretary. Paper copies of regulations submitted to the Policy Office must be accompanied by an electronic version of each document in the regulatory package. Each regulatory document must be saved separately on a 3 ½" diskette or CD. A specific font is not required for the regulatory package; however, 12 pitch is recommended. Tables instead of tabs or indentations should also be used in each regulatory document.

E. Review by the Policy Office

The Policy Office reviews the proposed regulations for conformity with the Administration's priorities and for conformity with the regulatory drafting and promulgation procedures established at 4 *Pa Code*, 1.371. In addition to this analysis, the Policy Office also reviews the regulatory package for completeness, format, clarity and substance. If significant changes are necessary, the regulatory package is returned to the Bureau Director and is rescheduled for the following month's meeting to allow time for revisions. If the Policy Office recommends no revisions or minor revisions, the review process continues and the regulatory package is forwarded to the Office of Chief Counsel. Programs are encouraged to forward advance drafts of proposed rulemakings to the Regulatory Coordinator for advance review. In the event significant changes are necessary, the program will be notified and the significant changes can be addressed before the package moves further in the review process. The Policy Office will solicit input from by the Department Economist.

F. Review by the Office of Chief Counsel

The Office of Chief Counsel has a three-week period within which to review, approve, and return the regulation package to the Policy Office. The Chief Counsel must approve the regulatory package following any revisions necessary as a result of the legal review. The regulatory package, when returned to the Policy Office, must be accompanied by a legal and policy memo addressed to the Secretary outlining any legal and/or policy issues associated with the regulation. Following Chief Counsel's approval of the regulatory package, the Special Deputy Secretary reviews the proposed regulation.

G. Approval by the Special Deputy Secretary and Secretary

Following the Special Deputy Secretary's review and approval of the proposed regulation, the Regulatory Coordinator schedules a Regulatory Briefing with the Secretary to obtain the Secretary's approval of the regulation. The Regulatory Coordinator, Special Deputy Secretary, Policy Director, EQB Legal Counsel, Deputy Secretary, Bureau Director, and lead program staff are required to attend this briefing. Representatives from the Governor's Policy Office are also invited to attend this briefing.

H. Review by the Governor's Office of General Counsel, the Governor's Policy Office and the Governor's Budget Office

After the Secretary approves the regulation, the Regulatory Coordinator forwards the proposed rulemaking package to the Office of General Counsel, the Governor's Policy Office, and the Governor's Budget Office for preliminary review. These oversight agencies may contact the Policy Office to seek clarification or request changes. The Policy Office will work with program and legal staff to resolve any concerns. The Bureau of Regulatory Counsel must respond to legal concerns raised by the Office of General Counsel. The Office of General Counsel and the Governor's Policy Office will notify the Policy Office when preliminary approval of the proposed rulemaking is obtained. The Office of General Counsel will grant formal approval following EQB action, provided that the Department identifies all significant changes made to the rulemaking since preliminary approval was granted.

I. EQB Legislative Briefing

As the regulatory package is concurrently reviewed by the Office of General Counsel, the Governor's Policy Office and the Governor's Budget Office, the Regulatory Coordinator will schedule a Legislative Briefing on the regulatory proposal with the legislative members of the EQB. The Regulatory Coordinator, EQB Legal Counsel, Bureau Director, and lead program and legal staff are required to attend this briefing. In addition, the Department's Legislative Director is also invited to attend this briefing. The purpose of this briefing is to provide the EQB legislative members with an overview of the regulation and for Department staff to answer any questions posed by the EQB legislative members. All materials provided for this briefing are to be marked as draft documents.

J. Review by the Environmental Quality Board

The EQB meets the third Tuesday of each month when there are a sufficient number of agenda items to consider. Regulatory packages are mailed and sent electronically to the EQB members and alternates at least two weeks prior to each meeting. (Please note, the bureau director cover memo to the Secretary and the Regulatory Analysis Form are not included in the Regulatory Package that is distributed to the EQB). In addition to these distribution steps, the Regulatory Package is also posted on the Department's Public Participation Center website at <http://www.dep.state.pa.us>, at least two weeks prior to the EQB meeting.

At the EQB meeting, the Deputy Secretary presents the proposed rulemaking with the assistance of the Bureau Director and program counsel and responds to any concerns EQB members may have. The EQB takes formal action on each rulemaking. The length of the public comment period and any public meetings and/or hearings are incorporated into

approval motions for each rulemaking considered. Although DEP can recommend the length of the public comment period and/or the number of public meeting or hearings to be held, the EQB has the ultimate discretion to determine and approve these details. After the EQB meeting, the program must provide a copy of the Deputy's EQB presentation slides so that they can be added to the EQB website.

K. Review by the Office of Attorney General

After the EQB approves a proposed regulation, the Regulatory Coordinator transmits the regulation to the Office of General Counsel for formal approval, which, in turn, forwards the regulation to the Office of Attorney General. The Office of Attorney General ~~must issue~~ generally issues an opinion as to form and legality of the regulation within 30 days ~~or the regulation is deemed approved~~. If the Office of Attorney General finds that the regulation is outside the promulgating agency's statutory authority, or is otherwise not in conformity with law, it conveys its concerns to the Office of General Counsel within the 30-day review period in a tolling memo. Issuance of a tolling memo suspends the 30-day review period until the Department satisfactorily responds to the concerns. The Policy Office coordinates the response to a tolling memo with the Bureau of Regulatory Counsel.

L. Publication and Public Comment

a) Publication in the *Pennsylvania Bulletin* - Following approval by the Office of Attorney General, the Policy Office submits the proposed rulemaking to the Standing Committees and IRRC and to the Legislative Reference Bureau (LRB) for publication in the *Pennsylvania Bulletin*. Prior to publication of the rulemaking, the LRB will provide a copy of the draft publication for review and comment by DEP staff. The Regulatory Coordinator will inform the lead program contact and program attorney when the draft is expected to be received and when edits must be provided to be included in the final publication. The Regulatory Coordinator will communicate any revisions to the LRB. Program staff may request "overruns" of the *Pennsylvania Bulletin* for public distribution by calling the Policy Office at least one week in advance of the publication date of the rulemaking. No minimum order is required; however, the per-copy cost of orders of less than 1,000 copies is considerably more expensive. Overruns are especially useful as handouts at public meetings and hearings if they are scheduled in conjunction with the proposal. Programs should also provide copies of regulations to their advisory committee members and encourage comment on proposed regulations.

b) Public Comment Period and Commentator List - The official public comment period commences with publication of the proposed rulemaking in the *Pennsylvania Bulletin*. When proposed regulations are published in the *Pennsylvania Bulletin*, the *Pennsylvania Bulletin* version of the document is linked to the Department's Public Participation Center website under Proposals Open for Comment. All proposed rulemakings are subject to a comment period of at least 30 days. Comments on proposed regulations must be filed with the EQB as noted in the "Public Comments" section of the preamble. The Policy Office acknowledges receipt of the comments, transmits copies to the Committees and IRRC (in accordance with the five-day requirement in the Regulatory Review Act), and forwards copies to the program contact and program attorney. The Policy Office also

prepares a list of the names and addresses of all individuals who submitted comments during the public comment period and those presenting testimony at hearings. This list, referred to as the commentator list, is the basis for preparing the comment and response document to the final rulemaking and is sent to the Bureau Director following the close of the public comment period. The commentator list also indicates those commentators that submitted a one-page summary of their comments. As referenced in Section J of the proposed preamble (see Appendix M for an example of a proposed preamble), one-page commentary summaries submitted to the EQB during the public comment period are provided to the EQB as part of the final rulemaking package. The commentator list indicates those commentators, if any, which request a copy of the final rulemaking following EQB action. All commentators will receive a copy of the final rule when it is distributed to EQB. The Regulatory Review Act requires agencies to submit to IRRC and the Committees the names and addresses of commentators who have requested the text of the final-form regulation, which the agency intends to submit.

c) Public Meetings and Hearings – During the public comment period, public information meetings and/or public hearings may be held on proposed rulemakings. The Department conducts public information meetings for the purpose of explaining the proposed rulemaking and responding to questions. No formal record is made of these meetings. Public hearings are conducted by the EQB to accept comments on a proposed rulemaking. An EQB member or alternate chairs each hearing. An official record of the hearing is prepared by an independent stenographic reporting service. The Policy Office schedules these public meetings and EQB hearings, as well as the reporter. The program proposing the regulations is responsible for paying all expenses associated with public meetings and hearings, including locational costs, newspaper publication costs, stenographic services, etc.

d) Review by the Standing Committees and IRRC – Within 30 calendar days after the close of the public comment period, IRRC may submit formal comments, recommendations or objections on the proposed rulemaking. Typically, during their review period, IRRC will provide questions to the Regulatory Coordinator to gain clarification concerning the rulemaking. The Regulatory Coordinator will share these questions with the relevant program and regulatory counsel and work with them to provide a response to IRRC, including coordinating any meetings with IRRC and program staff, if necessary, concerning the rulemaking. The Senate and House Environmental Resources and Energy Committees have until the Department submits the final rulemaking to the Committees and IRRC to comment on proposed rulemakings to the Department. As with IRRC, if the Standing Committees provide questions to the Department or request a meeting to discuss the rulemaking, the Regulatory Coordinator will coordinate the Department's response. If IRRC and/or the Standing Committees submit formal comments to the Department on the rulemaking, they must be listed on the Commentator List and their comments must be addressed in the Comment and Response Document and the final Order.

VI. PROCEDURES FOR DEVELOPMENT AND APPROVAL OF FINAL RULEMAKINGS - *Standard Process*

A. Scheduling a Final Rulemaking for EQB Consideration

To add a final regulation to the EQB regulatory calendar, the Bureau Director must submit a written request to the Secretary through the Deputy Secretary and the Regulatory Coordinator requesting that the final regulation be added to the regulatory calendar. This request must be submitted to the Secretary at the conclusion of the public comment period. All final regulations should be submitted to the EQB within six months of the close of the public comment period. The request should include the information contained in Appendix E.

Following approval of the request by the Secretary, the Regulatory Coordinator will notify the Bureau Director, the Deputy Secretary, the Deputy Secretary for Field Operations (except for mining regulations), and the Bureau of Regulatory Counsel of the approval, and the final regulation will be added to the Regulatory Agenda. The Regulatory Agenda is available electronically on DEP's web site under the Public Participation Center and is updated on a continuing basis. In addition, the Six-Month Regulatory Agenda is published semiannually by the Governor's Office of Policy in February and July.

The Regulatory Review Act requires agencies to submit the final form of a regulation within two years of the close of the public comment period, or the regulation is considered to be withdrawn and would need to be re-proposed with a new public comment period.

B. Preparing a Final Rulemaking Package

Following the Secretary's approval to begin development of a regulation, program staff should prepare a concept paper for distribution to the Citizen's Advisory Council and the appropriate advisory committee. Approval should be obtained from the Deputy Secretary before distribution or discussion of the concept paper. Utilizing input from the advisory committee(s), program staff should develop the final rulemaking package with the assistance of the program's lead attorney from the Bureau of Regulatory Counsel and with input from the lead Regional Director.

Using the team approach in the development of regulations is strongly encouraged. Appropriate central and regional program, legal and policy staff should be involved early in the development of the final regulations so that each office has had the opportunity for input prior to when the package is submitted for senior management review. This early involvement will minimize review time, particularly for legal and policy staff. This procedure will ensure that all appropriate senior management reviews of regulations are completed before the final rulemaking is submitted to the EQB. The appropriate advisory committee, or Citizens Advisory Council should be given the opportunity to review the draft final rulemaking and the draft comment and response document prior to EQB consideration. The advisory committee's report or recommendations must accompany the final rulemaking when it is submitted to the Policy Office. RICK – would you double-check for me that the Ag. Board sees proposed regs only, not final. Thanks.

C. Contents of a Final Rulemaking Package

A final rulemaking package consists of the following documents:

1. **Cover Memorandum** – The cover memorandum serves as the official sign-off document for the final rulemaking to ensure that all senior management approvals are obtained before submittal to the Secretary. The cover memorandum should include the information and follow the form outlined in Appendix O.
2. **Executive Summary** – The executive summary is a one- or two-page summary of the final rulemaking prepared for the members of the EQB that identifies the following:
 - Title of the regulation.
 - Specify whether the regulation is new or an amendment to existing regulations.
 - Summary of the regulation.
 - Purpose of the regulation. (If companion federal regulations exist, note whether this proposal will be more stringent than the federal requirements.)
 - Who will be affected by this regulation?
 - If applicable, a description of the involvement of an advisory committee, Agricultural Advisory Committee or Citizens Advisory Committee that was involved in the development of the regulation (i.e. specify when the committee met to review the draft regulation, the comments or recommendations offered by the committee, etc.). **A letter from the advisory committee indicating its recommendation(s) must be attached to the Executive Summary.**
 - The deadline for adoption of the regulation, if applicable, including an explanation of the mandated deadline.
 - Specify when the proposed regulation was published in the *Pennsylvania Bulletin*, the length of the public comment period, and if any public meetings or hearings were held.
3. **Order** - The Order (referred to as the Preamble in a proposed rulemaking) is published in the *Pennsylvania Bulletin* as an explanation and justification for the regulation. The Order should be written in clear and concise language and describe in nontechnical terms the compelling public need the regulation is designed to address, what the regulation requires in legal and practical terms and who the regulation is likely to affect. The Order should be used by the Department to articulate how the regulation will improve environmental quality in the Commonwealth, including the improvement of public health, safety and welfare of the state's citizens. It should include the following sections:
 - Effective Date.
 - Contact Persons.
 - Statutory Authority.
 - Background of the Amendments.
 - * Summary of Changes to the Proposed Rulemaking.
 - * Summary of Comments and Responses on the Proposed Rulemaking. Please note, summaries of comments provided by IRRRC, the Standing Committees, and significant public comments received by the EQB

should be provided only. Summaries for *every* comment should not be included in the Order.

- Benefits, Costs and Compliance. (Appendix H includes guidelines for completing this section.) . In addition, the following language must be included for any regulations with jurisdiction over fees. "Costs to the Commonwealth - Within one year of adoption of the final rulemaking and every three years thereafter, the Department will evaluate the effectiveness of the regulation, including direct and indirect costs to the Commonwealth, and recommend any changes to the Board."
- Pollution Prevention (if applicable).
- Sunset Review.
- Regulatory Review.
- Findings of the Board.
- Order of the Board.

* Note that these sections can be combined if the majority of changes at final rulemaking are based on public comments.

The format for a final Order, including boilerplate language, is contained in Appendix P.

4. **Annex A - Regulation** - This is the actual text of the proposed regulation as it appeared in the *Pennsylvania Bulletin*, and includes changes made at final rulemaking. In addition, the annex should include the full text of all sections that are amended at both the proposed and final rulemaking stages since the LRB is required to publish the full text of these sections in the *Pennsylvania Bulletin*. Program staff must use the *Pennsylvania Bulletin* version of the proposed rulemaking as the basis when drafting the final rulemaking. This is necessary because editorial changes are made by the LRB when the proposed rulemaking is published, and these changes must be incorporated into the final rulemaking. *Pennsylvania Bulletin* text is available electronically at www.pabulletin.com. To include the full text of amended sections that were not included in the proposed rulemaking, program staff should access the *Pennsylvania Code* at www.pacode.com. Guidelines for the correct format of Annex A are listed in Appendix I.

5. **Comment and Response Document** - This document lists the commentators who submitted comments, both written and oral (at public hearings), during the official public comment period. Comments submitted by the Senate and House Environmental Resources and Energy Committees and IRRC, following the close of the public comment period and during their respective review periods, should also be included in this document. The document should summarize, not paraphrase, the comments and provide DEP (not EQB) responses. Paraphrasing should be avoided to minimize the potential for misinterpretation of the comments. All comments must be addressed and responded to. The comment and response document should consist of the following:

- a. A cover page with the title of the regulation.
- b. A list of the commentators and their addresses using the format of the commentator list prepared by the Policy Office. The Standing Committees and

IRRC should be added at the end of the list if they submitted any comments. The commentator list is available electronically from the Policy Office.

c. A summary of the comments and DEP responses categorized by subject matter (i.e., comments on the same issue should be grouped together).

Miscellaneous comments should follow the specific issues. Following each summarized comment, include the number of the commentator who submitted the comment, not the commentator by name or organization.

d. A copy of all one-page summaries that were submitted during the public comment period. These summaries are noted on the list of commentators prepared by the Policy Office.

The format of a comment and response document is included in Appendix Q.

6. **Regulatory Analysis Form** - This form includes 31 questions about the regulation and is included as Appendix J. This form is not submitted to the EQB, but is a public document and used by IRRC, the Standing Committees, the Office of General Counsel, the Governor's Policy Office and the Governor's Budget Office during their respective reviews of the regulation. The regulatory analysis form prepared for the proposed rulemaking must be updated and included in the final rulemaking package. In particular, questions 6, 16, and 27 must be revised. All questions and answers should be reviewed if significant changes were made to the proposed rulemaking. This form is available electronically from the Policy Office. To accurately describe the potential impact of the proposed regulation, development of the RAF with the assistance of the Department Economist is strongly encouraged.

7. **Fee Report Form** - (required only when a regulation establishes or revises a fee charged by the Commonwealth). The fee report form is used to justify new or revised fees. This form is included as Appendix K.

8. **Stream Reports** – (required only when a final regulation is developed pursuant to a stream redesignation petition).

D. Submission of Final Rulemaking Package to the Policy Office

Deadlines for submitting regulations to the Policy Office, with approval from the Deputy Secretary, are a minimum of 16 weeks prior to the meeting in which the EQB will consider the rulemaking package. These deadlines are established to enable required reviews as follows: Policy Office (3 weeks), Office of Chief Counsel (3 weeks), Special Deputy Secretary and briefing the Secretary (4 weeks), the Governor's Office of General Counsel, the Governor's Policy Office and the Governor's Budget Office (4 weeks), and Corrections/Copying and Preparation for EQB Mailing (2 weeks). Further, all EQB meeting agenda materials are posted on the EQB website and mailed to EQB members at least 2 weeks prior to the EQB meeting.

Three copies (one original and two copies) of the regulatory package must be received by the Policy Office, signed by the Deputy Secretary, by the deadline to be included on the agenda for a specific EQB meeting. Paper copies of regulations submitted to the Policy Office must be accompanied by an electronic version of each document in the regulatory package. Each

regulatory document must be saved separately on a 3 1/2" diskette or CD. A specific font is not required for the regulatory package; however, 12 pitch is recommended. Tables instead of tabs or indentations should also be used in each regulatory document.

E. Review by the Policy Office

The Policy Office reviews the final regulations for completeness, format, and substance. If significant changes are necessary, the regulatory package is returned to the Bureau Director for revisions. If the Policy Office recommends no revisions or minor revisions, the review process continues and the regulatory package is forwarded to the Office of Chief Counsel. Programs are encouraged to forward drafts of final rulemakings to the Regulatory Coordinator for review prior to the deadline to avoid delays in the event significant changes are necessary.

F. Review by the Office of Chief Counsel

The Office of Chief Counsel has a three-week period within which to review, approve and return the regulation package to the Policy Office. The Chief Counsel must approve the regulatory package following any revisions necessary as a result of the legal review. The regulatory package, when returned to the Policy Office, must be accompanied by a legal and policy memo addressed to the Secretary outlining any legal and/or policy issues associated with the regulation. Following Chief Counsel's approval, the Special Deputy Secretary reviews the final rulemaking.

G. Approval by Special Deputy and the Secretary

Following the Special Deputy Secretary's review and approval of the final rulemaking, the Regulatory Coordinator schedules a Regulatory Briefing with the Secretary to obtain the Secretary's approval of the regulation. The Regulatory Coordinator, Special Deputy Secretary, Policy Director, EQB Legal Counsel, Deputy Secretary, Bureau Director, and lead program staff are required to attend this briefing. Representatives from the Governor's Policy Office are also invited to attend this briefing.

H. Review by the Governor's Office of General Counsel, the Governor's Policy Office, and the Governor's Budget Office

After the Secretary approves the regulation, the Regulatory Coordinator forwards the final rulemaking package to the Office of General Counsel, the Governor's Policy Office, and the Governor's Budget Office for preliminary review. These oversight agencies may contact the Policy Office to seek clarification or request changes. The Policy Office will work with program and legal staff to resolve any concerns. The Bureau of Regulatory Counsel must respond to legal concerns raised by the Office of General Counsel. The Office of General Counsel and the Governor's Policy Office will notify the Policy Office when preliminary approval of the final rulemaking is obtained. The Office of General Counsel will grant formal approval following EQB action.

I. EQB Legislative Briefing

As the regulatory package is concurrently reviewed by the Office of General Counsel, the Governor's Policy Office and the Governor's Budget Office, the Regulatory Coordinator will schedule a Legislative Briefing on the final rulemaking package with the legislative members of the EQB. The Regulatory Coordinator, EQB Legal Counsel, Bureau Director, and lead program and legal staff are required to attend this briefing. The Department's Legislative Director is also invited to attend the briefing. The purpose of this briefing is to provide the EQB legislative members with an overview of the regulation and for Department staff to answer any questions posed by the EQB legislative members. All materials provided are marked as draft documents.

J. Review by the Environmental Quality Board and Notification to Commentators

Regulatory packages are mailed and sent electronically to the EQB members and alternates at least two weeks prior to each meeting. (Please note, the Cover Memo to the Secretary and the Regulatory Analysis Form are not included in the Regulatory Package that is distributed to the EQB). In addition to these distribution steps, the Regulatory Package is also posted on the Department's Public Participation Center website at <http://www.dep.state.pa.us> at least two weeks prior to the EQB meeting.

As with proposed rulemakings, the Deputy Secretary presents the final rulemaking to the EQB with the assistance of the Bureau Director and program counsel and responds to any concerns EQB members may have. The EQB takes formal action on each rulemaking. After the EQB meeting, the program must provide a copy of the Deputy's EQB presentation slides so that they can be added to the EQB website.

There are two steps that programs must follow in providing notification to commentators. The first step is to send a copy of the EQB meeting agenda and final rulemaking (specifically the Order, Annex A and comment/response document) to all commentators on the same day that the package is mailed to the EQB members for consideration. This step satisfies the Department's commitment to provide all commentators with a response as indicated in its policy on Public Participation in the Development of Regulations and Technical Guidance (012-1920-001).

The second step is a requirement of the Regulatory Review Act and occurs after EQB adoption of a final rulemaking. This step requires that agencies send a copy of the final-form rulemaking only to those commentators who request it at the time of submittal to the Committees and IRRC. The Policy Office maintains this information and records it on the commentator list. Since there is no deadline for commentators to make such requests, program staff should verify the accuracy of the commentator list with the Policy Office when finalizing the comment and response document. The Regulatory Review Act also requires that the comment and response document list those individuals who have made this request. A separate column indicating these individuals must appear in the commentator list attached to the comment and response document to satisfy this requirement.

K. Review by the Standing Committees and the Independent Regulatory Review Commission (IRRC)

Following approval by the EQB and formal approval by the Governor's Office of General Counsel, the Policy Office transmits the final rulemaking to IRRC and the Standing Committees. IRRC has no less than 30 days to take official action at a public meeting to either approve or disapprove the final rulemaking. The Standing Committees have at least 20 days from receipt of the final-form rulemaking, and up to 24 hours prior to the start of IRRC's public meeting, to convey to DEP and IRRC its approval, disapproval, or intent to review the rulemaking. The Policy Office coordinates any meetings IRRC or Committee staff may request concerning the final rulemaking.

L. Review by the Office of Attorney General

After IRRC approves the final rulemaking, the Policy Office submits it to the Office of Attorney General as the last step in the review process. The Office of Attorney General ~~must~~ generally issues an opinion as to form and legality of the regulation within 30 days ~~or the regulation is deemed approved~~. If the Office of Attorney General finds that the regulation is outside the promulgating agency's statutory authority, or is otherwise not in conformity with law, it conveys its concerns to the Office of General Counsel within the 30-day review period in a tolling memo. Issuance of a tolling memo suspends the 30-day review period until the Department satisfactorily responds to the concerns. The Policy Office coordinates the response to a tolling memo with the Bureau of Regulatory Counsel.

M. Publication in the *Pennsylvania Bulletin*

Following the Office of Attorney General's approval of the final regulation, the Governor's Office of General Counsel transmits it to the Legislative Reference Bureau (LRB) for publication in the *Pennsylvania Bulletin*. The LRB coordinates the publication date with the Policy Office, which provides the electronic version of the document to the LRB for publishing. Prior to publication of the rulemaking, the LRB will provide a copy of the draft publication for review and comment by DEP staff. The Regulatory Coordinator will inform the lead program contact and program attorney when the draft is expected to be received and when edits must be provided to be included in the final publication. The Regulatory Coordinator will communicate any revisions to the LRB.

The final regulation becomes effective upon publication in the *Pennsylvania Bulletin*, unless otherwise noted in the Order. Final regulations, when published in the *Pennsylvania Bulletin*, are linked to the Department's Public Participation Center website, under "*Regulations Recently Finalized*".

Approximately eight weeks following *Pennsylvania Bulletin* publication, the regulation will be codified in the *Pennsylvania Code*. The *Pennsylvania Bulletin* version of the rulemaking is the official version of the rulemaking until it is codified in the *Pennsylvania Code*. When regulations are codified, programs may purchase *Pennsylvania Code* pamphlets. These pamphlets contain official *Pennsylvania Code* text and may be ordered by chapter by contacting the Policy Office. The cost of the pamphlets is to be covered by the program. Programs may order single pamphlets that contain related chapters; however, approval must

be obtained by the program that has jurisdiction over the related chapters before the Policy Office will accommodate these requests. No minimum order is required, and the per-copy cost per pamphlet is the same regardless of the number of copies ordered. Single copies of pamphlets should be distributed free of charge to the public upon request.

VII - *Other Processes Available: (See Appendix __)* ALL THE TEXT FOR THESE PROCESSES WILL BE MOVED TO AN APPENDIX

- Advance Notice of Proposed Rulemaking
- Advance Notice of Final Rulemaking
- Final-Omitted Rulemaking

ARTICLE V. RADIOLOGICAL HEALTH

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| 228. | RADIATION SAFETY REQUIREMENTS FOR PARTICLE ACCELERATORS | 228.1 |
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| 235. | [Reserved] | 235.1 |
| 236. | LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL | 236.1 |
| 237. | REBUTTABLE PRESUMPTION OF LIABILITY OF THE OPERATOR OF THE REGIONAL LOW-LEVEL WASTE FACILITY | 237.1 |
| 240. | RADON CERTIFICATION | 240.1 |

Authority

The provisions of this Article V issued under section 301 of The Atomic Energy Development and Radiation Control Act (73 P. S. § 1301) (Repealed), unless otherwise noted.

Source

The provisions of this Article V adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212, unless otherwise noted.

215-1

(304401) No. 358 Sep. 04

Cross References

This article cited in 28 Pa. Code § 211.14 (relating to diagnostic services); and 55 Pa. Code § 1230.41 (relating to participation requirements).

CHAPTER 215. GENERAL PROVISIONS**GENERAL PROVISIONS**

- Sec.
215.1. Purpose and scope.
215.2. Definitions.
215.3. Units of exposure.
215.4. [Reserved].
215.5. Effect of incorporation of CFR.

RIGHTS AND RESPONSIBILITIES OF THE DEPARTMENT

- 215.11. Records.
215.12. Inspections and investigations.
215.13. Tests.
215.14. Availability of records for public inspection.
215.15. Additional requirements.

PROHIBITIONS AND RESTRICTIONS

- 215.21. Sale or installation of radiation sources.
215.22. Prohibited uses.
215.23. Penalties.
215.24. Human use.
215.25. Deliberate misconduct.
215.26. Employee protection.
215.27. Vacating premises.
215.28. Improper use of a monitoring device.

EXEMPTIONS

- 215.31. Granting exemptions.
215.32. Exemption qualifications.

COMMUNICATIONS

215.41. Address.

Authority

The provisions of this Chapter 215 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 215 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235, unless otherwise noted.

Cross References

The provisions of this chapter cited in 25 Pa. Code § 217.1 (relating to purpose and scope); 25 Pa. Code § 217.144 (relating to incidental radioactive material produced by a particle accelerator); 25 Pa. Code § 220.2 (relating to posting of notices to workers); 25 Pa. Code § 224.1 (relating to purpose and scope); 25 Pa. Code § 225.1 (relating to purpose and scope); 25 Pa. Code § 226.1 (relating to purpose and scope); and 25 Pa. Code § 232.1 (relating to purpose and scope).

GENERAL PROVISIONS**§ 215.1. Purpose and scope.**

(a) This article establishes requirements for the protection of public health and safety as related to radiation sources and implements the requirements of the act.

(b) This article, except as otherwise specifically provided in the act, applies to persons who use, manufacture, produce, transport, transfer, receive, acquire, possess, own or dispose of a radiation source.

(c) A person who, when required, fails to register or obtain a license for radiation sources in the possession or control of the person, shall comply with the act or with this article.

(d) This article does not apply to the extent the person is subject to regulation by the NRC.

(e) Title 10 Chapter I (Nuclear Regulatory Commission) Parts 19, 20, 30, 31, 32, 33, 34, 35, 36, 39, 40, 70, 71 and §§ 150.1, 150.2, 150.3, 150.11 and 150.20 of the CFR are incorporated by reference with the exceptions set forth in paragraphs (1)–(13). Notwithstanding the requirements incorporated by reference, nothing in this article relieves or limits a person from complying with the laws of the Commonwealth, including the act and the Low-Level Radioactive Waste Disposal Act (35 P. S. §§ 7130.101–7130.905).

(1) Sections 19.4, 19.5, 19.8, 19.30 and 19.40 are not incorporated.

(2) Sections 20.1006, 20.1009, 20.2206(a)(1), (3), (4) and (5), 20.2401 and 20.2402 are not incorporated.

(3) Sections 30.5, 30.6, 30.8, 30.21(c), 30.34(d) and (e)(1) and (3), 30.41(a)(6), 30.55, 30.63 and 30.64 are not incorporated.

(4) Sections 31.4 and 31.14 are not incorporated.

(5) Sections 32.8, 32.14, 32.15, 32.16, 32.18, 32.19, 32.20, 32.21, 32.22, 32.23, 32.25, 32.26, 32.27, 32.28, 32.29 and 32.40 are not incorporated.

(6) Sections 33.8, 33.21 and 33.23 are not incorporated.

(7) Sections 34.5, 34.8, 34.121 and 34.123 are not incorporated.

(8) Sections 35.8, 35.4001 and 35.4002 are not incorporated.

(9) Sections 36.5, 36.8, 36.91 and 36.93 are not incorporated.

(10) Sections 39.5, 39.8, 39.101 and 39.103 are not incorporated.

(11) Sections 40.6, 40.8, 40.12(b), 40.23, 40.27, 40.28, 40.31(k) and (i), 40.32(d), (e) and (g), 40.33, 40.38, 40.41(d), (e)(1) and (3) and (g), 40.51(b)(6), 40.64, 40.66, 40.67, 40.81 and 40.82 are not incorporated.

(12) Sections 70.1(c), (d) and (e), 70.5, 70.6, 70.8, 70.13, 70.13a, 70.20a, 70.20b, 70.21(a)(1), (c), (f), (g) and (h), 70.22(b), (c), (f), (g), (h), (i), (j), (k), (l), (m) and (n), 70.23(a)(6), (7), (8), (9), (10), (11) and (12) and (b), 70.23a, 70.24, 70.25(a), 70.31(c), (d) and (e), 70.32(a)(1), (4), (5), (6) and (7), 70.32(b)(1), (3) and (4), (c), (d), (e), (f), (g), (h), (i), (j) and (k), 70.37, 70.40, 70.42(b)(6), 70.44, 70.51(c), (d) and (e), 70.52, 70.53, 70.54, 70.55(c)(1), (2) and (3), 70.56(c) and (d), 70.57, 70.58, 70.59, 70.62, 70.71 and 70.72 are not incorporated.

(13) Sections 71.2, 71.6, 71.13(c) and (d), 71.24, 71.31, 71.33, 71.35, 71.37, 71.38, 71.39, 71.41, 71.43, 71.45, 71.51, 71.52, 71.53, 71.55, 71.59, 71.61, 71.63, 71.64, 71.65, 71.71, 71.73, 71.74, 71.75, 71.77, 71.99 and 71.100 are not incorporated.

(f) If a provision of the CFR incorporated by reference in this article includes a section which is inconsistent with this title, this title controls to the extent Federal law does not preempt Commonwealth law. If a provision of the CFR incorporated by reference in this article is beyond the scope of authority granted the Department under statute, or is in excess of the statutory authority, the provisions shall be and remain effective only to the extent authorized by the Pennsylvania law.

(g) Appropriate parts of 10 CFR (relating to energy) may be obtained from the following:

(1) The United States Government Printing Office, Book Store, Room 118, Federal Building, 1000 Liberty Avenue, Pittsburgh, Pennsylvania 15222, (412) 664-2721.

(2) The United States Government Printing Office, Book Store, 100 North 17th Street, Robert Morris Building, Philadelphia, Pennsylvania 19103, (215) 597-0677.

(3) The United States Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

(h) To reconcile differences between this chapter and the incorporated sections of Federal regulations and to effectuate their joint enforcement, the following words and phrases shall be substituted for the language of the Federal regulations:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to "byproduct material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 215.1 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282327) to (282329).

§ 215.2. Definitions.

The definitions in 10 CFR Chapter 1, Parts 19, 20, 30, 31, 32, 33, 34, 35, 36, 39, 40, 70, 71 and 150 are incorporated by reference in this article unless indicated otherwise. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

AEC—United States Atomic Energy Commission.

Accelerator-produced material—Material made radioactive by a particle accelerator.

Act—The Radiation Protection Act (35 P. S. §§ 7110.101—7110.703).

Bioassay—The determination of kinds, quantities or concentrations, and, in some cases, the locations of radioactive material in the human body, whether by direct measurement, in vivo counting, or by analysis and evaluation of materials excreted or removed from the human body. For purposes of this article, "radiobioassay" is an equivalent term.

Brachytherapy—A method of radiation therapy in which sealed sources are utilized to deliver a radiation dose at a distance of up to a few centimeters, by surface, intracavitary or interstitial application.

Entrance or access point—An opening through which an individual or extremity of an individual could gain access to radiation areas or to licensed or registered radiation sources. The term includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.

FDA—The Federal Food and Drug Administration.

Human use—The internal or external administration of radiation or radioactive material to human beings.

Inspection—An official examination or observation including, but not limited to, tests, surveys and monitoring to determine compliance with this article, rules, orders, requirements and conditions of the Department.

Ionizing radiation—Radiation consisting of directly ionizing charged particles—such as electrons, protons, alpha particles and the like—having sufficient kinetic energy to produce ionization by collision, or consisting of either indirectly ionizing uncharged particles—such as neutrons—or photons which can liberate directly ionizing particles or can initiate a nuclear transformation.

License—Permission issued by the Department in accordance with this article to possess and use radiation sources. Types of licenses are as follows:

(i) *General license*—Permission to possess and use radioactive material without the formal review and issuance of documents by the Department.

(ii) *Specific license*—Written permission to possess and use radioactive material issued by the Department after the Department reviews and approves an application for the possession and use of the radiation sources.

Licensed practitioner of the healing arts—An individual licensed by the Commonwealth to practice the healing arts, which for the purposes of this article shall be limited to medicine, surgery, dentistry, osteopathy, podiatry and chiropractic.

Licensee—A person who is licensed by the Department under this article and the act.

Licensing state—A state that has regulations equivalent to the Suggested State Regulations for Control of Radiation (United States Department of Health and Human Services) relating to, and has an effective program for, the regulatory control of NARM and which has been granted final designation as a licensing state by the Conference of Radiation Control Program Directors, Inc.

Major X-ray system component—A tube housing assembly, X-ray control, X-ray high voltage generator, X-ray table, cradle, film changer, fixed cassette holder, beam limiting device, fluoroscopic or digital radiographic imaging assembly, spot film device, image intensifier or cephalometric device.

NARM—A naturally occurring or accelerator-produced radioactive material. The term does not include by-product, source or special nuclear material.

NORM—Naturally occurring radioactive material—A nuclide which is radioactive in its natural physical state—that is, not man-made—but does not include source or special nuclear material.

NRC—United States Nuclear Regulatory Commission or its authorized representatives.

Person—An individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency or political subdivision of this Commonwealth; another state or political subdivision or agency thereof; and a legal successor, representative, agent or agency of the entities listed in this paragraph. The term does not include Federal government agencies.

Pharmacist—An individual licensed by the Commonwealth to compound and dispense drugs, prescriptions and poisons.

Physician—An individual licensed by the Commonwealth to practice medicine or osteopathy in this Commonwealth.

Prescribed dose for therapy using radiation-producing machines—For X-ray, electron or other particle beam therapy, the total dose and dose per fraction as documented in the written directive.

Qualified expert—

(i) For radiation protection, an individual having the knowledge and training to measure ionizing radiation, to evaluate safety techniques and to advise regarding radiation protection needs; for example: individuals certified in the appropriate field by the American Board of Radiology, or the American Board of Health Physics, or the American Board of Medical Physics or those having equivalent qualifications.

(ii) For radiation therapy calibrations, an individual having, in addition to the qualifications in subparagraph (i), training and experience in the clinical applications of radiation physics to radiation therapy.

(iii) For diagnostic X-ray performance evaluations, an individual having, in addition to the qualifications of subparagraph (i), training and experience in the physics of diagnostic radiology.

Radiation—Ionizing radiation.

Radiation producing machine—A device capable of producing ionizing radiation except those devices with radioactive material as the only source of radiation.

Radiation safety officer—An individual who has the knowledge and responsibility to apply appropriate radiation protection regulations.

Radiation source—An apparatus or material, other than a nuclear power reactor and nuclear fuel located on a plant site, emitting or capable of emitting ionizing radiation.

Radioactive material—A material—solid, liquid or gas—which emits radiation spontaneously.

Radioactivity—The transformation of unstable atomic nuclei accompanied by the emission of radiation.

Registrant—A person who is legally obligated to register with the Department under this article and the act.

Registration—The act of registering with the Department under this article.

Roentgen (R)—The special unit of exposure to external X-ray and gamma radiation. One roentgen equals 2.58×10^{-4} coulombs/kilogram of air. See § 215.3 (relating to units of exposure).

Traceable to a National standard—A system which has been calibrated by the National Institute of Science and Technology or by a Regional Calibration Laboratory accredited by the American Association of Physicists in Medicine.

Waste handling licensees—Persons licensed to receive and store radioactive wastes prior to disposal or persons licensed to dispose of radioactive waste.

Written directive for therapy using radiation-producing machines—An order in writing for a specific patient, dated and signed by an authorized user prior to the administration of a radiation therapy treatment:

(i) For X-ray therapy at potentials less than 1 MeV: the total dose, dose per fraction, treatment site, field sizes, tube potential and filtration, and overall treatment period.

(ii) For X-ray, electron or other particle beam therapy at energies of 1 MeV and above: the total dose, dose per fraction, treatment site, field size, beam type and energy, applicator, use of beam blocking or shaping devices, treatment geometry and overall treatment period.

Source

The provisions of this § 215.2 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282329) to (282332).

Cross References

This section cited in 25 Pa. Code § 221.201 (relating to definitions); and 25 Pa. Code § 236.2 (relating to definitions).

§ 215.3. Units of exposure.

As used in this article, the unit of exposure to external X-ray and gamma radiation expressed in standard international (SI) units is the coulomb per kilogram (C/kg) of air. This represents the quotient of dQ by dm where “ dQ ” is the absolute value of the total charge of the ions of one sign produced in air when all the electrons (negatrons and positrons) liberated by photons in a volume element of air having mass “ dm ” are completely stopped in air. The “roentgen” is a special unit of exposure. One roentgen is equal to 2.58×10^{-4} coulomb per kilogram of air. One milliroentgen (mR) is equal to 1/1000 roentgen.

Source

The provisions of this § 215.3 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249207) to (249208) and (203799).

Cross References

This section cited in 25 Pa. Code § 215.2 (relating to definitions).

§ 215.4. [Reserved].**Source**

The provisions of this § 215.4 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203799).

§ 215.5. Effect of Incorporation of the CFR.

(a) *Title and name changes.* To reconcile differences between this chapter and the incorporated sections of Federal regulations and to effectuate their joint enforcement, the following words and phrases shall be substituted for the language of the Federal regulations as follows:

(1) A reference to "NRC" or "Commission" means Department.

(2) A reference to "NRC or agreement state" means "Department, NRC or agreement state."

(b) *Forms and documents.* References to forms in the Federal regulations incorporated by reference will be replaced by the appropriate forms prescribed by the Department.

(c) *Notifications, reports and correspondence.* Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 215.5 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

RIGHTS AND RESPONSIBILITIES OF THE DEPARTMENT**§ 215.11. Records.**

(a) Registrants shall maintain records showing the receipt, transfer and disposal of radiation producing machines.

(b) Licensees shall maintain records showing the receipt, transfer and disposal of radioactive material as described in 10 CFR 30.51 (relating to records).

Source

The provisions of this § 215.11 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203799).

§ 215.12. Inspections and investigations.

(a) *Maintenance of records.* Licensees and registrants shall maintain records under this article and have these records available for inspection by the Department at permanent sites or facilities of use identified in a license or registration issued under this article.

(b) *Rights of the Department.* The Department and its agents and employees will:

(1) Have access to, and require the production of, books, papers, documents and other records and physical evidence pertinent to a matter under investigation.

(2) Require a registrant or licensee to make reports and furnish information as the Department may prescribe.

(3) Enter the premises of a licensee or registrant for the purpose of making an investigation or inspection of radiation sources and the premises and facilities where radiation sources are used or stored, necessary to ascertain the compliance or noncompliance with the act and this chapter and to protect health, safety and the environment.

(c) *Inspections and investigations by the Department.* The Department, its employees and agents may conduct inspections and investigations of the facilities and regulated activities of registrants of radiation-producing machines and licensees of radioactive material necessary to demonstrate compliance with the act or this article.

(d) *Additional inspections and investigations.* The Department, its employees and agents may conduct additional follow-up inspections and investigations if violations of the act or regulations promulgated thereunder were noted at the time of the original inspection, or if a person presents information, or circumstances arise which give the Department reason to believe that the health and safety of a person is threatened or that the act or this article are being violated.

Source

The provisions of this § 215.12 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282334).

§ 215.13. Tests.

Licensees and registrants, upon instruction from the Department, shall perform, or permit the Department to perform, reasonable tests as the Department deems appropriate or necessary including, but not limited to, tests of:

- (1) Radiation sources.
- (2) Facilities in which radiation sources are used or stored.
- (3) Radiation detection and monitoring instruments.
- (4) Other equipment and devices in connection with utilization or storage of licensed or registered radiation sources.

§ 215.14. Availability of records for public inspection.

The following Department records are not available for public inspection, unless the Department determines that disclosure is in the public interest and is necessary for the Department to carry out its duties under the act:

- (1) Trade secrets or secret industrial processes customarily held in confidence.
- (2) A report of investigation, not pertaining to safety and health in industrial plants, which would disclose the institution, progress or results of an investigation undertaken by the Department.
- (3) Personnel, medical and similar files, the disclosure of which would operate to the prejudice or impairment of a person's reputation or personal safety.

Source

The provisions of this § 215.14 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282335).

§ 215.15. Additional requirements

The Department may impose upon a person requirements additional to those established in this article which it may deem reasonable and necessary to protect the public health and safety. As an example, when necessary or desirable to determine the extent of an individual's exposure to concentrations of radioactive material, the Department may require a licensee to provide to the individual appropriate bioassay services, medical services and the services of a qualified expert and to furnish a copy of the reports of these services to the Department.

Source

The provisions of this § 215.15 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203801).

PROHIBITIONS AND RESTRICTIONS

§ 215.21. Sale or installation of radiation sources.

No person may sell or install within this Commonwealth a radiation source which does not meet the requirements of this article.

§ 215.22. Prohibited uses.

(a) No person may operate or maintain within this Commonwealth fitting devices or machines which use fluoroscopic, X-ray or radiation principles for the purpose of selling footwear through commercial outlets.

(b) Hand-held fluoroscopic screens may not be used.

§ 215.23. Penalties.

A person who violates this article is subject to the civil and criminal penalties in the act.

§ 215.24. Human use.

(a) No human use of radiation sources may be permitted except under this article, and the following:

- (1) Medical Practice Act of 1985 (63 P. S. §§ 422.1—422.45).
- (2) The Osteopathic Medical Practice Act (63 P. S. §§ 271.1—271.18).
- (3) The Chiropractic Registration Act of 1951 (63 P. S. §§ 601—624).
- (4) The Dental Law (63 P. S. §§ 120—130g).
- (5) The Podiatry Practice Act (63 P. S. §§ 42.1—42.21c).

(b) Auxiliary personnel employed by a licensed practitioner of the healing arts at the location at which the licensed practitioner practices may use radiation sources in the healing arts provided those individuals comply with the applicable requirements of 49 Pa. Code Part I, Subpart A (relating to professional and occupational affairs), located in the following chapters:

- (1) Chapter 5 (relating to the State Board of Chiropractic).
- (2) Chapter 16 (relating to the State Board of Medicine—general provisions).
- (3) Chapter 17 (relating to the State Board of Medicine—medical doctors).
- (4) Chapter 18 (relating to the State Board of Medicine—practitioners other than medical doctors).
- (5) Chapter 25 (relating to the State Board of Osteopathic Medicine).
- (6) Chapter 29 (relating to the State Board of Podiatry).
- (7) Chapter 33 (relating to the State Board of Dentistry).

(c) Auxiliary personnel employed by a health care facility regulated by the Department of Health, the Department of Public Welfare or the Federal government may only use radiation sources in the healing arts in accordance with written job descriptions and employee qualifications.

(d) Subsections (b) and (c) notwithstanding, human use of radiation sources is permitted by individuals enrolled in clinical training programs that satisfy the related accreditation requirements of the boards in subsection (b) and who are under the supervision of a licensed practitioner of the healing arts or of auxiliary personnel authorized under subsections (b) and (c) to use radiation sources in the healing arts.

Source

The provisions of this § 215.24 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282336).

§ 215.25. Deliberate misconduct.

The requirements under 10 CFR 30.10 (relating to deliberate misconduct) are incorporated by reference. This requirement also applies to registrants.

Source

The provisions of this § 215.25 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 215.26. Employee protection.

The requirements under 10 CFR 30.7 (relating to employee protection) are incorporated by reference. This requirement also applies to registrants.

Source

The provisions of this § 215.26 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 215.27. Vacating premises.

In addition to the decommissioning requirements of 10 CFR 30.36 (relating to expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas) that are incorporated by reference under Chapter 217 (relating to licensing of radioactive material), a licensee shall notify the Department in writing of intent to vacate at least 30 days before vacating or relinquishing possession or control of premises which may have been contaminated with radioactive material as a result of the licensee's activities. When deemed necessary by the Department, the licensee shall decontaminate the premises as the Department may specify.

Source

The provisions of this § 215.27 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 215.28. Improper use of a monitoring device.

The deliberate exposure of, failure to use, or improper use of, an individual monitoring device or area monitoring device by an individual is prohibited.

Source

The provisions of this § 215.28 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282337).

EXEMPTIONS**§ 215.31. Granting exemptions.**

The Department may, upon application therefor or upon its own initiative, grant exemptions from this article when the Department determines that they do not result in significant risk to the health and safety of the public and safeguards that provide equivalent levels of protection in this article are implemented.

§ 215.32. Exemption qualifications.

The following sources, uses and types of users are exempt from Chapters 216—221, 223—228, 230, 232 and 240:

(1) A United States Department of Energy contractor or subcontractor and an NRC contractor or subcontractor of the following categories operating within this Commonwealth to the extent that the contractor or subcontractor under contract receives, possesses, uses, transfers, owns or acquires radiation sources:

(i) Prime contractors performing work for the United States Department of Energy at United States Government-owned or controlled sites, including the transportation of radiation sources to or from the sites and the performance of contract services during temporary interruptions of the transportation.

(ii) Prime contractors of the United States Department of Energy performing research in, or development, manufacture, storage, testing or transportation of, nuclear weapons or components thereof.

(iii) Prime contractors of the United States Department of Energy using or operating nuclear reactors or other nuclear devices in a United States Government owned vehicle or vessel.

(iv) Other prime contractors or subcontractors of the United States Department of Energy or of the NRC if the Commonwealth and the NRC jointly determine that, under the terms of the contract or subcontract, there is adequate assurance that the work thereunder can be accomplished without undue risk to the public health and safety and that the exemption of the contractor or subcontractor is otherwise appropriate.

(2) Federal government agencies.

(3) Electrical equipment that produces radiation incidental to its operation for other purposes if the dose equivalent rate averaged over an area of 10 square centimeters does not exceed .5 mrem (.005 mSv) per hour at 5 centimeters from an accessible surface. The equipment is not exempt when operated without adequate shielding during testing and servicing if radiation levels exceed those specified. Electron beam welders and electron microscopes are not exempt.

(4) Radiation-producing machines in transit or in storage incident thereto.

(5) A material, product or use specifically exempted from licensing requirements by the NRC, the Department or an agreement state or authorized for distribution to persons exempt from license requirements.

Source

The provisions of this § 215.32 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282337) to (282338).

COMMUNICATIONS**§ 215.41. Address.**

Communications and reports concerning this article and applications filed under it shall be addressed to the Bureau of Radiation Protection, Department of Environmental Protection, Post Office Box 8469, Harrisburg, Pennsylvania 17105-8469.

Source

The provisionis of this § 215.41 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial page (123511).

Cross References

This section cited in 25 Pa. Code § 230.5 (relating to communications).

[Next page is 216-1.]

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**CHAPTER 216. REGISTRATION OF
RADIATION-PRODUCING MACHINES AND RADIATION-
PRODUCING MACHINE SERVICE PROVIDERS**

| | |
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| Sec. | |
| 216.1. | Purpose and scope. |
| 216.2. | Registration of radiation-producing machines. |
| 216.2a. | Registration of radiation-producing machine service providers. |
| 216.2b. | Reporting and recordkeeping requirements for registered radiation-producing machine service providers. |
| 216.3. | Exemptions. |
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| 216.5. | Approval not implied. |
| 216.6. | Transfer and disposal obligations. |
| 216.7. | Out-of-State radiation-producing machines. |

Authority

The provisions of this Chapter 216 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 216 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 218.1 (relating to purpose and scope); and 25 Pa. Code § 220.1 (relating to purpose and scope).

§ 216.1. Purpose and scope.

(a) This chapter establishes requirements for the registration of radiation-producing machines and radiation-producing machine service providers. A person who possesses a radiation-producing machine or provides services described in this chapter shall comply with this chapter.

(b) A person possessing an accelerator as defined in § 228.2 (relating to definitions) is exempt from the requirements of § 216.2 (relating to registration of radiation-producing machines). Accelerators are licensed under Chapter 228 (relating to radiation safety requirements for particle accelerators) and license fees are specified in § 218.11(d) (relating to registration, renewal of registration and license fees).

Authority

The provisions of this § 216.1 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.1 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282339).

§ 216.2. Registration of radiation-producing machines.

(a) A person possessing a radiation-producing machine shall:

(1) Register with the Department within 30 days after acquisition. Registration shall be completed on forms furnished by the Department and shall contain information required on the form and accompanying instructions.

(2) Designate on the registration form an individual to be responsible for radiation protection.

(3) Notify the Department in writing within 30 days of a change of address, owner or radiation safety officer or number of machines.

(b) The registration becomes valid upon receipt of the properly completed registration form and the fee required under Chapter 218 (relating to fees).

(c) A certificate of registration will be issued by the Department to a person whose registration becomes valid under subsection (b).

(d) A registrant shall have the currently valid certificate of registration available for inspection by the Department.

(e) A certificate of registration issued under this chapter may not be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, to any person without submitting a written request by the registrant to the Department.

Authority

The provisions of this § 216.2 amended under sections 301, 302 and 401 of the Radiation Protection Act (35 P. S. §§ 7110.301, 7110.302 and 7110.401); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.2 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended January 1, 1988, effective January 2, 1988, 18 Pa.B. 11; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282339) to (282340).

Cross References

This section cited in 25 Pa. Code § 216.1 (relating to purpose and scope); 25 Pa. Code § 216.4a (relating to expiration and termination of certificates of registration); 25 Pa. Code § 216.7 (relating to out-of-State radiation-producing machines); and 25 Pa. Code § 218.11 (relating to registration, renewal of registration and license fees).

§ 216.2a. Registration of radiation-producing machine service providers.

After July 17, 2004, a person who engages in the business of assembling or installing radiation-producing machines or who offers to assemble or install

radiation-producing machines or who is in the business of furnishing or offering to furnish radiation-producing machine servicing or services or who is in the business of selling, leasing or lending radiation-producing machines in this Commonwealth shall apply for registration of the activities with the Department prior to furnishing or offering to furnish those services.

(1) Registration is for 12 months and is renewable.

(2) An application for registration or renewal will not be accepted unless accompanied by the appropriate fee specified in § 218.11(h) (relating to registration, renewal of registration and license fees). Fees are not refundable after issuance of a registration.

(3) An application for registration shall be submitted on forms provided by the Department. The Department will issue a certificate of registration for radiation-producing machine services to the applicant when the application is complete, contains all the information required by the Department and when the appropriate fee specified in § 218.11(h) has been paid.

(4) A person who, on July 17, 2004, is currently in the business of providing radiation-producing machine services shall apply for registration by September 15, 2004.

Authority

The provisions of this § 216.2a issued under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 216.2a adopted July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823.

Cross References

This section cited in 25 Pa. Code § 216.3 (relating to exemptions); and 25 Pa. Code 216.4a (relating to expiration and termination of certificates of registration).

§ 216.2b. Reporting and recordkeeping requirements for registered radiation-producing machine service providers.

(a) A radiation-producing machine service provider who installs, services, sells, leases or otherwise transfers a radiation producing-machine or major X-ray system component in this Commonwealth shall submit information to the Department and maintain records as described in this section.

(1) The following information shall be submitted in writing to the Department within 15 days of the action:

- (i) The date of installation, service or transfer.
- (ii) The name, address, telephone number and registration number, if registered, of the client facility.

(iii) The type of radiation-producing machine, the manufacturer's name, model number and control panel serial number of each radiation-producing machine, or major X-ray system components involved in the transaction.

(iv) A contact name of the individual for the service action.

(2) A copy of the assembler's report on United States Food and Drug Administration (FDA) Form 2579, prepared in compliance with the Federal diagnostic X-ray standard (21 CFR 1020.30(d)(1) (relating to diagnostic x-ray systems and their major components)), when completed in full and submitted to the Department within 15 days following the service, satisfies the requirements of paragraph (1) and subsection (d) for services provided under the assembler's report.

(b) Services performed under preventative maintenance that do not involve replacement or refurbishing of major X-ray system components are exempt from the reporting requirements specified in this section except subsection (d).

(c) A radiation-producing machine service provider shall maintain a log or other record of radiation-producing machines installed or serviced in this Commonwealth. The record shall be maintained for 5 years for inspection by the Department and shall list the following information:

(1) The date the machine was installed or service provided.

(2) The name of the customer, address, telephone number and customer's State registration number.

(3) The type of radiation-producing machine, the manufacturer's name, model number and control panel serial number of each radiation-producing machine or major X-ray system component involved.

(4) The name of the individual performing the service.

(d) A radiation-producing machine service provider who services a radiation-producing machine in a radiation installation in this Commonwealth that is not registered shall report the service to the Department. The report shall be submitted in writing within 15 days after the services and contain the following information:

(1) The date service was provided.

(2) The name, address and telephone number of the client.

(3) The type of radiation-producing machine, the manufacturer's name, model number and control panel serial number of each radiation-producing machine or major X-ray system component.

(4) The name of the individual performing the service.

Authority

The provisions of this § 216.2b issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.2b adopted July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823.

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Cross References

This section cited in 25 Pa. Code § 216.6 (relating to transfer and disposal obligations).

§ 216.3. Exemptions.

The following radiation-producing machines or equipment are exempt from registration:

(1) Electrical equipment that produces radiation incidental to its operation for other purposes, if the dose equivalent rate averaged over an area of 10 square centimeters does not exceed .5 mrem (.005 mSv) per hour at 5 centimeter from an accessible surface. The production, testing or factory servicing of the equipment are not exempt. Electron beam welders and electron microscopes are not exempt.

(2) Radiation-producing machines while in transit in the possession of a transport carrier.

(3) Radiation-producing machines in the possession of vendors, installers or persons engaged in the service or repair of the machines, if applicable persons who have these machines register their activities with the Department under § 216.6 (relating to transfer and disposal obligations).

(4) Accelerators are exempt from registration. Accelerators shall be licensed under Chapter 228 (relating to radiation safety requirements for particle accelerators). Accelerator service providers are not exempt from registration of services under § 216.2a (relating to registration of radiation-producing machine service providers).

Authority

The provisions of this § 216.3 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.3 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282340).

§ 216.4. Renewal of certificate of registration.

(a) The Department will send an application for renewal of the certificate of registration to the registrant at least 2 months prior to the expiration date on the certificate of registration. The application for renewal will include references to the fee due under § 218.11 (relating to registration, renewal of registration and license fees).

(b) An applicant for renewal of a registration shall submit a signed application and the fee required under § 218.11 prior to the expiration date of the certificate of registration.

(c) The renewal becomes valid upon receipt of the properly completed application and the fee required under Chapter 218 (relating to fees).

Authority

The provisions of this § 216.4 amended under sections 301, 302 and 401 of the Radiation Protection Act (35 P. S. §§ 7110.301, 7110.302 and 7110.401); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.4 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended December 31, 1987, effective January 2, 1988, 18 Pa.B. 11; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (203806).

Cross References

This section cited in 25 Pa. Code § 216.4a (relating to expiration and termination of certificates of registration); and 25 Pa. Code § 218.11 (relating to registration, renewal of registration and license fees).

§ 216.4a. Expiration and termination of certificates of registration.

(a) A certificate of registration expires on the date specified on the certificate of registration. Expiration of the certificate of registration does not relieve the registrant from the requirements of this article.

(b) When a registrant decides to terminate all activities involving radiation-producing machines under the certificate of registration, the registrant shall notify the Department immediately, in writing, and request termination of the certificate of registration. This notification and request for termination of the certificate of registration shall be in accordance with subsection (c).

(c) If a registrant does not submit a renewal for a certificate of registration under § 216.4 (relating to renewal of certificate of registration), the registrant shall, on or before the expiration date specified in the certificate of registration, do the following:

(1) Terminate use of all radiation-producing machines subject to registration under § 216.2 (relating to registration of radiation-producing machines) or cease all radiation-producing machine services subject to registration under § 216.2a (relating to registration of radiation-producing machine service providers).

(2) Transfer or dispose of all radiation-producing machines subject to registration under § 216.2 in accordance with § 216.6 (relating to transfer and disposal obligations).

(3) Remit any outstanding registration or renewal of registration fees owed to the Department under § 218.11 (relating to registration, renewal of registration and license fees).

(4) Request termination of the certificate of registration in writing to the Department.

Authority

The provisions of this § 216.4a issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.4a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (249211) to (249212).

§ 216.5. Approval not implied.

No person, in an advertisement, may refer to the fact that radiation-producing machines are registered by the Department nor state that an activity under the registration has been approved by the Department.

Source

The provisions of this § 216.5 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235.

§ 216.6. Transfer and disposal obligations.

(a) A person, distributor, retailer or other agent who, by selling, leasing, lending or gifting, transfers possession of radiation-producing machines or major X-ray system components in this Commonwealth that are not otherwise reported under § 216.2b (relating to reporting and recordkeeping requirements for registered radiation-producing machine service providers), shall notify the Department within 30 days of the following information:

- (1) The name and address of persons who have received the machines or components.
- (2) The manufacturer, model and serial number of a machine or component transferred.
- (3) The date of transfer of a radiation-producing machine or major X-ray system component.

(b) A person who disposes of a radiation-producing machine shall notify the Department within 15 days of the method of disposal used.

Authority

The provisions of this § 216.6 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.6 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (249212) and (282341).

Cross References

This section cited in 25 Pa. Code § 216.3 (relating to exemptions); and 25 Pa. Code § 216.4a (relating to expiration and termination of certificates of registration).

§ 216.7. Out-of-State radiation-producing machines.

(a) If a radiation-producing machine is brought into this Commonwealth for temporary use, the person proposing to do so or an authorized agent shall give written notice to the Department at least 2 working days before the machine enters this Commonwealth. The notice shall include the type of machine, the nature, duration and scope of use and the exact location where the machine is to be used. In addition, the person shall:

(1) Comply with this title.

(2) Supply the Department with other information as the Department may reasonably request.

(3) Not operate within this Commonwealth on a temporary basis in excess of 60 calendar days per year.

(b) If for a specific case, the 2-working-day period would impose an undue hardship, the person, upon application to the Department, may receive a waiver of this requirement.

(c) When a radiation-producing machine is brought into this Commonwealth for temporary use exceeding 60 days per year, a person possessing the machine shall register with the Department under § 216.2 (relating to registration of radiation-producing machines) within 15 days after the 60th day.

Authority

The provisions of this § 216.7 amended under sections 301, 302 and 401 of the Radiation Protection Act (35 P. S. §§ 7110.301, 7110.302 and 7110.401); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 216.7 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended December 31, 1987, effective January 2, 1988, 18 Pa.B. 11; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial page (282341).

Cross References

This section cited in 25 Pa. Code § 225.5a (relating to reciprocity).

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CHAPTER 217. LICENSING OF RADIOACTIVE MATERIAL

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Authority

The provisions of this Chapter 217 issued under section 302 of the Radiation Protection Act (35 P.S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20); amended under the Radiation Protection Act (35 P.S. §§ 7110.101—7110.703); and the Low-Level Radioactive Waste Disposal Act (35 P.S. §§ 7130.101—7130.905); amended under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 217 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.27 (relating to vacating premises); 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 218.1 (relating to purpose and scope); 25 Pa. Code § 220.1 (relating to purpose and scope); 25 Pa. Code § 224.1 (relating to purpose and scope); 25 Pa. Code § 225.1 (relating to purpose and scope); 25 Pa. Code § 226.1 (relating to purpose and scope); 25 Pa. Code § 228.37 (relating to production of radioactive material); and 25 Pa. Code § 232.1 (relating to purpose and scope).

Subchapter A. GENERAL

| | |
|--------|-----------------------------|
| Sec. | |
| 217.1. | Purpose and scope. |
| 217.2. | Address for communications. |

§ 217.1. Purpose and scope.

(a) This chapter establishes requirements for the licensing of radioactive material. Persons who use radioactive material shall comply with this chapter. A person may not receive, possess, use, transfer, own or acquire radioactive material except as authorized in a specific or general license issued under this chapter or otherwise provided in this chapter.

(b) A licensee is subject to Chapters 215, 218—220 and 230. A licensee engaged in industrial uses and radiographic operations is subject to Chapter 225 (relating to radiation safety requirements for industrial radiographic operations). A licensee using radioactive material for human use is subject to Chapter 224 (relating to medical use of radioactive material). A licensee using sealed sources in well logging is subject to Chapter 226 (relating to licenses and radiation safety requirements for well logging). A licensee using sealed sources in irradiators is subject to Chapter 232 (relating to licenses and radiation safety requirements for irradiators). A licensee for the disposal of low-level radioactive wastes received from other persons is subject to Chapter 236 (relating to low-level radioactive waste management and disposal).

(c) The use of radioactive material in this Commonwealth under a license issued by the NRC is exempt from the licensing requirements of this chapter until the Commonwealth becomes an agreement state on the date published in the *Federal Register*.

Source

The provisions of this § 217.1 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203809) to (203810).

§ 217.2. Address for communications.

An application for a license, license renewal and license amendments and other communications under this chapter shall be addressed to the Bureau of Radiation Protection, Department of Environmental Protection, Post Office Box 8469, Harrisburg, Pennsylvania 17105-8469.

Source

The provisions of this § 217.2 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203810).

Subchapter B. GENERAL PROVISIONS FOR RADIOACTIVE MATERIAL

| | |
|--------------------|-------------|
| Sec. | |
| 217.11—217.18. | [Reserved]. |
| 217.21—217.24. | [Reserved]. |
| 217.31 and 217.32. | [Reserved]. |
| 217.41—217.44. | [Reserved]. |
| 217.45. | [Reserved]. |
| 217.46—217.48. | [Reserved]. |
| 217.49. | [Reserved]. |
| 217.51. | [Reserved]. |
| 217.52. | [Reserved]. |

| | |
|------------------|---|
| 217.53—217.56. | [Reserved]. |
| 217.57. | [Reserved]. |
| 217.61—217.64. | [Reserved]. |
| 217.65. | [Reserved]. |
| 217.71—217.73. | [Reserved]. |
| 217.74. | [Reserved]. |
| 217.81—217.83. | [Reserved]. |
| 217.84. | [Reserved]. |
| 217.85—217.87. | [Reserved]. |
| 217.88. | [Reserved]. |
| 217.89. | [Reserved]. |
| 217.90—217.92. | [Reserved]. |
| 217.93. | [Reserved]. |
| 217.101. | [Reserved]. |
| 217.111—217.114. | [Reserved]. |
| 217.121. | [Reserved]. |
| 217.122. | [Reserved]. |
| 217.131. | Incorporation by reference. |
| 217.132. | Effect of incorporation of 10 CFR Part 30. |
| 217.133. | Persons possessing a license for source, byproduct or special nuclear material in quantities not sufficient to form a critical mass on the date the Commonwealth becomes an agreement state as published in the <i>Federal Register</i> . |
| 217.134. | Filing application for specific licenses. |
| 217.135. | Renewal of licenses. |
| 217.136. | Exempt concentrations. |
| 217.137. | Exempt quantities. |

Cross References

This subchapter cited in 25 Pa. Code § 217.153 (relating to licensing the incorporation of NARM into gas and aerosol detectors); and 25 Pa. Code § 217.203 (relating to reciprocity of licenses of naturally occurring and accelerator-produced radioactive material).

§§ 217.11—217.18. [Reserved].

Source

The provisions of these §§ 217.11—217.18 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203810) to (203817).

§§ 217.21—217.24. [Reserved].

Source

The provisions of these §§ 217.21—217.24 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203819) to (203821).

§§ 217.31 and 217.32. [Reserved].**Source**

The provisions of these §§ 217.31 and 217.32 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203821) to (203823).

§§ 217.41—217.44. [Reserved].**Source**

The provisions of these §§ 217.41—217.44 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5206; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203823) to (203828).

§ 217.45. [Reserved].**Source**

The provisions of this § 217.45 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203829) to (203830).

§§ 217.46—217.48. [Reserved].**Source**

The provisions of these § 217.46—217.48 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203830) to (203832) and (249215) to (249216).

§ 217.49. [Reserved].**Source**

The provisions of this § 217.49 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (249216).

§ 217.51. [Reserved].**Source**

The provisions of this § 217.51 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended December 31, 1987, effective January 2, 1988, 18 Pa.B. 11; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (249217).

§ 217.52. [Reserved].**Source**

The provisions of this § 217.52 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249217) to (249218).

§§ 217.53—217.56. [Reserved].**Source**

The provisions of these §§ 217.53—217.56 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249218) to (249221).

§ 217.57. [Reserved].**Source**

The provisions of this § 217.57 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (249221).

§§ 217.61—217.64. [Reserved].**Source**

The provisions of these § 217.61—217.64 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial pages (123549) to (123556).

§ 217.65. [Reserved].**Source**

The provisions of this § 217.65 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249222) to (249233).

§§ 217.71—217.73. [Reserved].**Source**

The provisions of these § 217.71—217.73 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249223) to (249226).

§ 217.74. [Reserved].**Source**

The provisions of this § 217.74 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (249226).

§§ 217.81—217.83. [Reserved].**Source**

The provisions of these §§ 217.81—217.83 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249226) to (249230).

§ 217.84. [Reserved].**Source**

The provisions of this § 217.84 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249230) to (249234).

§§ 217.85—217.87. [Reserved].**Source**

The provisions of these §§ 217.85—217.87 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249234) to (249235).

§ 217.88. [Reserved].**Source**

The provisions of this § 217.88 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249235) to (249237).

§ 217.89. [Reserved].**Source**

The provisions of this § 217.89 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249237) to (249238).

§§ 217.90—217.92. [Reserved].**Source**

The provisions of these §§ 217.90—217.92 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249238) to (249242).

§ 217.93. [Reserved].**Source**

The provisions of this § 217.93 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249242) to (249244).

§ 217.101. [Reserved].**Source**

The provisions of this § 217.101 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5206; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203863) to (203864).

§§ 217.111—217.114. [Reserved].**Source**

The provisions of these §§ 217.111—217.114 reserved November 17, 1995, effective November 18, 1995, 25 Pa.B. 5206. Immediately preceding text appears at serial pages (170357) to (170360).

§ 217.121. [Reserved].**Source**

The provisions of this § 217.121 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203864) to (203866).

§ 217.122. [Reserved].**Source**

The provisions of this § 217.122 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended December 31, 1987, effective January 2, 1988, 18 Pa.B. 11; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203866) to (203867).

§ 217.131. Incorporation by reference.

(a) Except as provided in this subchapter, the requirements of 10 CFR Part 30 (relating to rules of general applicability to domestic licensing of byproduct material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 30.5, 30.6, 30.8, 30.21(c), 30.34(d), (e)(1) and (3), 30.41(a)(6), 30.55, 30.63 and 30.64 are not incorporated by reference.

Source

The provisions of this § 217.131 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 217.132. Effect of incorporation of 10 CFR Part 30.

To reconcile differences between this subchapter and the incorporated sections of 10 CFR Part 30, the following words and phrases shall be substituted for the language in 10 CFR Part 30 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to "byproduct material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 217.132 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 217.133. Persons possessing a license for source, byproduct or special nuclear material in quantities not sufficient to form a critical mass on the date the Commonwealth becomes an agreement state as published in the *Federal Register*.

On the date the Commonwealth becomes an agreement state as published in the *Federal Register*, a person who possesses a general or specific license issued by the NRC for source, byproduct or special nuclear material in quantities not sufficient to form a critical mass, is deemed to possess a like license issued under this chapter and the act. The license shall expire either 90 days after receipt from the Department of a notice of expiration of the license, or on the date of expiration specified in the NRC license, whichever is earlier.

Source

The provisions of this § 217.133 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

Cross References

This section cited in 25 Pa. Code § 217.203 (relating to reciprocity of licenses for byproduct, source, naturally occurring and accelerator-produced radioactive material and special nuclear material in quantities not sufficient to form a critical mass).

§ 217.134. Filing application for specific licenses.

In addition to incorporation by reference, an application for a specific license shall be accompanied by the fee required under Chapter 218 (relating to fees).

Source

The provisions of this § 217.134 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

Cross References

This section cited in 25 Pa. Code § 217.135 (relating to renewal of licenses).

§ 217.135. Renewal of licenses.

(a) An application for renewal of a specific license shall be filed under § 217.134 (relating to filing application for specific licenses).

(b) If a renewal application is filed prior to 30 days before the expiration of a license, the existing license does not expire until definitive notice has been given by the Department of its action on the renewal application. This subsection also applies to new license applications incorporating other licenses.

Source

The provisions of this § 217.135 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 217.136. Exempt concentrations.

In addition to the parts of 10 CFR Part 30 (relating to rules of general applicability to domestic licensing of byproduct material) incorporated by reference, the following requirements apply:

(1) Except as provided in paragraph (2), a person may receive, possess, use, transfer, own or acquire products or materials containing radioactive material introduced in concentrations less than those listed in Table 1 without possession of a license under this chapter.

(2) Except under a specific license issued under Subchapter D (relating to specific licenses to manufacture or transfer certain items containing radioactive material), or the general license under Subchapter F (relating to specific domestic licenses of broad scope for radioactive material), a person may not introduce radioactive material into a product or material for distribution to persons exempt under paragraph (1) or equivalent regulations of the NRC, an agreement state or licensing state.

TABLE 1
EXEMPT CONCENTRATIONS

Note: Some of the values in Table A-1 are presented in the computer "E" notation. In this notation, a value of 6E-02 represents a value of 6×10^{-2} or 0.06, 6E+2 represents 6×10^2 or 600 and 6E+0 represents 6×10^0 or 6.

| <i>Element (atomic number)</i> | <i>Isotope</i> | <i>Column I Gas concentration μCi/ml</i> | <i>Column II Liquid and solid concentration μCi/ml</i> |
|------------------------------------|----------------|--|--|
| Actinium (89) | Ac-228 | | 9E-04 |
| Cesium (55) | Cs-129 | | 3E-03 |
| Europium (63) | Eu-154 | | 2E-04 |
| Gallium (31) | Ga-67 | | 2E-03 |
| Germanium (32) | Ge-68 | | 9E-03 |
| Gold (79) | Au-195 | | 1E-02 |
| Indium (49) | In-111 | | 1E-03 |
| Iodine (53) | I-123 | | 3E-04 |
| | I-124 | | 4E-06 |
| | I-125 | | 2E-06 |
| Lead (82) | Pb-212 | | 2E-04 |
| Phosphorus (15) | P-33 | | 3E-04 |
| Potassium (19) | K-43 | | 2E-04 |
| Protactinium (91) | Pa-230 | | 2E-03 |
| Radium (88) | Ra-223 | | 7E-06 |
| | Ra-224 | | 2E-05 |
| | Ra-228 | | 3E-07 |

| <i>Element (atomic number)</i> | <i>Isotope</i> | <i>Column I Gas concentration μCi/ml</i> | <i>Column II Liquid and solid concentration μCi/ml</i> |
|------------------------------------|----------------|--|--|
| Radon (86) | Rn-220 | 1E-07 | |
| | Rn-222 | 3E-08 | |
| Sodium (11) | Na-22 | | 4E-04 |
| Technetium (43) | Tc-97m | | 4E-03 |
| Xenon (54) | Xe-127 | 4E-06 | |
| Yttrium (39) | Y-88 | | 8E-04 |

Source

The provisions of this § 217.136 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282351) to (282352).

§ 217.137. Exempt quantities.

In addition to the parts of 10 CFR 30 incorporated by reference, the following requirements apply:

(1) A person may receive, possess, use, transfer, own or acquire radioactive material in individual quantities each of which is less than those listed in Table 2 if the person does not produce, package or repackage radioactive material for purposes of commercial distribution or incorporate radioactive material into products intended for commercial distribution.

(2) Except under a specific license issued by the Department or the NRC under 10 CFR 32.18 (relating to manufacture, distribution and transfer of exempt quantities of byproduct material: Requirements for license), a person may not, for purposes of commercial distribution, transfer radioactive material for distribution to persons exempt under paragraph (1) or equivalent regulations of the NRC, an agreement state or licensing state.

TABLE 2
EXEMPT QUANTITIES

| <i>Radioactive Material</i> | <i>Microcuries</i> |
|-----------------------------|--------------------|
| Actinium-228 (Ac 228) | 1 |
| Beryllium-7 (Be 7) | 10 |
| Bismuth-207 (Bi 207) | 10 |
| Cesium-129 (Cs 129) | 100 |
| Cobalt-57 (Co 57) | 100 |
| Gallium-67 (Ga 67) | 100 |
| Germanium-68 | 10 |
| Gold-195 (Au 195) | 10 |

| <i>Radioactive Material</i> | <i>Microcuries</i> |
|-----------------------------|--------------------|
| Gold-196 (Au 196) | 1 |
| Indium-111 (In 111) | 100 |
| Iodine-123 (I 123) | 100 |
| Iodine-124 (I 124) | 1 |
| Iridium-190 (Ir 190) | 100 |
| Lead-203 (Pb 203) | 100 |
| Lead-210 (Pb 210) | 0.1 |
| Lead-212 (Pb 212) | 10 |
| Phosphorus-33 (P 33) | 10 |
| Potassium-43 (K 43) | 10 |
| Protactinium-230 (Pa 230) | 10 |
| Protactinium-231 (Pa 231) | 0.1 |
| Radium-223 (Ra 223) | 1 |
| Radium-224 (Ra 224) | 1 |
| Radium-226 (Ra 226) | 0.1 |
| Radium-228 (Ra 228) | 0.1 |
| Radon-220 (Rn 220) | 1 |
| Radon-222 (Rn 222) | 1 |
| Rhenium-183 (Re 183) | 100 |
| Rhenium-187 (Re 187) | 100 |
| Rubidium-81 (Rb 81) | 10 |
| Scandium-46 (Sc 46) | 10 |
| Sodium-22 (Na 22) | 10 |
| Technetium-96m (Tc 96m) | 100 |
| Xenon-127 (Xe 127) | 1,000 |
| Yttrium-87 (Y 87) | 10 |
| Yttrium-88 (Y 88) | 10 |

Source

The provisions of this § 217.137 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

Subchapter C. GENERAL LICENSES FOR RADIOACTIVE MATERIAL

Sec.

- 217.141. Incorporation by reference.
- 217.142. Effect of incorporation of 10 CFR Part 31.
- 217.143. Certain measuring, gauging or controlling devices.
- 217.144. Incidental radioactive material produced by a particle accelerator.

Source

The provisions of this Subchapter C adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

Cross References

This subchapter cited in 25 Pa. Code § 217.203 (relating to reciprocity of licenses of naturally occurring and accelerator-produced radioactive material).

§ 217.141. Incorporation by reference.

(a) Except as provided in this subchapter, the requirements of 10 CFR Part 31 (relating to general domestic licenses for byproduct material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 31.4 and 31.14 (relating to information collection requirements: OMB approval; and criminal penalties) are not incorporated by reference.

Source

The provisions of this § 217.141 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282354).

§ 217.142. Effect of incorporation of 10 CFR Part 31.

To reconcile differences between this subchapter and the incorporated sections of 10 CFR Part 31 (relating to general domestic licenses for byproduct material), the following words and phrases shall be substituted for the language in 10 CFR Part 31 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to "byproduct material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

§ 217.143. Certain measuring, gauging or controlling devices.

In addition to the parts of 10 CFR 31.5 (relating to certain detecting measuring, gauging, or controlling devices and certain devices for producing light or an ionized atmosphere) incorporated by reference, general licensees subject to registration under 10 CFR 31.5(c)(13)(i) or possessing general licensed devices containing 37 MBq (1 mCi) or more of accelerator-produced material, as determined on the date of manufacture, or 3.7 MBq (0.1 mCi) or more of radium-226 shall also comply with the following:

(1) Conduct a physical inventory every 6 months to account for all sources or devices, or both, received and possessed under this section and do the following:

(i) Maintain the physical inventory records for 3 years from the date of each inventory.

(ii) Furnish a report to the Department annually showing to the extent practicable, the make, model, serial number, isotope, source activity and location of each device. The report shall list an individual to contact regarding questions about this report.

(2) For portable devices, also comply with the following:

(i) A person who initiates acquisition, transfer or disposal of a portable device shall notify the Department within 15 days of the action. Sending a portable device for calibration, maintenance or source replacement does not constitute transfer.

(ii) Portable devices may only be used by or under the direct supervision of individuals who have been instructed in the operating and emergency procedures necessary to ensure safe use.

(iii) For each individual that the licensee permits to use a portable device, the licensee shall maintain a record showing the type of device use permitted and the basis, such as training certificates, for that authorization. An individual's record shall be kept for at least 3 years after the individual terminates association with the licensee.

(iv) Portable devices shall be secured from access by unauthorized personnel whenever the device is not under the direct surveillance of an individual authorized to use the device.

(v) The licensee shall maintain a current sign out log at the permanent storage location of the portable device. Log entries shall be available for inspection by the Department for 3 years from the date of entry. The following information shall be recorded for each portable device:

(A) The model and serial number of the device.

(B) The name of the assigned user.

(C) The locations and dates of use.

(vi) Emergency instructions shall accompany each portable device taken off the premises of the licensee.

Source

The provisions of this § 217.143 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (282354) to (282355).

Cross References

This section cited in 25 Pa. Code Chapter 218, Appendix A (relating to fees for radioactive material licenses).

§ 217.144. Incidental radioactive material produced by a particle accelerator.

A general license is issued to possess radioactive material produced incidentally to the operation of a particle accelerator. The general license is also subject to the applicable provisions of this chapter and Chapters 215, 219 and 220 (relating to general provisions; standards for protection against radiation; and notices, instructions and reports to workers; inspections and investigations). A licensee may transfer this radioactive material only under Subchapter I and Chapter 230 (relating to transfer of radioactive material; and packaging and transportation of radioactive material). A licensee may dispose of this radioactive material only with Department approval.

Cross References

This section cited in 25 Pa. Code § 228.37 (relating to production of radioactive materials).

Subchapter D. SPECIFIC LICENSES TO MANUFACTURE OR TRANSFER CERTAIN ITEMS CONTAINING RADIOACTIVE MATERIAL**Sec.**

- 217.151. Incorporation by reference.
- 217.152. Effect of incorporation of 10 CFR Part 32.
- 217.153. Licensing the incorporation of NARM into gas and aerosol detectors.
- 217.154. Special requirements for license to manufacture calibration sources containing americium-241, plutonium or radium-226.
- 217.155. Manufacture and distribution of radioactive material for certain in vitro clinical or laboratory testing under general license.

Source

The provisions of this Subchapter D adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

Cross References

This subchapter cited in 25 Pa. Code § 217.136 (relating to exempt concentrations).

§ 217.151. Incorporation by reference.

(a) Except as provided in this subchapter, the requirements of 10 CFR Part 32 (relating to specific domestic licenses to manufacture or transfer certain items containing byproduct material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 32.8, 32.14, 32.15, 32.16, 32.18, 32.19, 32.20, 32.21, 32.22, 32.23, 32.25, 32.26, 32.27, 32.28, 32.29 and 32.40 are not incorporated by reference.

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§ 217.152. Effect of incorporation of 10 CFR Part 32.

To reconcile differences between this subchapter and the incorporated sections of 10 CFR Part 32 (relating to specific domestic licenses to manufacture or transfer certain items containing byproduct material), the following words and phrases shall be substituted for the language in 10 CFR Part 32 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to byproduct material includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

§ 217.153. Licensing the incorporation of NARM into gas and aerosol detectors.

An application for a specific license authorizing the incorporation of NARM into gas and aerosol detectors to be distributed to persons exempt under Subchapter B (relating to general provisions for radioactive material) will be approved if the application satisfies requirements equivalent to those in 10 CFR 32.26—32.29. The maximum quantity of radium-226 may not exceed 0.1 microcuries (3.7 kBq).

§ 217.154. Special requirements for license to manufacture calibration sources containing americium-241, plutonium or radium-226.

In addition to the incorporation by reference of requirements in 10 CFR 32.57 (relating to calibration sources containing americium-241), applicants using plutonium and radium-226 in the manufacture of calibration or reference sources shall comply with 10 CFR 32.57.

§ 217.155. Manufacture and distribution of radioactive material for certain in vitro clinical or laboratory testing under general license.

(a) In addition to the incorporation by reference of requirements in 10 CFR 32.71 (relating to manufacture and distribution of radioactive material for certain in vitro clinical or laboratory testing under general license), applicants using cobalt-57 shall prepare for distribution the cobalt-57 in prepackaged units that do not exceed 10 microcuries (370 kBq) of cobalt-57.

(b) A prepackaged unit shall bear a durable, clearly visible label identifying the radioactive contents as to chemical form and radionuclide, and indicating that the amount of radioactivity does not exceed 10 microcuries (370 kBq) cobalt-57.

**Subchapter F. SPECIFIC DOMESTIC LICENSES OF BROAD SCOPE
FOR RADIOACTIVE MATERIAL**

Sec.

- 217.161. Incorporation by reference.
217.162. Effect of incorporation of 10 CFR Part 33.
217.163. Types of specific licenses of broad scope.

Source

The provisions of this Subchapter F adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

Cross References

This subchapter cited in 25 Pa. Code § 217.136 (relating to exempt concentrations).

§ 217.161. Incorporation by reference.

(a) Except as provided in this subchapter, the requirements of 10 CFR Part 33 (relating to specific domestic licenses of broad scope for byproduct material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 33.8, 33.21 and 33.23 (relating to information collection requirements: OMB approval; violations; and criminal penalties) are not incorporated by reference.

§ 217.162. Effect of incorporation of 10 CFR Part 33.

To reconcile differences between this subchapter and the incorporated sections of 10 CFR Part 33, the following words and phrases shall be substituted for the language in 10 CFR Part 33 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to byproduct material includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

§ 217.163. Types of specific licenses of broad scope.

In addition to the incorporation by reference of 10 CFR 33.11 (relating to types of specific licenses of broad scope), the following requirements for licensees using NARM also apply:

- (1) A Type A specific license of broad scope is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of a chemical or physical form of radioactive material specified in the license, but not exceeding quantities specified in the license, for purposes authorized by the act.

The quantities specified exceed those specified in Column I, Table 3 and are usually in the multicurie range.

(2) A Type B specific license of broad scope is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of a chemical or physical form of radioactive material specified in Table 3, for an authorized purpose. The possession limit for a Type B broad license, if only one radionuclide is possessed thereunder, is the quantity specified for that radionuclide in Column I, Table 3. If two or more radionuclides are possessed thereunder, the possession limit for each is determined as follows: for each radionuclide, determine the ratio of the quantity possessed to the applicable quantity specified in Column I, Table 3, for that radionuclide; the sum of the ratios for radionuclides possessed under the license may not exceed unity.

(3) A Type C specific license of broad scope is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of a chemical or physical form of radioactive material specified in Table 3, for an authorized purpose. The possession limit for a Type C broad license, if only one radionuclide is possessed thereunder, is the quantity specified for that radionuclide in Column II, Table 3. If two or more radionuclides are possessed thereunder, the possession limit is determined for each as follows: for each radionuclide determine the ratio of the quantity possessed to the applicable quantity specified in Column II, Table 3, for that radionuclide; the sum of the ratios for radionuclides possessed under the license may not exceed unity.

TABLE 3
LIMITS FOR BROAD LICENSES

| <i>Radioactive Material</i> | <i>Col. I curies</i> | <i>Col. II curies</i> |
|---------------------------------|----------------------|-----------------------|
| Beryllium-7 | 10 | 0.1 |
| Cobalt-57 | 10 | 0.1 |
| Radium-226 | 0.01 | 0.0001 |
| Scandium-46 | 1 | 0.01 |
| Sodium-22 | 0.1 | 0.001 |

Subchapter G. LICENSING OF SOURCE MATERIAL

Sec.

217.171. Incorporation by reference.

217.172. Effect of incorporation of 10 CFR Part 40.

Source

The provisions of this Subchapter G adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

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§ 217.171. Incorporation by reference.

(a) Except as provided in this subchapter, the requirements of 10 CFR Part 40 (relating to domestic licensing of source material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 40.6, 40.8, 40.12(b), 40.23, 40.27, 40.28, 40.31(k) and (i), 40.32(d), (e) and (g), 40.33, 40.38, 40.41(d), (e)(1) and (3) and (g), 40.51(b)(6), 40.64, 40.66, 40.67, 40.81 and 40.82 are not incorporated by reference.

Source

The provisions of this § 217.171 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282359).

§ 217.172. Effect of incorporation of 10 CFR Part 40.

To reconcile differences between this subchapter and the incorporated sections of 10 CFR Part 40 (relating to domestic licensing of source material), the following words and phrases shall be substituted for the language in 10 CFR Part 40 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to "byproduct material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Subchapter II. LICENSING OF SPECIAL NUCLEAR MATERIAL**Sec.**

217.181. Incorporation by reference.

217.182. Effect of incorporation of 10 CFR Part 70.

Source

The provisions of this Subchapter II adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

§ 217.181. Incorporation by reference.

(a) Except as provided in this subchapter, the requirements of 10 CFR Part 70 (relating to domestic licensing of special nuclear material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 70.1(c), (d) and (e), 70.5, 70.6, 70.8, 70.13, 70.13a, 70.20a, 70.20b, 70.21(a)(1),

(c), (f), (g) and (h), 70.22(b), (c), (f), (g), (h), (i), (j), (k), (l), (m) and (n), 70.23(a)(6), (7), (8), (9), (10), (11) and (12) and (b), 70.23a, 70.24, 70.25(a), 70.31(c), (d) and (e), 70.32(a)(1), (4), (5), (6) and (7) and (b)(1), (3) and (4) and (c), (d), (e), (f), (g), (h), (i), (j) and (k), 70.37, 70.40, 70.42(b)(6), 70.44, 70.51(c), (d) and (e), 70.52, 70.53, 70.54, 70.55(c)(1), (2) and (3), 70.56(c) and (d), 70.57, 70.58, 70.59, 70.62, 70.71 and 70.72 are not incorporated by reference.

§ 217.182. Effect of incorporation of 10 CFR Part 70.

To reconcile differences between this subchapter and the incorporated sections of 10 CFR Part 70 (relating to domestic licensing of special nuclear material), the following words and phrases shall be substituted for the language in 10 CFR Part 70 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to "byproduct material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Subchapter I. TRANSFER OF RADIOACTIVE MATERIAL

Sec.

217.191. Transfer of material.

Source

The provisions of this Subchapter I adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

Cross References

This subchapter cited in 25 Pa. Code § 217.144 (relating to incidental radioactive material produced by a particle accelerator).

§ 217.191. Transfer of material.

The requirements of 10 CFR 30.41 (relating to transfer of byproduct material) also apply to NARM.

Subchapter J. RECIPROCITY

Sec.

- 217.201. Incorporation by reference.
217.202. Effect of incorporation of 10 CFR Part 150.
217.203. Reciprocity of licenses for byproduct source, naturally occurring and accelerator-produced radioactive material and special nuclear material in quantities not sufficient to form a critical mass.

Source

The provisions of this Subchapter J adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

§ 217.201. Incorporation by reference.

Except as provided in this subchapter, the requirements of 10 CFR 150.1, 150.2, 150.3, 150.11 and 150.20 are incorporated by reference.

Source

The provisions of this § 217.201 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial page (282361).

§ 217.202. Effect of incorporation of 10 CFR Part 150.

To reconcile differences between this subchapter and the incorporated sections of 10 CFR Part 150 (relating to exemptions and continued regulatory authority in agreement states and in offshore waters under section 274), the following words and phrases shall be substituted for the language in 10 CFR Part 150:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) A reference to "byproduct material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 217.202 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial page (282362).

§ 217.203. Reciprocity of licenses for byproduct, source, naturally occurring and accelerator-produced radioactive material and special nuclear material in quantities not sufficient to form a critical mass.

- (a) Subject to this article, a person who holds a specific license from the NRC or a state where the licensee maintains an office, issued by the agency hav-

ing jurisdiction to direct the licensed activity and to maintain radiation safety records, is granted a general license to conduct the activities authorized in the licensing document within this Commonwealth, except for areas of exclusive Federal jurisdiction, for a period not in excess of 180 days in a calendar year if:

(1) The licensing document does not limit the activity authorized by the document to specified installation or locations.

(2) The out-of-State licensee notifies the Department in writing at least 3 days prior to engaging in the activity. The notification shall indicate the location, period and type of proposed possession and use within this Commonwealth, and shall be accompanied by a copy of the pertinent licensing document. If for a specific case the 3-day period would impose an undue hardship on the out-of-State licensee, the licensee may, upon application to the Department, obtain permission to proceed sooner. The Department may waive the requirement for filing additional written notifications during the remainder of the calendar year following the receipt of the initial notification from a person engaging in activities under the general license provided in this subsection.

(3) The out-of-State licensee complies with this title and with the terms and conditions of the licensee's document, except terms and conditions which may be inconsistent with this title.

(4) The out-of-State licensee supplies other information as the Department may request.

(5) The out-of-State licensee does not transfer or dispose of radioactive material possessed or used under the general license provided in this subsection except by transfer to a person who is one of the following:

(i) Specifically licensed by the Department, the NRC or by another state to receive the material.

(ii) Exempt from the requirements for a license for the material under Subchapter B (relating to general provisions for radioactive material).

(b) Notwithstanding the provisions of subsection (a), a person who holds a specific license issued by the NRC or a state authorizing the holder to manufacture, transfer, install or service a device described in Subchapter C (relating to general licenses for radioactive material) within areas subject to the jurisdiction of the licensing body is granted a general license to install, transfer, demonstrate or service the device in this Commonwealth subject to the following conditions:

(1) The person files a report with the Department within 30 days after the end of a calendar quarter in which a device is transferred to or installed in this Commonwealth. The report shall identify the general licensee to whom the device is transferred by name and address, the type of device transferred and the quantity and type of radioactive material contained in the device.

(2) The device has been manufactured, labeled, installed and serviced in accordance with the specific license issued to the person by the NRC or a state.

(3) The person assures that labels required to be affixed to the device, under regulations of the authority which licensed manufacture of the device, bear a statement that "Removal of this label is prohibited."

(4) The holder of the specific license or his intermediary shall provide a copy of the conditions of general license contained in Subchapter C to the general licensee upon transfer of the radioactive material or installation of a device containing the radioactive material.

(c) The Department may withdraw, limit or qualify its acceptance of a specific license or equivalent licensing document issued by another agency, or product distributed under the licensing document, upon determining that the action is necessary to prevent undue hazard to public health and safety or property.

(d) When a person is granted a general license under subsection (a) and subsequently exceeds the prescribed 180-day period, the person shall file a license application with the Department under Subchapter B within 30 days after the end of the 180-day period.

(e) Implementation of the requirements of this section regarding byproduct, source and special nuclear material is subject to § 217.133 (relating to persons possessing a license for source, byproduct or special nuclear material in quantities not sufficient to form a critical mass on the date the Commonwealth becomes an agreement state as published in the *Federal Register*).

Source

The provisions of this § 217.203 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282362) to (282363).

APPENDIX A. [Reserved]

Source

The provisions of this Appendix A reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203868) to (203873).

APPENDIX B. [Reserved]

Source

The provisions of this Appendix B reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203874) to (203879).

APPENDIX C. [Reserved]

Source

The provisions of this Appendix C adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135. Immediately preceding text appears at serial pages (123598) to (123600).

APPENDIX D. [Reserved]

Source

The provisions of this Appendix D reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203879) to (203884).

[Next page is 218-1.]

CHAPTER 218. FEES**GENERAL**

Sec.

218.1. Purpose and scope.

PAYMENT OF FEES

218.11. Registration, renewal of registration and license fees.

218.12. Failure by registrant or licensee to pay required fee.

Authority

The provisions of this Chapter 218 issued under sections 302 and 401 of the Radiation Protection Act (35 P. S. §§ 7110.302 and 7110.401), unless otherwise noted.

Source

The provisions of this Chapter 218 adopted December 31, 1987, effective January 2, 1988, 18 Pa.B. 11, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 216.2 (relating to registration); 25 Pa. Code § 216.4 (relating to renewal of certificate of registration); 25 Pa. Code § 217.1 (relating to purpose and scope); 25 Pa. Code § 217.134 (relating to filing applications for specific licenses); 25 Pa. Code § 224.1 (relating to purpose and scope); 25 Pa. Code § 225.1 (relating to purpose and scope); 25 Pa. Code § 226.1 (relating to purpose and scope); and 25 Pa. Code § 232.1 (relating to purpose and scope).

GENERAL**§ 218.1. Purpose and scope.**

(a) This chapter establishes fees for registration and licensing and provides for their payment. For the purpose of this chapter, radiation-producing machines under the same administrative control in a single building are registered or licensed as a single facility. Radiation-producing machines under the same administrative control at the same address or in a contiguous group of buildings may be registered or licensed as a single facility if the Department determines that it is appropriate.

(b) Except as otherwise specifically provided, this chapter applies to a person who:

- (1) Is required to register or renew registration for radiation-producing machines or radiation-producing machine service providers under Chapter 216 (relating to registration of radiation-producing machines and radiation-producing machine service providers).

(2) Is an applicant for or holder of a radioactive material license issued under Chapter 217 (relating to licensing of radioactive material).

(3) Is an applicant for or holder of an accelerator license issued under Chapter 228 (relating to radiation safety requirements for particle accelerators).

Authority

The provisions of this § 218.1 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 218.1 amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6280; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285659) to (285660).

PAYMENT OF FEES

§ 218.11. Registration, renewal of registration and license fees.

(a) Annual registration fees for radiation-producing machines, other than accelerators, are the sum of an annual administrative fee and an annual fee for each X-ray tube or radiation generating device as follows:

| <i>Type Facility</i> | <i>Annual Administrative Fee</i> | <i>Annual Fee per X-ray Tube or Radiation Generating Device</i> |
|---|----------------------------------|---|
| Dentists, podiatrists, veterinarians | \$ 70 | \$35 |
| Hospitals | \$520 | \$35 |
| Other Facilities | \$250 | \$35 |

(b) A registrant filing an initial registration under § 216.2 (relating to registration of radiation-producing machines) or an application for renewal of a certificate of registration under § 216.4 (relating to renewal of certificate of registration) shall remit the appropriate fee calculated by using the information on the registration or application form and the fee schedule in subsection (a). Fees for any initial registration under § 216.2 are payable upon the filing of the registration. Fees for the renewal of a certificate of registration are payable upon the submission of an application for a renewal of a certificate of registration. If the number of tubes increases after an initial registration or after an application for renewal has been filed with the Department, no additional fee is required until the time of the next registration. Likewise, if the number of tubes decreases during the year, no refund will be made for that year.

(c) Annual license fees for radioactive material are set forth in Appendix A (relating to fees for radioactive material licenses).

(1) No refund will be made for termination of a license.

(2) If, by amendment or otherwise, a license changes to another fee category, the fee for the new category will take effect on the anniversary date of the license.

(d) Particle accelerators are licensed under Chapter 228 (relating to radiation safety requirements for particle accelerators). Annual fees are as follows:

(i) Accelerators, below 50 MeV, other than for ion implantation—\$1,500 for the first accelerator at the facility plus \$500 for each additional unit at that facility.

(ii) Accelerators used for ion implantation—\$500 plus \$50 for each additional unit at the same facility.

(iii) Accelerators above 50 MeV—full cost of staff time to review license applications and conduct inspections as needed. (Hourly rate is \$50 per hour). For the purpose of anticipating costs and compliance with subsections (e) and (f), a minimum annual fee of \$1,500 for the first accelerator at the facility plus \$500 for each additional unit is established. Additional invoices will be issued by the Department at regular intervals at least quarterly when net costs are incurred above the minimum annual fee.

(e) An initial application for a license or reciprocity shall be accompanied by a check payable to the Department in accordance with the fee schedules in subsections (c) and (d). Thereafter, the Department will issue an annual fee invoice in accordance with the appropriate fee schedule at least 2 months prior to the license expiration. Fees are payable by the last day of the license expiration month as shown on the license fee invoice. This provision is not applicable to full cost recovery licenses specified in Appendix A.

(f) The Department will not accept an initial application for a license prior to payment of the fees required by subsections (c) and (d).

(g) If the registration involves more than one of the facilities in subsection (a), or if a license involves more than one of the categories in subsection (c), the highest applicable fee applies.

(h) A radiation-producing machine service provider shall pay an annual registration fee of \$100.

Authority

The provisions of this § 218.11 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 218.11 adopted December 31, 1987, effective January 2, 1988, 18 Pa.B. 11; amended May 3, 1991, effective May 4, 1991, 21 Pa.B. 2005; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6280; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285660) to (285661).

Cross References

This section cited in 25 Pa. Code § 216.1 (relating to purpose and scope); 25 Pa. Code § 216.2a (relating to registration of radiation-producing machine service providers); 25 Pa. Code § 216.4 (relating to renewal of certificate of registration); 25 Pa. Code § 216.4a (relating to expiration and termination of certificates of registration); and 25 Pa. Code § 228.21a (relating to notification and license requirements).

§ 218.12. Failure by registrant or licensee to pay required fee.

(a) A registrant or licensee who fails to pay an annual fee required under this chapter shall be subject to the civil and criminal penalties provided under the act.

(b) Nonpayment of fees required by this chapter shall be cause for revocation of licenses or registrations issued by the Department under the act.

Authority

The provisions of this § 218.12 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302).

Source

The provisions of this § 218.12 amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6280. Immediately preceding text appears at serial page (249247).

APPENDIX A**Fees for Radioactive Material Licenses**

| <i>Fee Category^{5,6}</i> | <i>Description</i> | <i>Annual Fee (\$)^{1,2,3,4,7}</i> |
|-----------------------------------|--|--|
| 1C | Special Nuclear Material Sealed Source Gauges (X-Ray Fluorescence) | 875 |
| 1D | Special Nuclear Material—Other | 2,475 |
| 2B | Source Material as Shielding | 450 |
| 2C | Source Material—Other (not 11e2) | 8,650 |
| 3A1 | Manufacturing & Distribution Commercial Broad Scope—10 CFR 30, 33 | 19,875 |
| 3A2 | Manufacturing & Distribution Commercial Broad Scope—NARM Only | 4,000 |
| 3B1 | Manufacturing & Distribution Commercial Specific License—10 CFR 30 | 4,650 |
| 3B2 | Manufacturing & Distribution Commercial Specific License—NARM Only | 2,000 |
| 3C1 | Manufacturing & Distribution Pharmaceuticals—10 CFR 32.72—32.74 | 11,650 |

| <i>Fee Category^{5,6}</i> | <i>Description</i> | <i>Annual Fee (\$)^{1,2,3,4,7}</i> |
|-----------------------------------|--|--|
| 3C2 | Manufacturing & Distribution Pharmaceuticals—NARM Only | 4,000 |
| 3D1 | Pharmaceuticals—Distribution Only—10 CFR 32.7x | 2,825 |
| 3D2 | Pharmaceuticals—Distribution Only—NARM Only | 2,000 |
| 3E | Irradiator—Shielded Source | 2,575 |
| 3F | Irradiator—Unshielded < 10kCi | 4,300 |
| 3G | Irradiator—Unshielded >= 10kCi | 10,750 |
| 3I | Distribution As Exempt—No Review of Device | 3,525 |
| 3J | Distribution—SSD Devices to Part 31 GLs | 1,550 |
| 3K | Distribution—No Review-Exempt Sealed Source | 1,300 |
| 3L1 | Research & Development Broad Scope | 8,300 |
| 3L2 | Research & Development Broad Scope—NARM Only | 2,000 |
| 3M1 | Research & Development | 3,650 |
| 3M2 | Research & Development—NARM Only | 750 |
| 3N | Services other than Leak Testing, Waste Disposal or Calibration | 3,875 |
| 3O | Radiography | 10,850 |
| 3P1 | Other Byproduct Material | 1,900 |
| 3P2 | NARM Licenses not covered elsewhere | 750 |
| 3Q | Generally licensed devices under § 217.143 (relating to certain measuring, gauging or controlling devices) | 315 |
| 4A | Waste Storage, Processing or Disposal | Full Cost * |
| 4B | Waste Packaging or Repackaging | 8,175 |
| 4C | Waste Receipt of Prepackaged for Disposal | 6,125 |
| 5A | Well Logging & Non Field Flood Tracers | 7,500 |
| 5B | Well Logging Field Flood Tracer Studies | Full Cost * |
| 6A | Nuclear Laundry | 14,250 |

| <i>Fee Category^{5,6}</i> | <i>Description</i> | <i>Annual Fee (\$)^{1,2,3,4,7}</i> |
|-----------------------------------|---|--|
| 7A | Human Use—Teletherapy | 11,275 |
| 7B1 | Human Use—Broad Scope (except Teletherapy) | 19,975 |
| 7B2 | Human Use—Broad Scope (except Teletherapy)—NARM Only | 2,000 |
| 7C1 | Human Use—Specific License (except Teletherapy) | 4,300 |
| 7C2 | Human Use—Specific License (except Teletherapy)—NARM Only | 750 |
| 8A1 | Specifically licensed sources used in static eliminators, nonexempt smoke detectors, fixed gauges, dew pointers, calibration sources, civil defense uses or in temporary (2 years or less) storage | 875 |
| 8A2 | Specifically licensed NARM sources used in static eliminators, nonexempt smoke detectors, fixed gauges, dew pointers, calibration sources, civil defense uses or in temporary (2 years or less) storage | 200 |
| 14 | Decontamination, Decommissioning, Reclamation or Site Restoration | Full Cost * |
| 16A | Reciprocity (180 days/year) | 900 |
| 16B | Reciprocity—NARM (180 days/year) | 300 |
| SB1 ₅ | Small Business—Category 1 | 2,100 |
| SB2 ₆ | Small Business—Category 2 | 400 |

¹ A license may include as many as four noncontiguous sites at the base fee. Sites that are within 5 miles of the main Radiation Safety Office where the license records are kept will be considered contiguous. An additional fee of 25% of the base fee will be added for each noncontiguous site above four.

² All fees for NARM licenses will be effective upon publication of the final rules in the *Pennsylvania Bulletin*. The fees for NRC licenses that are transferred to the Commonwealth will be effective on the next license anniversary date. NARM licenses will be changed to the corresponding category of byproduct material license on the next license anniversary date after achievement of Agreement State status and fees adjusted at that time. The NARM license categories will cease to exist one year after Agreement State status is achieved.

³ Annual fees for categories of NRC licenses that are not included in this table will be calculated as follows: PA Fee = 0.7 (NRC Annual Fee + 0.10 NRC Application or Renewal fee).

⁴ Annual fees charged to holders of transferred NRC licenses with multiple sites will not exceed the fees charged by the NRC for the same licenses in the year of transfer, provided the number of noncontiguous sites remains constant.

⁵ Small Businesses Not Engaged in Manufacturing, and Small Not-For-Profit Organizations with Gross Annual Receipts of more than \$350,000 and less than \$5 million; Manufacturing Entities that have an average of 35—500 employees with Gross Annual Receipts of more than \$350,000 and less than \$5 million; Small Government Jurisdictions (including publicly supported, nonmedical educational institutions) with a population between 20,000 and 50,000; and nonmedical Educational Institutions that are not state or publicly supported and have 35—500 employees.

⁶ Small Businesses Not Engaged in Manufacturing, and Small Not-For-Profit Organizations with Gross Annual Receipts of less than \$350,000; Manufacturing Entities that have an average of less than 35 employees and less than \$350,000 in Gross Annual Receipts; Small Government Jurisdictions (including publicly supported nonmedical educational institutions) with a population less than 20,000; and nonmedical Educational Institutions that are not state or publicly supported and have less than 35 employees.

⁷ Full cost recovery licensees and licensees required to provide financial assurance for decommissioning are not eligible for reduced fees under category SB1 or SB2.

* Full cost recovery consists of a professional fee, to cover the activities and support of Department personnel, and any other additional incidental charges incurred, such as related contracted services or laboratory costs. The professional fee component (Hourly Rate) is \$50 per hour. Other costs are recovered at 100% of actual cost. Invoices shall be issued by the Department at regular intervals but at least quarterly when net costs are incurred.

Authority

The provisions of this Appendix A issued under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); amended under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administration Code of 1929 (71 P.S. 510-20).

Source

The provisions of this Appendix A adopted November 16, 2001, effective November 17, 2001, 31 Pa.B. 6280; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (285662) to (285664).

Cross References

This appendix cited in 25 Pa. Code § 218.11 (relating to registration, renewal of registration and license fees).

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CHAPTER 219. STANDARDS FOR PROTECTION AGAINST RADIATION

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Authority

The provisions of this Chapter 219 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 219 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 217.1 (relating to purpose and scope); 25 Pa. Code § 217.144 (relating to incidental radioactive material produced by a particle accelerator); 25 Pa. Code § 220.2 (relating to posting of notices to workers); 25 Pa. Code § 224.1 (relating to purpose and scope); 25 Pa. Code § 225.1 (relating to purpose and scope); 25 Pa. Code § 225.74 (relating to training and testing); 25 Pa. Code § 225.84 (relating to operating and emergency procedures); 25 Pa. Code § 225.91 (relating to radiation survey meter requirements); 25 Pa. Code § 226.1 (relating to purpose and scope); 25 Pa. Code § 228.31a (relating to limitations); 25 Pa. Code § 228.33a (relating to facility and shielding requirements); 25 Pa. Code § 228.38 (relating to radiation safety surveys); 25 Pa. Code § 232.1 (relating to purpose and scope); 25 Pa. Code § 236.15 (relating to protection of individuals during operations); 25 Pa. Code § 236.208 (relating to specific technical information); 25 Pa. Code § 236.209 (relating to technical analyses); 25 Pa. Code § 236.225 (relating to requirements for issuance of license); and 25 Pa. Code § 236.403 (relating to facility operation plan).

Subchapter A. GENERAL PROVISIONS

| | |
|----------------|---|
| Sec. | |
| 219.1. | Purpose. |
| 219.2. | Scope. |
| 219.3. | Definitions. |
| 219.4. | [Reserved]. |
| 219.5. | Incorporation by reference. |
| 219.6. | Effect of incorporation of 10 CFR Part 20. |
| 219.7. | Effect of incorporation of 10 CFR 20.1403 "Criteria for license termination under restricted conditions." |
| 219.8. | Requirement for a Radiation Safety Committee. |
| 219.11—219.15. | [Reserved]. |

GENERAL PROVISIONS**§ 219.1. Purpose.**

(a) This chapter establishes standards for protection against ionizing radiation resulting from activities conducted under licenses or registrations issued by the Department. Licensees and registrants shall comply with this chapter.

(b) The requirements of this chapter are designed to control the receipt, possession, use, transfer and disposal of sources of radiation by a licensee or registrant so the total dose to an individual, including doses resulting from all sources of radiation other than background radiation, does not exceed the standards for protection against radiation prescribed in this chapter. This chapter does not limit actions that may be necessary to protect health and safety.

Source

The provisions of this § 219.1 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial page (170385).

§ 219.2. Scope.

Except as specifically provided in other chapters of this article, this chapter applies to persons licensed or registered by the Department to receive, possess, use, transfer or dispose of sources of radiation. The limits in this chapter do not apply to doses due to background radiation, to exposure of patients to radiation for the purpose of medical diagnosis or therapy or to voluntary participation in medical research programs.

Source

The provisions of this § 219.2 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial pages (170385) to (170386).

§ 219.3. Definitions.

The following term, when used in this subchapter, has the following meaning, unless the context clearly indicates otherwise:

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Medical reportable event for radiation-producing machine therapy—The administration to a human being, except for an administration resulting from a direct intervention of a patient that could not have been reasonably prevented by the licensee or registrant, that results in one of the following:

- (i) An administration of a therapeutic radiation dose to the wrong individual.
- (ii) An administration of a dose for therapy when the result is an increase in the total expected doses inside or outside of the intended treatment volume for organs, tissue or skin that exceeds 20% of the total prescribed dose for the intended target volume.
- (iii) A total dose delivered to the treatment site identified in a written directive for therapy that is outside the prescribed dose range or differs from the total prescribed dose by more than 20%, or for a fractionated dose, when the weekly administered dose differs from the weekly prescribed dose by more than 30%.

Source

The provisions of this § 219.3 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282368) to (282369).

Cross References

This section cited in 25 Pa. Code § 228.35 (relating to operating procedures).

§ 219.4. [Reserved].

Source

The provisions of this § 219.4 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (204037).

§ 219.5. Incorporation by reference.

- (a) Except as provided in this chapter, the requirements of 10 CFR Part 20 (relating to standards for protection against radiation) are incorporated by reference.
- (b) Notwithstanding the requirements incorporated by reference, 20.1006, 20.1009, 20.2206(a)(1), (3), (4) and (5), 20.2401 and 20.2402 are not incorporated by reference.

Source

The provisions of this § 219.5 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 219.6. Effect of incorporation of 10 CFR Part 20.

To reconcile differences between this chapter and the incorporated sections of 10 CFR Part 20 (relating to standards for protection against radiation), the following words and phrases shall be substituted for the language in 10 CFR Part 20 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) A reference to "licensee" includes registrant.
- (4) A reference to "license" includes registration.
- (5) A reference to "licensed" includes registered.
- (6) A reference to "Department" in 10 CFR means the United States Department of Energy.
- (7) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.
- (8) 10 CFR Part 20, notwithstanding, exposures involving the use of X-rays may be weighted, in a manner specified by the Department, so that, with Department approval, the effective dose equivalent may be substituted for the deep dose equivalent in determining compliance with occupational exposure limits for specified groups of individuals.

Source

The provisions of this § 219.6 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282369) to (282370).

§ 219.7. Effect of incorporation of 10 CFR 20.1403 "Criteria for license termination under restricted conditions."

The Department will not terminate a license under the conditions of restricted release as provided for in 10 CFR 20.1403 (relating to criteria for license termination under restricted conditions) until a license termination plan (LTP), approved by the Department, has been in effect for a period of time sufficient to demonstrate to the Department that continued implementation of the plan will be effective in maintaining compliance with the required conditions of the plan. The Department may choose to implement the license termination process in one or more of the following steps:

- (1) The license is amended to authorize activities necessary to begin decommissioning under the LTP.
- (2) After decommissioning activities are complete and the provisions of 10 CFR 20.1403 are in effect under the LTP, the license may be amended to end authorization of licensed activities. The license shall remain in effect for up to 5 years being limited to ownership/possession of the decommissioned material.

(3) At the end of the period prescribed in paragraph (2), the Department will make a determination of the effectiveness of the LTP as enacted. If the LTP has demonstrated the ability to maintain compliance with 10 CFR 20.1403, the license will be terminated subject to the revisitation provision of 10 CFR 20.1401(c) (relating to general provision and scope) regarding new evidence of a significant threat to health and safety. Otherwise, the licensee will be directed by the Department to take corrective actions as necessary to conform to 10 CFR 20.1403 and the process shall revert back to paragraph (2).

Source

The provisions of this § 219.7 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 219.8. Requirement for a Radiation Safety Committee.

The requirements of 10 CFR 35.24 (relating to authority and responsibilities for the radiation protection program) apply to registrants as well as licensees. For the purpose of this requirement, facilities that utilize two or more modalities in which patients are likely to receive, or will receive a dose to an organ in excess of 200 rads (2.0 gray), shall have a radiation safety committee.

Source

The provisions of this § 219.8 adopted July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823.

§§ 219.11—219.15. [Reserved].

Source

The provisions of these §§ 219.11—219.15 reserved November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial pages (170386) to (170393).

Subchapter B. [Reserved]

§ 219.21. [Reserved].

Source

The provisions of this § 219.21 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204038) and (249251).

§ 219.22. [Reserved].

Source

The provisions of this § 219.22 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; reserved November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial pages (170394) to (170396).

Subchapter C. [Reserved]**§§ 219.31—219.33. [Reserved].****Source**

The provisions of these §§ 219.31—219.33 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249251) to (249252) and (204041) to (204042).

§§ 219.34—219.38. [Reserved].**Source**

The provisions of these §§ 219.34—219.38 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204042), (249253) to (249254) and (204045) to (204048).

§§ 219.41—219.49. [Reserved].**Source**

The provisions of these §§ 219.41—219.49 reserved November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial pages (170398) to (170404).

**Subchapter D. RADIATION DOSE LIMITS FOR
INDIVIDUAL MEMBERS OF THE PUBLIC****Sec.**

219.51. Dose limits for individual members of the public.

219.52. [Reserved].

§ 219.51. Dose limits for individual members of the public.

In addition to incorporation by reference of 10 CFR Part 20 Subpart D (relating to dose limits for individual members of the public), registrants who met the previous limit (5 mSv or 0.5 REM in 1 year) for locations having existing radiation-producing machines or equipment or other registered radiation sources will not be required to retrofit installations existing before November 18, 1995. The Department does not require the retrofitting of shielding for the replacement of equipment in the facility as long as the equipment is being replaced with similar equipment.

Source

The provisions of this § 219.51 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204048) and (249255).

Cross References

This section cited in 25 Pa. Code § 223.7 (relating to structural shielding).

§ 219.52. [Reserved].**Source**

The provisions of this § 219.52 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (249256).

**Subchapter E. TESTING FOR LEAKAGE OR
CONTAMINATION OF SEALED SOURCES****Sec.**

219.61. Testing for leakage or contamination of sealed sources.

219.62—219.66. [Reserved].

§ 219.61. Testing for leakage or contamination of sealed sources.

(a) In addition to incorporation by reference of 10 CFR Part 20 (relating to standards for protection against radiation), a licensee possessing a sealed source shall assure that:

(1) Except as specified in subsection (b), each sealed source is tested for leakage or contamination and the test results are received before the sealed source is put into use unless the licensee has a certificate from the transferor indicating that the sealed source was tested within 6 months before transfer to the licensee.

(2) Each sealed source that is not designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed 6 months or at alternative intervals specified in the Sealed Source and Device Registry approved by the Department, a state or the NRC.

(3) Each sealed source that is designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed 3 months or at alternative intervals specified in the Sealed Source and Device Registry approved by the Department, a state or the NRC.

(4) For each sealed source that is required to be tested for leakage or contamination, the sealed source is tested for leakage or contamination before further use at any time there is reason to suspect that the sealed source might have been damaged or might be leaking.

(5) Except for brachytherapy sources manufactured to contain radium, tests for leakage for sealed sources shall be capable of detecting the presence of 185 Bq (0.005 μ Ci) of radioactive material on a test sample. Test samples shall be taken from the sealed source or from the surfaces of the container in which the sealed source is stored or mounted on which one might expect contamination

to accumulate. For a sealed source contained in a device, test samples are obtained when the source is in the "off" position.

(6) The test for leakage for brachytherapy sources manufactured to contain radium shall be capable of detecting an absolute leakage rate of 37 Bq (0.001 μ Ci) of radon-222 in a 24-hour period when the collection efficiency for radon-222 and its progeny has been determined with respect to collection method, volume and time.

(7) Tests for contamination from radium progeny shall be taken on the interior surface of brachytherapy source storage containers and shall be capable of detecting the presence of 185 Bq (0.005 μ Ci) of any radium progeny which has a half-life greater than 4 days.

(b) A licensee need not perform tests for leakage or contamination on the following sealed sources:

(1) Sealed sources containing only radioactive material with a half-life of less than 30 days.

(2) Sealed sources containing only radioactive material as a gas.

(3) Sealed sources containing 3.7 MBq (100 μ Ci) or less of beta or photon-emitting material or 370 kBq (10 μ Ci) or less of alpha-emitting material.

(4) Sealed sources containing only hydrogen-3.

(5) Seeds of iridium-192 encased in nylon ribbon.

(6) Sealed sources, which are stored, are not being used, and are identified as in storage. The licensee shall test each of these sealed sources for leakage or contamination and receive the test results before any use or transfer unless it has been tested for leakage or contamination within 6 months before the date of use or transfer.

(c) Tests for leakage or contamination from sealed sources shall be performed by persons specifically authorized by the Department, an agreement state, a licensing state or the NRC to perform these services.

(d) Test results shall be kept in units of becquerel or microcurie and maintained for inspection by the Department.

(e) The following shall be considered evidence that a sealed source is leaking:

(1) The presence of 185 Bq (0.005 μ Ci) or more of removable contamination on any test sample.

(2) Leakage of 37 Bq (0.001 μ Ci) of radon-222 per 24 hours for brachytherapy sources manufactured to contain radium.

(3) The presence of removable contamination resulting from the decay of 185 Bq (0.005 μ Ci) or more of radium.

(f) The licensee shall immediately withdraw a leaking sealed source from use and take action to prevent the spread of contamination. The leaking sealed source shall be repaired or disposed of in accordance with this article.

(g) Reports of test results for leaking or contaminated sealed sources shall be made under § 219.227 (relating to reports of leaking or contaminated sealed sources).

Source

The provisions of this § 219.61 adopted June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3283. Immediately preceding text appears at serial pages (282373) to (282374).

Cross References

This section cited in 25 Pa. Code § 219.227 (relating to reports of leaking or contaminated sealed sources).

§§ 219.62—219.66. [Reserved].

Source

The provisions of these §§ 219.62—219.66 adopted June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; reserved November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial pages (170407) to (170410).

Subchapter F. [Reserved]

§ 219.71. [Reserved].

Source

The provisions of this § 219.71 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 3135; amended June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (204053).

§ 219.72. [Reserved].

Source

The provisions of this § 219.72 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (204054).

§ 219.73. [Reserved]

Source

The provisions of this § 219.73 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204054) and (249257).

§§ 219.74—219.76. [Reserved].**Source**

The provisions of these §§ 219.74—219.76 reserved November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial pages (170414) to (170415).

§ 219.81. [Reserved].**Source**

The provisions of this § 219.81 reserved November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085. Immediately preceding text appears at serial pages (170415) to (170417).

Subchapter G. [Reserved]**§§ 219.91—219.93. [Reserved].****Source**

The provisions of these §§ 219.91—219.93 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249257) to (249258) and (204057) to (204059).

Subchapter H. [Reserved]**§§ 219.111—219.113. [Reserved].****Source**

The provisions of these §§ 219.111—219.113 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204060) to (204062).

**Subchapter I. STORAGE AND CONTROL OF
LICENSED OR REGISTERED SOURCES OF
RADIATION****Sec.**

219.131. Security of stored sources of radiation.

219.132. Control of sources of radiation not in storage.

Source

The provisions of this Subchapter I adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted. Immediately preceding text appears at serial page (204062).

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§ 219.131. Security of stored sources of radiation.

In addition to incorporation by reference of 10 CFR Part 20 (relating to standards for protection against radiation), the licensee or registrant shall secure from unauthorized removal or access radiation sources that are in storage.

§ 219.132. Control of sources of radiation not in storage.

In addition to incorporation by reference of 10 CFR Part 20 (relating to standards for protection against radiation), the licensee or registrant shall maintain control of radiation producing machines that are not in storage.

Subchapter J. PRECAUTIONARY PROCEDURES

Sec.

219.151—219.158. [Reserved].

219.159. Posting of radiation-producing machines.

219.160. Exceptions to posting requirements.

219.161. Exemptions from labeling requirements.

219.162. Procedures for receiving and opening packages.

Source

The provisions of this Subchapter J adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085, unless otherwise noted.

§§ 219.151—219.158. [Reserved].**Source**

The provisions of these §§ 219.151—219.158 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249259) to (249260) and (204065).

§ 219.159. Posting of radiation-producing machines.

The registrant or licensee shall ensure that each radiation producing machine is labeled in a conspicuous manner which cautions individuals that radiation is produced when it is energized. For example:

**“CAUTION—RADIATION
THIS EQUIPMENT PRODUCES RADIATION
WHEN ENERGIZED.”**

Source

The provisions of this § 219.159 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (204065).

§ 219.160. Exceptions to posting requirements.

In addition to incorporation by reference of 10 CFR Part 20 (relating to standards for protection against radiation), a room or area is not required to be posted with a caution sign because of the presence of radiation machines used solely for diagnosis in the healing arts.

Source

The provisions of this § 219.160 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204065) to (204066).

§§ 219.161 and 219.162. [Reserved].**Source**

The provisions of these §§ 219.161 and 219.162 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204066) to (204068).

Subchapter K. [Reserved]**§§ 219.181—219.186. [Reserved].****Source**

The provisions of these §§ 219.181—219.186 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204068) to (204070) and (249261).

Subchapter L. [Reserved]**§§ 219.201—219.211. [Reserved].****Source**

The provisions of these §§ 219.201—219.211 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249261) to (249266).

Subchapter M. REPORTS

- | | |
|------------------|---|
| Sec. | |
| 219.221. | Reports of stolen, lost or missing licensed or registered sources of radiation. |
| 219.222. | Notification of incidents and reportable events. |
| 219.223—219.226. | [Reserved]. |
| 219.227. | Reports of leaking or contaminated sealed sources. |

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- 219.228. Reports of medical reportable events for radiation-producing machine therapy.
219.229. Other medical reports.

Source

The provisions of this Subchapter M adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085, unless otherwise noted.

§ 219.221. Reports of stolen, lost or missing licensed or registered sources of radiation.

In addition to incorporation by reference of the requirements in 10 CFR Part 20 (relating to standards for protection against radiation) covering the reporting requirements associated with reports of theft or loss of licensed material, the following reporting requirements apply to radiation-producing machines:

(1) *Telephone reports.* Each licensee or registrant shall report to the Department by telephone immediately, after its occurrence becomes known, a stolen, lost or missing radiation producing machine.

(2) *Written reports.* Each licensee or registrant required to make a report under paragraph (1) shall, within 30 days after making the telephone report, make a written report to the Department setting forth the following information:

(i) A description of the licensed or registered source of radiation involved, including, for radiation producing machines, the manufacturer, model and serial number, type and maximum energy of radiation emitted.

(ii) A description of the circumstances under which the loss or theft occurred.

(iii) A statement of disposition, or probable disposition, of the licensed or registered source of radiation involved.

(iv) Exposures of individuals to radiation, circumstances under which the exposures occurred and the possible total effective dose equivalent to persons in unrestricted areas.

(v) Actions that have been taken, or will be taken, to recover the source of radiation.

(vi) Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed or registered sources of radiation.

(3) *Additional information.* Subsequent to filing the written report, the licensee or registrant shall also report additional substantive information on the loss or theft within 30 days after the licensee or registrant learns of the information.

(4) *Detachable reports.* The licensee or registrant shall prepare a report filed with the Department under this section so that the names of individuals who may have received exposure to radiation are stated in a separate and detachable portion of the report.

Source

The provisions of this § 219.221 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249266) to (249267) and (204077).

Cross References

This section cited in 25 Pa. Code § 225.76 (relating to reporting requirements).

§ 219.222. Notification of incidents and reportable events.

In addition to incorporation by reference of the requirements in 10 CFR 20.2202 and 20.2203 (relating to notification of incidents; and reports of exposures, radiation levels and concentrations of radioactive material exceeding the constraints or limits), those notification requirements, as well as written 30-day reports under 10 CFR 20.2203(a), also apply to radiation-producing machines and NARM.

Source

The provisions of this 219.222 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204077) to (204078).

Cross References

This section cited in 25 Pa. Code § 225.76 (relating to reporting requirements).

§§ 219.223—219.226. [Reserved].**Source**

The provisions of these §§ 219.223—219.226 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204078) to (204080) and (249269).

§ 219.227. Reports of leaking or contaminated sealed sources.

If the test for leakage or contamination, required under § 219.61 (relating to testing for leakage or contamination of sealed sources), indicates a sealed source is leaking or contaminated, a report of the test shall be filed within 5 days with the Department describing the equipment involved, the test results and the corrective action taken.

Cross References

This section cited in 25 Pa. Code § 219.61 (relating to testing for leakage or contamination of sealed sources).

§ 219.228. Reports of medical reportable events for radiation-producing machine therapy.

(a) For a medical reportable event for radiation-producing machine therapy, the licensee or registrant shall do the following:

(1) Notify the Department by telephone within 24 hours after discovery of the event.

(2) Submit a written report to the Department within 15 days after discovery of the event. The written report shall include the licensee's or registrant's name; the prescribing physician's name; a brief description of the event; why the event occurred; the effect on the patient; what improvements are needed to prevent recurrence; actions taken to prevent recurrence; whether the licensee or registrant notified the patient, or the patient's responsible relative or guardian (for notification purposes under this section, this person will be included in subsequent references to "the patient"), and if not, why not; and if the patient was notified, what information was provided to the patient. The report may not include the patient's name or other information that could lead to identification of the patient.

(3) Notify the referring physician and also notify the patient of the event within 24 hours after its discovery, unless the referring physician personally informs the licensee either that he will inform the patient or that, based on medical judgment, telling the patient would be harmful. The licensee or registrant is not required to notify the patient without first consulting the referring physician. If the referring physician or patient cannot be reached within 24 hours, the licensee or registrant shall notify the patient as soon as possible thereafter. The licensee or registrant may not delay appropriate medical care for the patient, including necessary remedial care, because of delay in notification.

(4) If the patient was notified, the licensee or registrant shall also furnish, within 15 days after discovery of the event, a written report to the patient by sending one of the following:

(i) A copy of the report that was submitted to the Department.

(ii) A brief description of both the event and the consequences, as they may affect the patient, if a statement is included that the report submitted to the Department can be obtained from the licensee or registrant.

(b) The licensee or registrant shall retain a record of each medical reportable event for radiation-producing machine therapy for 5 years. The record shall contain the names of the individuals involved (including the prescribing physician, allied health personnel, the patient and the patient's referring physician), the patient's Social Security number or identification number if one has been assigned, a brief description of the event, why it occurred, the effect on the patient, what improvements are needed to prevent recurrence and the actions taken to prevent recurrence.

(c) . Aside from the notification requirement, this section does not affect rights or duties of licensees or registrants and physicians in relation to each other, patients or the patient's responsible relatives or guardians.

Source

The provisions of this § 219.228 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3283. Immediately preceding text appears at serial pages (282380) to (282381).

Cross References

This section cited in 25 Pa. Code § 219.229 (relating to other medical reports); and 25 Pa. Code § 228.35 (relating to operating procedures).

§ 219.229. Other medical reports.

Within 30 days of the determination by a physician of either actual or suspected acute or long-term functional damage to an organ or a physiological system of a patient exposed to therapeutic or diagnostic radiation from a radiation-producing machine, the registrant or licensee shall document the finding and provide a report to the Department and provide a clinical summary to the prescribing physician and the patient. The report shall be retained for at least 5 years. Exempt from this reporting requirement are any events already reported under § 219.228 (relating to reports of medical reportable events for radiation-producing machine therapy) and any functional damage to a patient organ or a physiological system that was an expected outcome when the causative procedures were prescribed.

Source

The provisions of this § 219.229 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3283. Immediately preceding text appears at serial pages (282381) to (282382).

Subchapter N. [Reserved]**§ 219.241. [Reserved].****Source**

The provisions of this § 219.241 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (249270).

APPENDIX A. [Reserved]**Source**

The provisions of this Appendix A amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204084) to (204087).

APPENDIX B. [Reserved]**Source**

The provisions of this Appendix B amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204088) to (204161).

APPENDIX C. [Reserved]**Source**

The provisions of this Appendix C adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1987, effective June 20, 1992, 22 Pa.B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204162) to (204169).

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CHAPTER 220. NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS AND INVESTIGATIONS

| | |
|--------------|--|
| Sec. | |
| 220.1. | Purpose and scope. |
| 220.2. | Posting of notices to workers. |
| 220.3—220.5. | [Reserved]. |
| 220.6—220.8. | [Reserved]. |
| 220.9. | Incorporation by reference. |
| 220.10. | Effect of incorporation of 10 CFR Part 19. |

Authority

The provisions of this Chapter 220 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 220 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 217.1 (relating to purpose and scope); 25 Pa. Code § 217.144 (relating to incidental radioactive material produced by a particle accelerator); 25 Pa. Code § 224.1 (relating to purpose and scope); 25 Pa. Code § 225.1 (relating to purpose and scope); 25 Pa. Code § 225.74 (relating to training and testing); 25 Pa. Code § 226.1 (relating to purpose and scope); 25 Pa. Code § 228.31a (relating to limitations); 25 Pa. Code § 232.1 (relating to purpose and scope); and 25 Pa. Code § 240.401 (relating to inspection).

§ 220.1. Purpose and scope.

This chapter establishes requirements for notices, instructions and reports by licensees or registrants to individuals engaged in activities under a license or registration. This chapter also establishes options available to the individuals in connection with Department inspections of licensees or registrants to ascertain compliance with the provisions of the act and regulations, orders and licenses issued thereunder regarding radiological working conditions. This chapter applies to persons who receive, possess, use, own or transfer radiation sources licensed by or registered with the Department under Chapters 216 and 217 (relating to registration of radiation-producing machines and radiation-producing machine service providers; and licensing of radioactive material).

§ 220.2. Posting of notices to workers.

(a) A licensee or registrant shall post current copies of the following documents:

- (1) This chapter and Chapter 219 (relating to standards for protection against radiation).

(2) The license, certificate of registration, conditions or documents incorporated into the license by reference and amendments thereto.

(3) The operating procedures applicable to activities under the license or registration.

(4) A notice of violation involving radiological working conditions, proposed imposition of civil penalty or order issued under Chapter 215 (relating to general provisions) and response from the licensee or registrant.

(b) If posting of a document specified in subsection (a)(1), (2) or (3) is not practicable, the licensee or registrant may post a notice which describes the document and states where it may be examined.

(c) Department Form 2900-FM-RP0003, "Notice to Employees," shall be posted by a licensee or registrant as required by this article.

(d) Department documents posted under subsection (a)(4) shall be posted within 2 working days after receipt of the documents from the Department; the licensee's or registrant's response shall be posted within 2 working days after dispatch from the licensee or registrant. The documents shall remain posted for a minimum of 5 working days or until action correcting the violation has been completed, whichever is later.

(e) Documents, notices or forms posted under this section shall appear in a sufficient number of places to permit individuals engaged in work under the license or registration to observe them on the way to or from the particular work location to which the document applies. The documents, notices or forms shall be conspicuous and shall be replaced if defaced or altered.

Source

The provisions of this § 220.2 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3283. Immediately preceding text appears at serial pages (282385) to (282386).

§§ 220.3—220.5. [Reserved].

Source

The provisions of these §§ 220.3—220.5 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (249272) and (203895).

§§ 220.6—220.8. [Reserved].

Source

The provisions of these §§ 220.6—220.8 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203895) to (203897).

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§ 220.9. Incorporation by reference.

(a) Except as provided in this chapter, the requirements of 10 CFR Part 19 (relating to notices, instructions and reports to workers; inspections and investigations) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 19.4, 19.5, 19.8, 19.30 and 19.40 are not incorporated by reference.

Source

The provisions of this § 220.9 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 220.10. Effect of incorporation of 10 CFR Part 19.

To reconcile differences between this chapter and the incorporated sections of 10 CFR Part 19 (relating to notices, instructions and reports to workers; inspections and investigations), the following words and phrases shall be substituted for the language in 10 CFR Part 19 as follows:

(1) A reference to "NRC" or "Commission" means Department.

(2) A reference to "NRC or agreement state" means Department, NRC or agreement state.

(3) A reference to "license," "licenses," "licensed" and "licensed radioactive material" also include "registration," "registrant" "registered," and "registered source of radiation," respectively.

(4) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 220.10 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

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CHAPTER 221. X-RAYS IN THE HEALING ARTS**GENERAL PROVISIONS**

- Sec.
221.1. Purpose and scope.
221.2. Definitions.
221.3. Sale and installation.

ADMINISTRATIVE CONTROLS

- 221.11. Registrant responsibilities.
221.12. Records, maintenance and associated information.
221.13. Information to be submitted by persons requesting approval to conduct healing arts screening.
221.14. [Reserved].
221.15. Use of X-rays in research on humans.

DIAGNOSTIC INSTALLATIONS GENERAL REQUIREMENTS

- 221.21. Diagnostic equipment requirements.
221.22. Battery charge indicator.
221.23. Leakage radiation from the diagnostic source assembly.
221.24. Radiation from components other than the diagnostic source assembly.
221.25. Beam quality.
221.26. Multiple tubes.
221.27. Mechanical support of tube head.
221.28. Technique indicators.
221.29. Kilovoltage (kV) accuracy.
221.30. Exposure reproducibility.
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221.31a. Locks.
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221.32a. Radiographic beam limitation.
221.33. [Reserved].
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221.34. [Reserved].
221.34a. Radiation exposure control.
221.35. [Reserved].
221.35a. Fluoroscopic X-ray systems.
221.36. [Reserved].
221.36a. Limitation of useful beam of fluoroscopic equipment.
221.37. [Reserved].
221.37a. Activation of fluoroscopic tube.
221.38. [Reserved].
221.38a. Entrance exposure rate.

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- 221.39. [Reserved].
- 221.39a. Barrier transmitted radiation rate limits.
- 221.40. [Reserved].
- 221.40a. Indication of tube voltage and current.
- 221.41. [Reserved].
- 221.41a. Fluoroscopic timer.
- 221.42. [Reserved].
- 221.42a. Control of scattered radiation.
- 221.43. [Reserved].
- 221.43a. Mobile fluoroscopes.
- 221.44—221.49. [Reserved].

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- 221.51—221.55. [Reserved].
- 221.56. [Reserved].

OTHER SYSTEMS

- 221.61. Radiation therapy simulation systems.
- 221.62. [Reserved].

THERAPEUTIC X-RAY SYSTEMS WITH ENERGIES LESS THAN 1 MEV

- 221.71. Equipment requirements.
- 221.72. Facility design requirements for systems capable of operating above 50 kVp.
- 221.73. Surveys.
- 221.74. Calibration.
- 221.75. Spot checks.
- 221.76. Operating procedures.
- 221.81—221.102. [Reserved].

COMPUTED TOMOGRAPHY X-RAY SYSTEMS

- 221.201. Definitions.
- 221.202. Equipment requirements.
- 221.203. Facility design requirements.
- 221.204. Radiation measurements and performance evaluations.
- 221.205. Operating procedures.

Authority

The provisions of this Chapter 221 issued under section 301 of the The Atomic Energy Development and Radiation Control Act (73 P. S. § 1301) (Repealed), unless otherwise noted.

Source

The provisions of this Chapter 221 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 225.104 (relating to X-ray detection systems for explosives, weapons and illegal items); 28 Pa. Code § 501.4 (relating to regulations); and 28 Pa. Code § 565.12 (relating to radiology service policy).

GENERAL**§ 221.1. Purpose and scope.**

This chapter establishes requirements for the use of X-ray equipment by or under the supervision of a licensed practitioner of the healing arts. A registrant who uses X-rays in the healing arts shall comply with this chapter. This chapter is in addition to, and not in substitution for, other applicable provisions of this article.

Authority

The provisions of this § 221.1 amended under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (117772), (42615) and (4877) to (4880).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

AAPM—American Association of Physicists in Medicine.

ACR—American College of Radiology.

Aluminum equivalent—The thickness of type 1100 aluminum alloy—the nominal chemical composition of type 1100 aluminum alloy is 99% minimum aluminum, .12% copper—affording the same attenuation, under specified conditions, as the material in question.

Automatic exposure control—A device which automatically controls one or more technique factors in order to obtain at preselected locations a desired quantity of radiation.

Beam axis—A line from the source through the centers of the X-ray fields.

Beam-limiting device—A device providing a means to restrict the dimensions of the X-ray field.

Cephalometric device—A device intended for the radiographic visualization and measurement of the dimensions of the human head.

Certified components—Components of X-ray systems which are subject to regulations promulgated under the Radiation Control for Health and Safety Act of 1968 (42 U.S.C.A. §§ 263b—263n).

Certified system—An X-ray system which has one or more certified components.

Changeable filter—A filter, exclusive of inherent filtration, which can be added to or removed from the useful beam through an electronic, mechanical or physical process.

Coefficient of variation (C)—The ratio of the standard deviation to the mean value of a population of observations. It is estimated using the following equation:

$$C = \frac{s}{\bar{X}} = \frac{1}{\bar{X}} \left[\sum_{i=1}^n \frac{(X_i - \bar{X})^2}{n-1} \right]^{1/2}$$

where

s = Estimated standard deviation of the population.

\bar{X} = Mean value of observations in sample.

X_i = i^{th} observation in sample.

n = Number of observations in sample; $n > 1$.

Contact therapy system—An X-ray system used for therapy with the X-ray tube port placed in contact with or within 5 centimeters of the surface being treated.

Control panel—The part of the X-ray control upon which are mounted the switches, knobs, pushbuttons and other hardware necessary for manually setting the technique factors.

Dead-man switch—A switch so constructed that a circuit closing contact can be maintained only by continuous pressure on the switch by the operator.

Dental panoramic system—A device intended to produce a radiographic image of both dental arches on one film.

Diagnostic source assembly—The tube housing assembly with a beam-limiting device attached.

Diagnostic X-ray system—An X-ray system designed for irradiation of a part of the human body for the purpose of diagnosis or visualization.

Direct scattered radiation—The scattered radiation coming directly from material irradiated by the useful beam and not scattered by other material.

Entrance exposure rate—The exposure in air per unit time at the point where the center of the useful beam enters the patient.

Field emission equipment—Equipment using an X-ray tube in which electrons are emitted from the cathode solely by the force between an electric field and the electrons.

Filter—Material placed in the useful beam to modify the spectral energy distribution and flux of the transmitted radiation and preferentially absorb selected radiation.

Filtration—The amount of material placed in the useful beam to modify the radiation's characteristics, typically expressed in terms of millimeters of aluminum or copper equivalent.

Fluoroscopic imaging assembly—A subsystem in which X-ray photons produce a fluoroscopic image. The term includes the image receptors such as the image intensifier and spot-film device, electrical interlocks, if any, and structural material providing linkage between the image receptor and diagnostic source assembly.

Fluoroscopic system—See fluoroscopic imaging assembly.

Focal spot—The area projected on the anode of the X-ray tube by the electrons accelerated from the cathode and from which the useful beam originates.

Half-value layer (HVL)—

(i) The thickness of specified material which attenuates the exposure rate by 1/2 when introduced into the path of a given beam of radiation. In this definition, the contribution of all scattered radiation, other than any which might be present initially in the beam concerned, is deemed to be excluded.

(ii) The term is used to describe the penetrating ability of the radiation.

Healing arts screening—The testing of human beings using X-ray machines for the detection or evaluation of health indications when the tests are not specifically and individually ordered for the purpose of diagnosis or treatment by a licensed practitioner of the healing arts legally authorized to prescribe the X-ray tests.

Image intensifier—A device, installed in its housing, which instantaneously converts an X-ray pattern into a corresponding light image of higher energy density.

Image receptor—A device, such as a fluorescent screen or radiographic film, which transforms incident X-ray photons either into a visible image or into another form which can be made into a visible image by further transformations.

Intensifying screen—A fluorescent screen which transforms incident X-ray photons into a visible image.

Intraoral dental radiography—A modality of dental radiography in which the image receptor is placed inside a patient's oral cavity.

kV—Kilovolts

kVp—Peak tube potential (see kilovolts peak).

Kilovolts peak (kVp)—The maximum value of the potential difference across the X-ray tube during an exposure.

Lead equivalent—The thickness of lead affording the same attenuation, under specified conditions, as the material in question.

Leakage radiation—Radiation emanating from the diagnostic or therapeutic source assembly except for the following:

- (i) The useful beam.
- (ii) Radiation produced when the exposure switch or timer is not activated.

Leakage technique factors—The technique factors associated with the tube housing assembly which are used in measuring leakage radiation defined as follows:

- (i) For capacitor energy storage equipment, the maximum-rated peak tube potential and the maximum-rated number of exposures in an hour for operation at the maximum-rated peak tube potential with the charge per exposure being 10 millicoulombs—10 milliamperere seconds—or the minimum charge obtainable from the unit, whichever is larger.
- (ii) For field emission equipment rated for pulsed operation, the maximum-rated peak tube potential and the maximum-rated number of X-ray pulses in an hour for operation at the maximum-rated peak tube potential.
- (iii) For other equipment, the maximum-rated peak tube potential and the maximum-rated continuous tube current for the maximum-rated peak tube potential.

Licensed practitioner of the healing arts—An individual licensed by the Commonwealth to practice the healing arts, which for the purposes of this article shall be limited to medicine, surgery, dentistry, osteopathy, podiatry and chiropractic.

Light field—The area defined by the intersection of the light beam with a plane parallel with the plane of the image receptor. The edge of the field is defined by the points at which the light intensity is 25% of the maximum light intensity in the plane.

Line-voltage regulation—The difference between the no-load and the load line potentials expressed as a percent of the load line potential calculated using the following equation:

$$\text{Percent line-voltage regulation} = 100 (V_n - V_l) / V_l$$

where

V_n = No-load line potential and

V_l = Load line potential.

mA—Milliamperere.

mA-s—Milliamperere second.

mR—Milliroentgen.

Maximum line current—The root-mean-square current in the supply line of an X-ray machine operating at its maximum rating.

Mobile X-ray system—see X-ray equipment.

Patient—An individual subjected to healing arts examination, diagnosis or treatment.

Peak tube potential—The maximum value of the potential difference across the X-ray tube during an exposure.

Phototimer—A method for controlling the radiation exposures to an image receptor by measuring the radiation which reaches a radiation monitoring device. The radiation monitoring device is part of an electronic circuit which controls the duration of time the tube is activated.

Portable radiation system—See X-ray equipment.

Position indicating device (PID)—A device on dental X-ray equipment used to indicate the beam position and to establish a definite source-surface (skin) distance.

Positive beam limitation—The automatic or semiautomatic adjustment of an X-ray beam to the size of the selected image receptor, whereby an X-ray exposure cannot be made without an adjustment.

Protective apron—An apron incorporating radiation absorbing materials.

Protective barrier—A barrier of radiation absorbing material used to reduce radiation exposure. The term includes the following types:

(i) *Primary protective barrier*—Material used to reduce radiation exposure from the useful beam.

(ii) *Secondary protective barrier*—Material used to reduce exposure from stray, leakage or scattered radiation.

Protective glove—A glove incorporating radiation absorbing materials.

Radiation detector—A device which provides a signal or other indication suitable for measuring one or more quantities of incident radiation.

Radiation therapy simulation system—A radiographic or fluoroscopic X-ray system intended for localizing the volume to be exposed during radiation therapy and confirming the position and size of the therapeutic irradiation field.

Radiograph—An image receptor on which an image is created directly or indirectly by an X-ray pattern and results in a permanent record.

Radiographic imaging system—A system whereby an image is produced on an image receptor by the action of ionizing radiation.

Rating—The operating limits specified by the component manufacturer.

Registrant—A person who is legally obligated to register with the Department under this article and the act.

Research—One of the following:

- (i) Theoretical analysis, exploration or experimentation.
- (ii) The extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental testing of models, devices, equipment, materials and processes. The term includes the external administration of X-ray radiation to human beings for diagnostic or therapeutic purposes or in an equivalent manner as a diagnostic or therapeutic procedure.

Response time—The time required for an instrument system to reach 90% of its final reading when the instrument system is exposed to a step change from zero radiation flux to a flux sufficient to provide a steady state midscale reading.

SSD—The distance between the source and the skin of the patient.

SID—Source-image receptor distance—The distance from the source to the center of the input surface of the image receptor.

Scattered radiation—Radiation that, during passage through matter, has been deviated in direction.

Screening—See the definition of “healing arts screening.”

Serial radiography—Radiographic images produced in regular sequence.

Shutter—A device attached to the tube housing assembly which can totally intercept the useful beam and which has a lead equivalency not less than that of the tube housing assembly.

Source—The focal spot of the X-ray tube.

Specific prescription—A written or oral directive authorizing a radiographic or fluoroscopic examination of a specified individual.

Spot check—A procedure to assure that a previous calibration continues to be valid.

Spot film—A radiograph which is made during a fluoroscopic examination to permanently record conditions which exist during that fluoroscopic procedure.

Spot-film device—A device intended to transport or position a radiographic image receptor between the X-ray source and fluoroscopic image receptor. The term includes a device intended to hold a cassette in front of the input end of an image intensifier for the purpose of making a radiograph.

Stray radiation—The sum of leakage and scattered radiation.

Technique factors—The following conditions of operation:

- (i) For capacitor energy storage equipment, peak tube potential in kV and quantity of charge in mAs.
- (ii) For field emission equipment rated for pulsed operation, peak tube potential in kV, number of X-ray pulses and either tube current or product of tube current and time.

(iii) For other equipment, peak tube potential in kV and either tube current in mA and exposure time in seconds or the product of tube current and exposure time in mAs.

Therapeutic X-ray system—A system design for irradiation of a part of the human body for the purpose of treatment or alleviation of symptoms of disease.

Timer—An electronic device which is capable of measuring an X-ray exposure.

Tube—An X-ray tube, unless otherwise specified.

Tube housing assembly—The tube housing with the X-ray tube installed. The term includes high-voltage or filament transformers, or both, and other appropriate elements when contained within the tube housing.

Useful beam—The radiation which passes through the tube housing port and the aperture of the beam-limiting device when the exposure switch or timer is activated.

Variable-aperture beam-limiting device—A beam-limiting device which has capacity for stepless adjustment of the X-ray field size.

Visible area—The portion of the input surface of the image receptor over which incident X-ray photons are producing a visible image.

Wedge filter—An added filter effecting continuous progressive attenuation on all or part of the useful beam.

X-ray control—A device which controls input power to the X-ray high-voltage generator or the X-ray tube, or both. The term includes equipment such as timers, phototimers, automatic brightness stabilizers and similar devices, which control the technique factors of an X-ray exposure.

X-ray equipment—An X-ray system, subsystem or component thereof. Types of X-ray equipment are as follows:

- (i) *Mobile X-ray equipment*—X-ray equipment mounted on a permanent base with wheels or casters for moving while completely assembled.
- (ii) *Portable X-ray equipment*—X-ray equipment designed to be hand-carried.
- (iii) *Stationary X-ray equipment*—X-ray equipment which is installed in a fixed location or vehicle.

X-ray field—The area defined by the intersection of the useful beam with a plane parallel with the plane of the image receptor. The edge of the field is defined by the points at which the exposure rate is 25% of the maximum exposure rate in the plane.

X-ray high-voltage generator—A device which transforms electrical energy from the potential supplied by the X-ray control to the tube operating potential.

X-ray subsystem—A combination of two or more components of an X-ray system.

X-ray system—An assembly of components for the controlled production of X-rays. The term includes minimally an X-ray high-voltage generator, an X-ray control, a tube housing assembly, a beam-limiting device and the necessary

supporting structures. Additional components which function with the system are considered integral parts of the system.

X-ray tube—An electron tube which is designed to be used primarily for the production of X-rays.

Authority

The provisions of this § 221.2 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.2 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282389) to (282390) and (249277) to (249282).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems); and 25 Pa. Code § 221.201 (relating to definitions).

§ 221.3. Sale and installation.

No person may sell or install a radiation-producing machine that does not meet the provisions of this article.

Authority

The provisions of this § 221.3 amended under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.3 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4881).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

ADMINISTRATIVE CONTROLS

§ 221.11. Registrant responsibilities.

(a) The registrant is responsible for directing the operation of X-ray systems under his administrative control and shall assure that the requirements of this article are met in the operation of the X-ray systems.

(b) An individual who operates an X-ray system shall be instructed adequately in the safe operating procedures and be competent in the safe use of the equipment. The instructions shall include items included in Appendix A (relat-

ing to determination of competence) and there shall be continuing education in radiation safety, biological effects of radiation, quality assurance and quality control.

(c) A chart, which specifies the techniques for examinations performed with the system, shall be provided in the vicinity of each diagnostic X-ray system's control panel. This chart shall include information pertinent to the particular examination, such as:

- (1) The patient's body part and anatomical size, or body part thickness, or age (for pediatrics), versus technique factors to be utilized.
- (2) The type and size of the film or film-screen combination.
- (3) The type of grid, if any.
- (4) The type and location of placement of patient shielding-for example, gonad, and the like.
- (5) For mammography, indication of kVp/target/filter combination.
- (6) Source to image receptor distance to be used, except for dental intraoral radiography.

(d) Written safety procedures and rules shall be available at a facility including restrictions of the operating technique required for the safe operation of the particular X-ray system. The operator shall be able to demonstrate familiarity with the rules.

(e) Except for patients who cannot be moved out of the room, only the staff and ancillary personnel or other persons required for the medical procedure or training shall be in the room during the radiographic exposure. The following apply for individuals other than the patient being examined:

- (1) Individuals shall be positioned so that no part of the body will be struck by the useful beam unless protected by at least 0.5 millimeter lead equivalent material. The lead equivalent of the material is to be determined at 60 kV.
- (2) All persons required for the medical procedure shall be protected from the stray radiation by protective aprons or whole protective barriers of at least 0.25 millimeter lead equivalent or shall be so positioned that the persons are not in the direct line of the useful beam and the nearest portion of the body is at least 2 meters from both the tube head and the nearest edge of the image receptor.
- (3) A patient who cannot be removed from the room shall be protected from the stray radiation by protective barriers of at least 0.25 millimeter lead equivalent material unless the shield would compromise the health of the individual or shall be so positioned that the patient is not in the direct line of the useful beam and the nearest portion of the body is at least 2 meters from both the tube head and the nearest edge of the image receptor.
- (4) No individual, other than the patient being examined, may be in the useful beam, unless required to conduct the procedure.

(f) During diagnostic procedures in which the gonads are in the useful beam, gonad shielding of at least 0.5 millimeter lead equivalent shall be used for patients except for cases in which this would interfere with the diagnostic procedure.

(g) An individual may not be exposed to the useful beam except for healing arts purposes or under § 221.15 (relating to use of X-rays in research on humans). An exposure shall be authorized by a licensed practitioner of the healing arts. This provision specifically prohibits deliberate exposure for the following purposes:

(1) Exposure of an individual for training, demonstration or other nonhealing arts purposes.

(2) Exposure of an individual for the purpose of healing arts screening except as authorized by the Department. When requesting authorization, the registrant shall submit the information outlined in § 221.13 (relating to information to be submitted by persons requesting approval to conduct healing arts screening).

(h) If a patient or image receptor requires auxiliary support during a radiation exposure the following apply:

(1) Mechanical holding devices shall be used when the technique permits.

(2) The human holder shall be protected as required by subsection (e).

(3) An individual may not be used routinely to hold image receptors or patients.

(i) Procedures and auxiliary equipment designed to minimize patient and personnel exposure commensurate with the needed diagnostic information shall be utilized.

(j) The screen and film system used shall be spectrally compatible. Defective screens may not be used for diagnostic radiological imaging.

(k) With the exception of intraoral dental radiography, film may not be used without intensifying screens for routine diagnostic radiological imaging.

(l) The registrant shall have a quality assurance program. This quality assurance program shall be documented and be in accordance with guidelines established by the Department or by another appropriate organization recognized by the Department. At a minimum, the quality assurance program shall address repeat rate; image recording, processing and viewing; and maintenance and modifications to the quality assurance program. Records shall be maintained by the registrant for inspection by the Department for 3 years. The Department's guidelines and a list of recognized organizations will be maintained and made available on the Department's website and on request.

(m) Neither the X-ray tube housing nor the collimating device may be hand-held during the exposure.

Authority

The provisions of this § 221.11 amended under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 221.11 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249282), (285667) to (285669).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems); and 25 Pa. Code § 221.42a (relating to control of scattered radiation).

§ 221.12. Records, maintenance and associated information.

The registrant shall maintain records of surveys, calibrations, maintenance and modifications performed on the X-ray systems including the names of persons who performed the services. The registrant shall keep these records for inspection by the Department for 5 years.

Authority

The provisions of this § 221.12 amended under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 221.12 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123681).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.13. Information to be submitted by persons requesting approval to conduct healing arts screening.

(a) The Department will consider efficacy as a factor in evaluating healing arts screening procedures. In its review, the Department will consider National medical organization consensus statements as well as peer reviewed scientific and medical literature that addresses the efficacy of the proposed screening procedures. The review may also consider relevant information from appropriate Federal agencies. For procedures that result in an individual organ dose or deep dose equivalent greater than 1 mSv (100 mrem) to a screened individual the Department will consult with the Department of Health (DOH) for assistance in review-

ing the efficacy of the proposed procedures but the final decision will remain that of the Department. The DOH will have access to all relevant materials when rendering its review.

(b) A person requesting that the Department approve a healing arts screening program shall submit in writing the following information for evaluation by the Department. If information submitted to the Department becomes invalid or outdated, the registrant shall immediately notify the Department.

(1) The name and address of the applicant and, if applicable, the names and addresses of agents within this Commonwealth.

(2) The diseases or conditions for which the X-ray examinations are to be used.

(3) The description in detail of the X-ray examinations proposed in the screening program.

(4) A description of the population to be examined in the screening program—age, sex, physical condition and other appropriate information.

(5) An evaluation of all known alternate methods that could achieve the goals of the screening program and why these methods are not used in preference to the proposed X-ray examinations.

(6) An evaluation by a qualified expert of the X-ray systems to be used in the screening program. The evaluation shall show that the systems satisfy the requirements of this article. The evaluation shall include a measurement of patient entrance exposures and calculation of the maximum shallow dose, deep dose equivalent and organ dose from the X-ray examinations to be performed.

(7) A description of the diagnostic X-ray quality control program.

(8) A copy of the technique chart for the X-ray examination procedures to be used if exposure parameters are set manually or a description of how exposure parameters are determined.

(9) The qualifications of all individuals who will be operating the X-ray systems.

(10) The qualifications of the physician who will be supervising the operators of the X-ray systems. The extent of supervision and the method of work performance evaluation shall be specified.

(11) The name, address and qualifications of the individual who will interpret the screening procedure results.

(12) A description of the information and procedure for advising the individuals screened of the potential for false positive or negative results and the implications for the patient; the procedure for recording informed consent for the procedure following disclosure of this information; and the procedure for advising the individuals screened and their private practitioners of the healing arts of the results of the screening procedure and further medical needs indicated.

(13) A description of the procedures for the retention or disposition of the diagnostic images, data and other records pertaining to the X-ray examination.

(14) Mammography facilities shall comply with 21 CFR Part 900 (relating to mammography).

(15) An approximation of the frequency of screening activities and duration of the entire screening program.

Authority

The provisions of this § 221.13 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.13 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285669) to (285670).

Cross References

This section cited in 25 Pa. Code § 221.11 (relating to registrant responsibilities); and 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.14. [Reserved].

Source

The provisions of this § 221.14 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4882).

§ 221.15. Use of X-rays in research on humans.

(a) Registrants conducting research using X-rays involving human subjects are exempted from the requirements of this section if the research is conducted, funded, regulated or supported by a Federal agency which has implemented the Federal policy for the protection of human subjects or if the research is carried out in an institution which conducts other Federally funded or supported human research and follows all Federal requirements for protocol review and research subject protection.

(b) If not exempted under subsection (a), a person shall submit, in writing, the following information and evaluation to the Department and receive approval by the Department before conducting the research. If the information submitted to the Department becomes invalid or outdated, the person shall immediately, in writing, notify the Department.

(1) The name and address of the applicant and, if applicable, the names and addresses of agents within this Commonwealth.

(2) A description of the population to be examined in the research program, age, sex, physical condition and other appropriate information.

(3) An evaluation of all known alternate methods that could achieve the goals of the research program and why these methods are not used in preference to the X-ray examinations.

(4) An evaluation by a qualified expert of the X-ray system to be used in the research program. This evaluation shall show that the system satisfies the requirements of this article. The evaluation shall include a projected measurement of individual and cumulative patient exposures from the X-ray examinations to be performed.

(5) A description of the diagnostic X-ray quality control program.

(6) A copy of the technique chart which specifies the information for the X-ray examination procedures to be used if exposure parameters are set manually or a description of how exposure parameters are determined.

(7) The qualifications of all individuals who will be operating the X-ray system.

(8) The qualifications of the physician who will be supervising the operators of the X-ray systems. The extent of supervision and the method of work performance evaluation shall be specified.

(9) The name, address and qualifications of the individual who will interpret the data.

(10) A copy of the research protocol authorized by a committee consisting of at least three qualified persons. At least one of the committee members shall be knowledgeable in radiation effects on humans.

(11) The provisions for independent institutional review.

(c) Proposed subjects or their legal representative shall sign a statement acknowledging that they have been informed of their anticipated radiation exposure and possible consequences arising from this exposure.

Authority

The provisions of this § 221.15 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.15 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3238. Immediately preceding text appears at serial pages (249287) to (249288).

Cross References

This section cited in 25 Pa. Code § 221.11 (relating to registrant responsibilities); and 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

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DIAGNOSTIC INSTALLATIONS GENERAL REQUIREMENTS**§ 221.21. Diagnostic equipment requirements.**

Diagnostic systems incorporating one or more certified components shall comply with 21 CFR 1020.30—1020.33.

Authority

The provisions of this § 221.21 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123683).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.22. Battery charge indicator.

On battery-powered X-ray generators, the control panel shall have means to indicate visually whether the battery is adequately charged for proper operation.

Authority

The provisions of this § 221.22 amended under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.22 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4882).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.23. Leakage radiation from the diagnostic source assembly.

The leakage radiation from the diagnostic source assembly measured at a distance of 1 meter in any direction from the source may not exceed 100 milliroentgens (25.8 $\mu\text{C/kg}$) in 1 hour when the X-ray tube is operated at its leakage technique factors. Compliance shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

Authority

The provisions of this § 221.23 amended under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.23 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4882).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.24. Radiation from components other than the diagnostic source assembly.

The radiation emitted by a component other than the diagnostic source assembly may not exceed 2 milliroentgens (.516 $\mu\text{C/kg}$) in 1 hour at 5 centimeters from an accessible surface of the component when it is operated in an assembled X-ray system under conditions for which it was designed. Compliance shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

Authority

The provisions of this § 221.24 amended under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.24 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4882) to (4883).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.25. Beam quality.

(a) Diagnostic X-ray systems shall have filtration that satisfies the requirements of Table I. The requirements of this section shall be considered to have been met if it can be demonstrated that the half value layer of the primary beam is not less than that shown in Table II.

TABLE I

Filtration Required vs. Operating Voltage

| <i>Operating Voltage (kVp)</i> | <i>Total Filtration (inherent plus added) (millimeters aluminum equivalent)</i> |
|--------------------------------|---|
| Below 50..... | .5 millimeters |
| 50—70..... | 1.5 millimeters |
| Above 70..... | 2.5 millimeters |

TABLE II

| <i>Design operating range (Kilovolts peak)</i> | <i>Measured potential (Kilovolts peak)</i> | <i>Minimum half-value layer (millimeters of aluminum)</i> | |
|--|--|---|------------------------------------|
| | | <i>Specified dental systems*</i> | <i>All other X-ray systems</i> |
| Below 51 | 30 | 1.5 | 0.3 |
| | 40 | 1.5 | 0.4 |
| | 50 | 1.5 | 0.5 |
| 51 to 70 | 51 | 1.5 | 1.2 |
| | 60 | 1.5 | 1.3 |
| | 70 | 1.5 | 1.5 |
| Above 70 | 71 | 2.1 | 2.1 |
| | 80 | 2.3 | 2.3 |
| | 90 | 2.5 | 2.5 |
| | 100 | 2.7 | 2.7 |
| | 110 | 3.0 | 3.0 |
| | 120 | 3.2 | 3.2 |
| | 130 | 3.5 | 3.5 |
| | 140 | 3.8 | 3.8 |
| | 150 | 4.1 | 4.1 |

Note: Half-value layers for kilovoltages not listed in Table II may be determined by interpolation or extrapolation.

* Dental systems manufactured after December 1, 1980, designed for use with intraoral image receptors.

(b) Beryllium window tubes shall have a minimum of 0.5 millimeter aluminum equivalent filtration permanently installed in the useful beam.

(c) For capacitor energy storage equipment, compliance with this section shall be determined with the maximum quantity of charge per exposure.

(d) The required minimal aluminum equivalent filtration shall include the filtration contributed by materials which are always present between the source and the patient.

(e) For X-ray systems having variable filtration in the useful beam, a means shall be provided to prohibit exposure unless the filtration requirements of subsection (a) are met for the kVp selected.

Authority

The provisions of this § 221.25 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.25 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3238. Immediately preceding text appears at serial pages (249290) and (285671).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.26. Multiple tubes.

If two or more radiographic tubes are controlled by one exposure switch, the tube or tubes which have been selected shall be clearly indicated prior to initiation of the exposure. This indication shall be both on the X-ray control panel and at or near the tube housing assembly which has been selected.

Authority

The provisions of this § 221.26 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.26 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235.

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.27. Mechanical support of tube head.

The tube housing assembly supports shall be adjusted so that the tube housing assembly will remain stable during an exposure unless tube housing movement is a designed function of the X-ray system.

Authority

The provisions of this § 221.27 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

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Source

The provisions of this § 221.27 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235.

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.28. Technique indicators.

(a) The technique factors for radiographic systems shall be indicated before exposure except for units utilizing automatic exposure controls, in which case the maximum mAs shall be indicated.

(b) The requirement of subsection (a) may be met by permanent markings on equipment having fixed technique factors. Indication of technique factors shall be visible from the operator's position except in the case of spot films made by a fluoroscopist.

Authority

The provisions of this § 221.28 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.27 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123686).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.29. Kilovoltage (kV) accuracy.

(a) For variable kV units, the kV output may not vary from the set-indicated value by more than 10% over the range of technique factors normally used. Discrepancies of more than 10% between set-indicated and measured kV values shall be investigated by a qualified expert or service agent and appropriate action taken.

(b) For fixed kV units, the kV output may not vary from the set-indicated value by more than 20% over the range of technique factors normally used. Discrepancies of more than 20% between set-indicated and measured kV values shall be investigated by a qualified expert or service agent and appropriate action taken.

Authority

The provisions of this § 221.29 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.29 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285672) to (285673).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.30. Exposure reproducibility.

The coefficient of variation of exposure reproducibility may not exceed 0.10 when technique factors are held constant. This requirement shall be deemed to have been met when four exposures are made. This requirement applies when either manual techniques or automatic exposure control is used.

Authority

The provisions of this § 221.30 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.30 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.31. [Reserved].**Source**

The provisions of this § 221.31 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123686) to (123688).

§ 221.31a. Locks.

Position locking, holding and centering devices on X-ray systems shall function as intended.

Authority

The provisions of this § 221.31a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.31a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

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Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.32. [Reserved].**Source**

The provisions of this § 221.32 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123688).

§ 221.32a. Radiographic beam limitation.

- (a) The useful beam shall be limited to the area of clinical interest.
- (b) The beam limiting device shall do one of the following:
 - (1) Indicate numerically the field size in the plane of the image receptor to which it is adjusted to within 2% of the SID.
 - (2) Provide for visually defining the perimeter of the X-ray field except for systems designed for one image receptor size. The total misalignment of the edges of the visually defined field with the respective edges of the X-ray field may not exceed 2% of the distance from the source to the center of the visually defined field when the surface upon which it appears is perpendicular to the axis of the X-ray beam.
- (c) A means shall be provided for stepless (continuous) adjustment of the size of the X-ray field except for systems which use removable fixed operation beam limiting devices.
- (d) A means shall be provided to:
 - (1) Indicate when the axis of the X-ray beam is perpendicular to the plane of the image receptor if the angle between the axis of the X-ray beam and the plane of the image receptor is variable. This paragraph does not apply to portable, mobile or intraoral dental units.
 - (2) Align the center of the X-ray field with respect to the center of the image receptor to within 2% of the SID.
 - (3) Indicate the SID to within 2%.
- (e) Intraoral dental X-ray systems designed for use with an intraoral image receptor shall be provided with means to limit SSD to not less than either of the following:
 - (1) Eighteen centimeters if operable above 50 kVp.
 - (2) Ten centimeters if not operable above 50 kVp.
- (f) Indication of field size dimensions and SIDs shall be specified so that aperture adjustments result in X-ray field dimensions in the plane of the image receptor which correspond to those indicated by the beam-limiting device to within 2% of the SID when the beam axis is indicated to be perpendicular to the plane of the image receptor.

(g) Intraoral dental systems designed for use with an intraoral image receptor shall be provided with a means to limit the X-ray beam so that:

(1) Eighteen centimeters or more, the X-ray field at the minimum SSD shall be containable in a circle having a diameter of no more than 7 centimeters.

(2) Less than 18 centimeters, the X-ray field at the minimum SSD shall be containable in a circle having a diameter of no more than 6 centimeters.

(h) When positive beam limitation is used, the following conditions shall be met:

(1) The radiation beam may not be larger than the linear dimensions of the image receptor being used.

(2) The positive beam limitation device shall allow the operator to further reduce the size of the radiation field.

(i) Mobile or portable radiographic systems, other than intraoral dental X-ray systems, shall be provided with a means to limit the source-to-skin distance to at least 30 centimeters.

(j) Radiographic equipment designed for one or more image receptor sizes at a fixed SID shall be provided with a means to accomplish one of the following:

(1) Limit the field at the plane of the image receptor to dimensions no greater than those of the image receptor and align the center of the X-ray field with the center of the image receptor to within 2% of the SID.

(2) The X-ray field shall be sized and aligned so that at the plane of the image receptor, it does not extend beyond the edge of the image receptor by more than 2% of the SID.

Authority

The provisions of this § 221.32a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.32a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282. Immediately preceding text appears at serial pages (254508) and (249295).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.33. [Reserved].

Source

The provisions of this § 221.33 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123688) to (123689).

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§ 221.33a. Radiation from capacitor energy storage equipment in standby status.

Radiation emitted from an X-ray tube when the exposure switch or timer is not activated may not exceed a rate of 2 milliroentgens (0.516 $\mu\text{C/kg}$) per hour at 5 centimeters from an accessible surface of a fully charged diagnostic source assembly, with the beam-limiting device fully open.

Authority

The provisions of this § 221.33a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.33a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282. Immediately preceding text appears at serial pages (249295) to (249296).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.34. [Reserved].

Source

The provisions of this § 221.34 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123690).

§ 221.34a. Radiation exposure control.

(a) *Radiation exposure control.* A means shall be provided to initiate the radiation exposure by a deliberate action on the part of the operator, such as the depression of a switch. Radiation exposure may not be initiated without such an action.

(b) *Visual indication and audible signal.* A means shall be provided for visual indication observable from the operator's protected position whenever X-rays are produced. In addition, a signal audible to the operator shall indicate that the exposure has terminated.

(c) *Termination of exposure.* A means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses or a preset radiation exposure to the image receptor. Except for dental panoramic systems, termination of an exposure shall cause automatic resetting of the time to its initial setting or to "zero."

(d) *Manual exposure control.* An X-ray control shall be incorporated into each X-ray system which allows the operator to terminate an exposure at any time except for one or more of the following:

- (1) Exposure of 1/2 second or less.

(2) During serial radiography in which case a means shall be provided to permit completion of any single exposure of the series in process.

(e) *Automatic exposure control.*

(1) Indication shall be made on the control panel when this mode of operation is selected.

(i) A means shall be provided to terminate irradiation at an appropriate exposure for the projection if the automatic exposure control fails to terminate irradiation.

(ii) A visible signal shall indicate when an exposure has been terminated at the limits required by subparagraph (i), and manual resetting shall be required before further automatically timed exposures can be made.

(2) For X-ray systems operating in automatic exposure control mode, and which lack engineered safeguards that prevent exposure in the event of either a malfunction or a mispositioned X-ray beam with respect to film cassette sensors, the back-up or default mAs shall be set by the operator to an appropriate maximum value for the projection.

(3) X-ray systems utilizing automatic exposure control, in which the back-up mAs values are preset and cannot be selected by the operator, shall prominently indicate the preset mAs value on the console, along with an appropriate warning notice to the operator.

(f) *Exposure control location.*

(1) Stationary X-ray systems shall have X-ray controls permanently mounted in a protected area and situated so that the operator is required to remain in that protected area during the entire exposure.

(2) For mobile and portable X-ray systems the exposure switch shall be arranged so that the operator can stand at least 2 meters from the patient and from the tube head and away from the direction of the useful X-ray beam.

Authority

The provisions of this § 221.34a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.34a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems).

§ 221.35. [Reserved].

Source

The provisions of this § 221.35 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123690) to (123691).

§ 221.35a. Fluoroscopic X-ray systems.

Fluoroscopic X-ray systems shall use an image intensifier and in addition to the requirements of §§ 221.1—221.34a, shall meet the requirements of §§ 221.36a—221.38a (relating to limitation of useful beam of fluoroscopic equipment; activation of fluoroscopic tube; and entrance exposure rate).

Authority

The provisions of this § 221.35a issued under sections 301 and 302 of the Radiation Protection Act (31 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 221.35a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.43a (relating to mobile fluoroscopes); and 25 Pa. Code § 221.61 (relating to radiation therapy simulation systems).

§ 221.36. [Reserved].**Source**

The provisions of this § 221.36 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123691).

§ 221.36a. Limitation of useful beam of fluoroscopic equipment.

(a) The fluoroscopic imaging assembly shall be provided with a primary protective barrier which intercepts the entire cross section of the useful beam at any source-to-image receptor distance.

(b) The X-ray tube used for fluoroscopy may not produce X-rays unless a barrier is in position to intercept the useful beam and the imaging device is in place and operable.

(c) A means shall be provided for stepless (continuous) adjustment of the field size.

(d) The minimum field size at the greatest source to image receptor distance shall be containable in a square of 5 centimeters by 5 centimeters unless otherwise provided in 21 CFR 1020.32(b) (relating to fluoroscopic equipment).

(e) Equipment may not be operated at a source to skin distance less than 30 centimeters or as required under 21 CFR 1020.32(g).

(f) The width of the X-ray field in the plane of the image receptor may not exceed that of the visible area of the image receptor by more than 3% of the source to image receptor distance. The sum of the excess length and the excess width may not be greater than 4% of the source to image receptor distance.

(g) For rectangular X-ray fields used with a circular image receptor, the error in alignment shall be determined along the length and width dimensions of the X-ray field which passes through the center of the visible area of the image receptor.

(h) Compliance with subsections (a)—(g) shall be determined with the beam axis perpendicular to the plane of the image receptor.

(i) Spot-film devices shall meet the following additional requirements:

(1) A means shall be provided between the source and the patient for adjustment of the X-ray field size to the size of the portion of film which has been selected on the spot-film selector.

(2) The adjustments shall be automatically accomplished except when the X-ray field size in the plane of the film is smaller than that of the film.

(3) The total misalignment of the edges of the X-ray field with the respective edges of the selected portion of the image receptor along the length or width dimensions of the X-ray field in the plane of the image receptor may not exceed 3% of the source-to image receptor when adjusted for full coverage of the selected portion of the image receptor.

(4) The sum, without regard to sign, of the misalignment along any two orthogonal dimensions, may not exceed 4% of the source to image receptor distance.

(5) The center of the X-ray field in the plane of the film shall be aligned with the center of the film within 2% of the source to image receptor distance.

Authority

The provisions of this § 221.36a issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.36a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285678) to (285679).

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems); and 25 Pa. Code § 221.43a (relating to mobile fluoroscopes).

§ 221.37. [Reserved].

Source

The provisions of this § 221.37 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123691) to (123692).

§ 221.37a. Activation of fluoroscopic tube.

X-ray production in the fluoroscopic mode shall be controlled by a device which requires continuous pressure by the fluoroscopist for the entire time of the exposure (dead-man switch). When recording serial fluoroscopic images, the fluoroscopist shall be able to terminate X-ray exposures at any time, but means may be provided to permit completion of any single exposure of the series in process.

Authority

The provisions of this § 221.37a issued under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 221.37a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems); 25 Pa. Code § 221.43a (relating to mobile fluoroscopes); and 25 Pa. Code § 221.61 (relating to radiation therapy simulation systems).

§ 221.38. [Reserved].**Source**

The provisions of this § 221.38 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123692).

§ 221.38a. Entrance exposure rate.

(a) *Fluoroscopic systems without high level control.* The exposure rate may not exceed 10 roentgens (2.58 mC/kg) per minute except during recording of fluoroscopic images.

(b) *Fluoroscopic systems with high level control.*

(1) When the high level control is activated, the maximum exposure rate shall be 20 roentgens (5.16 mC/kg) per minute.

(2) When the high level control is not activated, the maximum exposure rate shall be 10 roentgens (2.58 mC/kg) per minute.

(3) Special means of activation of high level controls are required. The high level control shall only be operable when continuous manual activation is provided by the operator.

(4) There shall be an indication to the fluoroscopist that the high level control is being used.

(c) *Frequency of output measurements.* Output measurements to show compliance with this section shall be made at least annually and after maintenance that could affect the output of the machine.

(d) *Compliance requirements.* Compliance with subsections (a)—(c) shall be determined as follows:

(1) If the source is below the table, the exposure rate shall be expressed for the center of the useful beam 1 centimeter above the tabletop or cradle with the image intensifier 30 centimeters above the tabletop or cradle.

(2) If the source is above the table, the exposure rate shall be measured at 30 centimeters above the tabletop with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement.

(3) In a c-arm type of fluoroscope, the exposure rate shall be measured at 30 centimeters from the input surface of the fluoroscopic imaging assembly with the source at its closest possible position of operation.

(4) The tube potential and current shall be set to give the maximum exposure possible from the X-ray system. For systems with automatic exposure control, at least 3 millimeters of lead shall be placed between the measuring device and image receptor.

(5) The measurement shall be made at the center of the useful beam.

Authority

The provisions of this § 221.38a issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.38a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823.

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems); and 25 Pa. Code § 221.43a (relating to mobile fluoroscopes).

§ 221.39. [Reserved].

Source

The provisions of this § 221.39 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123692) to (123693).

§ 221.39a. Barrier transmitted radiation rate limits.

The protective barrier may not transmit more than 2 milliroentgens (.516 $\mu\text{mC/kg}$) per hour at 10 centimeters from an accessible surface of the fluoroscopic imaging assembly for each roentgen per minute of entrance exposure rate.

Authority

The provisions of this § 221.39a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.39a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.43a (relating to mobile fluoroscopes).

§ 221.40. [Reserved].

Source

The provisions of this § 221.40 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123693).

§ 221.40a. Indication of tube voltage and current.

During fluoroscopy and cinefluorography, the voltage and the current shall be continuously indicated.

Authority

The provisions of this § 221.40a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.40a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.43a (relating to mobile fluoroscopes); and 25 Pa. Code § 221.61 (relating to radiation therapy simulation systems).

§ 221.41. [Reserved].**Source**

The provisions of this § 221.41 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123693).

§ 221.41a. Fluoroscopic timer.

A cumulative timing device activated by the fluoroscope switch shall be provided. It shall indicate the passage of a predetermined period of irradiation either by an audible signal or by temporary or permanent interruption of the irradiation when the increment of exposure time exceeds a predetermined limit not exceeding 5 minutes.

Authority

The provisions of this § 221.41a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.41a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.35a (relating to fluoroscopic X-ray systems); 25 Pa. Code § 221.43a (relating to mobile fluoroscopes); and 25 Pa. Code § 221.61 (relating to radiation therapy simulation systems).

§ 221.42. [Reserved].**Source**

The provisions of this § 221.42 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (123694).

§ 221.42a. Control of scattered radiation.

(a) Fluoroscopic table designs when combined with normal operating procedures shall be of a type so no unprotected part of the staff or an ancillary individual's whole body is exposed to unattenuated scattered radiation which originates from under the table. The attenuation required may be not less than .25 millimeter lead equivalent.

(b) Equipment configuration when combined with normal operating procedures shall be of a type so that no portion of the staff or an ancillary individual's whole body, except the extremities, is exposed to the unattenuated scattered radiation emanating from above the table top unless one of the following criteria is met:

(1) The individual is at least 120 centimeters from the center of the useful beam.

(2) The radiation has passed through at least .25 millimeter of lead equivalent material—for example, drapes, bucky-slot cover (film-tray cover panel), sliding or folding panel or self supporting curtains—in addition to lead equivalency provided by the protective apron referred to in § 221.11(e) (relating to registrant responsibilities).

Authority

The provisions of this § 221.42a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.42a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.43a (relating to mobile fluoroscopes).

§ 221.43. [Reserved].**Source**

The provisions of this § 221.43 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123694) to (123695).

§ 221.43a. Mobile fluoroscopes.

In addition to the other requirements of §§ 221.35a—221.42a, mobile fluoroscopes shall provide image intensification.

Authority

The provisions of this § 221.43a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.43a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§§ 221.44—221.49. [Reserved].**Source**

The provisions of these §§ 221.44—221.49 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123694) to (123698).

§§ 221.51—221.55. [Reserved].**Source**

The provisions of these §§ 221.51—221.55 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123698) to (123701).

§ 221.56. [Reserved].**Source**

The provisions of this § 221.56 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282. Immediately preceding text appears at serial pages (249304) and (254511).

OTHER SYSTEMS**§ 221.61. Radiation therapy simulation systems.**

(a) Fluoroscopic systems used solely for radiation therapy simulations shall comply with §§ 221.35a, 221.37a, 221.40a and 221.41a. The requirements in § 221.41a (relating to fluoroscopic timer) may also be satisfied if a means is provided to indicate the cumulative time that an individual patient has been exposed to X-rays. In this case, procedures shall require that the timer be reset between examinations.

(b) CT units used solely for therapy simulations shall comply with §§ 221.202(f)(1), (7) and (8) and 221.203 (relating to equipment requirements; and facility design requirements).

Authority

The provisions of this § 221.61 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.61 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (285683).

§ 221.62. [Reserved].**Source**

The provisions of this § 221.62 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123701) to (123702).

**THERAPEUTIC X-RAY SYSTEMS WITH ENERGIES
LESS THAN 1 MEV**

§ 221.71. Equipment requirements.

(a) When the tube is operated at its leakage technique factors, the leakage radiation may not exceed:

(1) One hundred milliroentgens (25.8 μ C/kg) per hour at 5 centimeters from the surface of the tube housing assembly for contact therapy systems.

(2) One roentgen (.258 mC/kg) per hour at 1 meter from the source for 0-150 kVp systems manufactured or installed prior to December 19, 1987.

(3) One hundred milliroentgens (25.8 μ C/kg) per hour at 1 meter from the source for 0-150 kVp systems manufactured on or after December 19, 1987.

(4) One roentgen (.258 mC/kg) per hour at 1 meter from the source for 151 to 500 kVp systems.

(5) One-tenth percent of the exposure rate of the useful beam 1 meter from the source for 501 to 999 kVp systems at 1 meter from the source.

(b) Fixed diaphragms or cones used for limiting the useful beam shall provide at least the same protection as required by the tube housing assembly.

(c) Beam limiting devices may, for the portion of the useful beam blocked by these devices, transmit not more than 5% of the original X-ray beam intensity at the maximum voltage and maximum treatment filter. This requirement does not apply to auxiliary blocks or materials placed in the useful beam to shape the useful beam to the individual patient.

(d) The filter system shall be designed so that:

(1) Filters cannot be accidentally displaced from the useful beam at any possible tube orientation.

(2) The radiation at 5 centimeters from the filter insertion slot opening does not exceed 30 roentgens (7.74 mC/kg) per hour under operating conditions.

(3) A filter is marked as to its material of construction and its thickness. For wedge filters, the wedge factor and wedge angle shall appear on the wedge or wedge tray.

(4) On equipment purchased after January 1, 1971, a filter indication system shall be used on therapy machines using changeable filters. The system shall indicate from the control panel the presence or absence of a filter and shall be designed to permit easy recognition of an added filter in place.

(5) An X-ray system equipped with a beryllium or other low-filtration window shall be clearly labeled as such upon the tube housing assembly and at the control panel.

(e) The tube housing assembly shall be immobilized during stationary treatments.

(f) The tube housing assembly shall be so marked that it is possible to determine the location of the focal spot to within 5 millimeters, and the marking shall be readily accessible for use during calibration procedures.

(g) Contact therapy tube housing assemblies shall have a removable shield of at least .5 millimeter lead equivalency at 100 kVp that can be positioned over the entire useful beam exit port during periods when the beam is not in use.

(h) Systems of greater than 150 kVp manufactured after December 19, 1987, shall have a beam monitor system which shall meet the following requirements:

(1) Not allow irradiation until a preselected value of exposure has been made at the treatment control panel.

(2) Independently terminate irradiation when the preselected exposure has been reached.

(3) Be designed so that, in the event of a system malfunction or electrical power failure or other interruption, the dose administered to a patient prior to the interruption can be accurately determined.

(4) Have a control panel display which maintains the reading until intentionally reset to zero.

(5) Have a control panel display which does not have scale multiplying factors and utilizes a design so that increasing dose is displayed by increasing numbers.

(i) The following apply to times on the equipment:

(1) A timer shall be provided which has a display at the control panel. The timer shall be graduated in minutes and fractions of minutes. The timer shall have a preset time selector and an elapsed time indicator.

(2) The timer shall be a cumulative timer which activates with the radiation and retains its reading after irradiation is interrupted or terminated. After irradiation is terminated and before irradiation can be reinitiated, it shall be necessary to reset the timer to zero.

(3) The timer shall terminate irradiation when a preselected time has elapsed if a dose monitoring system present has not previously terminated irradiation.

(4) The timer shall permit accurate presetting and determination of exposure time as short as 1 second.

(5) The timer may not permit an exposure if set at zero.

(6) The timer may not activate until the shutter is opened when patient irradiation is controlled by a shutter mechanism.

(j) The control panel, in addition to the displays required in this section, shall have:

(1) An indication of power status.

(2) An indication of X-ray production.

(3) The means of indicating X-ray tube current and voltage.

(4) The means of terminating an exposure.

(k) When a control panel may energize more than one X-ray tube, the following requirements shall be met:

(1) It shall be possible to activate only one X-ray tube at one time.

(2) There shall be an indication at the control panel identifying which X-ray tube is energized.

(3) There shall be an indication at the tube housing assembly when that tube is energized.

(l) There shall be a means of determining the SSD to within 5 millimeters.

(m) Unless it is possible to bring the X-ray output to the prescribed exposure parameters within 5 seconds, the entire useful beam shall be automatically attenuated by a shutter having a lead equivalency not less than that of the tube housing assembly.

(1) After the unit is at operating parameters, the shutter shall be controlled electrically by the operator from the control panel.

(2) An indication of shutter position shall appear at the control panel.

Authority

The provisions of this § 221.71 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.71 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235.

§ 221.72. Facility design requirements for systems capable of operating above 50 kVp.

(a) Provision shall be made to permit continuous observation of and communication with the patient during irradiation.

(b) Windows, mirror systems or closed-circuit television viewing screens used for observing the patient shall be so located that the operator can maintain direct surveillance over both the control panel and the patient.

(c) Treatment rooms which contain an X-ray system capable of operating above 150 kVp shall meet the following additional requirements:

(1) Necessary shielding, except for a beam interceptor, shall be provided by fixed barriers.

(2) The control panel shall be outside the treatment room or in a shielded booth.

(3) Doors of the treatment room shall be electrically interlocked to the control panel so that X-ray production cannot occur unless entrance doors are closed.

(4) Interlocks shall be provided so that, when a door of the treatment room is opened, either the machine will shut off automatically or the radiation level within the room will be reduced to an average of not more than two milliroentgens (.52 $\mu\text{C/kg}$) per hour and a maximum of ten milliroentgens (2.58 $\mu\text{C/kg}$) per hour at a distance of 1 meter in any direction from the target; or interlocks shall energize a conspicuous visible or audible alarm signal so that the individual entering and the operator are made aware of the entry. After a shut-off or reduction in output, it shall be possible to restore the machine to full operation only from the control panel.

(5) Treatment room entrances shall be provided with warning lights, which will indicate when the useful beam is on, in a readily observable position near the outside of access doors.

Authority

The provisions of this § 221.72 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.72 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235.

§ 221.73. Surveys.

(a) A facility shall have a survey made by, or under the direction of, a qualified expert. The survey shall also be done after a change in the facility or equipment which might cause a change in radiation levels.

(b) The qualified expert or radiological physicist shall report the survey results in writing to the individual in charge of the facility and a copy of the report shall be maintained by the registrant for inspection by the Department. The facility shall be operated in compliance with limitations indicated by the survey.

Authority

The provisions of this § 221.73 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.73 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (249309).

§ 221.74. Calibration.

(a) The calibration of an X-ray system shall be performed at intervals not to exceed 1 year and after a change of replacement of components which could cause a change in the radiation output.

(b) The calibration of the radiation output of the X-ray system shall be performed by or under the direction of a qualified expert for radiation therapy calibration who is physically present at the facility during the calibration.

(c) The calibration of the radiation output of an X-ray system shall be performed with a calibrated instrument. The calibration of the instrument shall be traceable to a National standard. The instrument shall have been calibrated within the preceding 2 years.

(d) Calibrations made under this section shall be made so that the dose at a reference point in soft tissue may be calculated as accurately as possible but with an uncertainty of no greater than 5%.

(e) The calibration of the X-ray system shall include, but is not limited to, the following determinations:

- (1) The exposure rates for each combination of field size, technique factors, filter and treatment distance used.
- (2) The degree of congruence between the radiation field and the field indicated by the localizing device if a device is present.
- (3) An evaluation of the uniformity of the largest radiation field used.
- (f) Records of calibration performed under this section shall be maintained by the registrant for at least 5 years after completion of the calibration.
- (g) A copy of the most recent X-ray system calibration shall be available at the control panel.

Authority

The provisions of this § 221.74 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.74 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249309) to (249310).

Cross References

This section cited in 25 Pa. Code § 221.75 (relating to spot checks).

§ 221.75. Spot checks.

Spot checks shall be performed on X-ray systems capable of operation at greater than 150 kVp. The spot checks shall meet the following requirements:

- (1) The procedures shall be in writing and shall have been developed by a qualified expert for radiation therapy calibration.
- (2) If a radiological physicist does not perform the spot check measurements, the results of the spot check measurements shall be reviewed by a radiological physicist within 15 days.
- (3) The measurements taken during the spot checks shall demonstrate the degree of consistency of the operating characteristics which can affect the radiation output of the X-ray system.
- (4) The spot-check procedure shall specify the frequency at which tests or measurements are to be performed and the acceptable tolerance for each parameter measured in the spot check when compared to the value for that parameter determined in the calibration specified in § 221.74 (relating to calibration).
- (5) The procedure shall also note conditions which require that the system be recalibrated under § 221.74.
- (6) Records of spot-check measurements performed under this section shall be maintained by the registrant for 5 years following the measurement.
- (7) Spot check measurements shall be performed using a dosimetry system that has been calibrated under § 221.74(c). Alternatively, a dosimetry system used solely for spot check measurements may be calibrated by direct intercomparison with a system that has been calibrated under § 221.74(c). The alternative calibration method shall have been performed within the previous year and after each servicing that may have affected the system calibration.

Authority

The provisions of this § 221.75 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.75 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249310) to (249311).

§ 221.76. Operating procedures.

- (a) Therapeutic X-ray systems shall be secured to prevent unauthorized use whenever the system is unattended.
- (b) If a patient is held in position for radiation therapy, mechanical supporting or restraining devices shall be used.
- (c) The tube housing assembly may not be held by an individual during exposures.
- (d) No individual other than the patient may be in the treatment room during irradiation unless protected by a shielded booth.
- (e) Interlocks, on-off beam control mechanisms and safety and warning devices shall be checked and appropriately serviced at least once in a calendar year.

Authority

The provisions of this § 221.76 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.76 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235.

§§ 221.81—221.102. [Reserved].**Source**

The provisions of these §§ 221.81—221.102 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (123709) to (123726).

COMPUTED TOMOGRAPHY X-RAY SYSTEMS**§ 221.201. Definitions.**

In addition to the definitions in §§ 215.2 and 221.2 (relating to definitions), the following words and terms when used in this section and §§ 221.202—221.205, have the following meanings, unless the context clearly indicates otherwise:

CS—Contrast scale—The change in the linear attenuation coefficient per CT number relative to water; that is:

$$CS = (U_x - U_w) / ((CT)_x - (CT)_w)$$

Where:

U_x = Linear attenuation coefficient of the material of interest

U_w = Linear attenuation coefficient of water

$(CT)_x$ = CT number of the material of interest

$(CT)_w$ = CT number of water

CT number—The number used to represent the X-ray attenuation associated with each elemental area of the CT image.

CT—Computed tomography—The production of a tomogram by the acquisition and computer processing of X-ray transmission data.

CTDI—Computed tomography dose index—The integral of the dose profile along a line perpendicular to the tomographic plane divided by the product of the nominal tomographic section thickness and the number of tomograms produced in a single scan.

CT conditions of operation—The selectable parameters governing the operation of a CT X-ray system including, but not limited to, nominal tomographic section thickness, filtration and the technique factors as defined in this chapter.

Elemental area—The smallest area within a tomogram for which the X-ray attenuation properties of a body are depicted.

Gantry—The tube housing assemblies, beam-limiting devices, detectors, transformers, if applicable, and the supporting structures and frames which hold these components.

Lux—A unit illumination equivalent to 1 lumen per square centimeter or .0929 foot-candles.

MSAD—Multiple scan average dose—The calculated average dose to the tissue within each slice in a series utilizing an ion chamber. The MSAD is calculated using the following equation:

$$MSAD = (F \times K \times L \times E) / (T \times N)$$

Where

F = Factor to convert exposure in air to absorbed dose in lucite in RADS/mR

K = Calibration factor to account for the ion chamber's response and volume.

L = Effective length of ion chamber in millimeters (mm)

E = Exposure reading in milliroentgen (mR)

T = Nominal slice thickness in millimeters (mm) and

N = Number of slices per scan

Multiple tomogram system—A computed tomography X-ray system which obtains X-ray transmission data simultaneously during a single scan to produce more than one tomogram.

Noise—The standard deviation of the fluctuations in the CT number expressed as a percentage of the attenuation coefficient of water. Its estimate (S_n) is calculated using the following expression:

$$S_n = 100 \times CS \times S/U_w$$

Where:

CS = Contrast scale

U_w = Linear attenuation coefficient of water.

S = Estimated standard deviation of the CT number of picture elements in a specified area of the CT image.

Nominal tomographic section thickness—The full-width at half-maximum of the sensitivity profile taken at the center of the cross-sectional volume over which X-ray transmission data are collected.

Performance phantom—A phantom which has a capability of providing an indication of contrast scale, noise, nominal tomographic section thickness, the resolution capability of the CT system for low and high contrast objects, and measuring the mean CT number for water or other reference materials.

Picture element—See elemental area.

Pixel—See elemental area.

Reference plane—A plane which is at a known fixed distance—which could be zero—to the tomographic plane and parallel to it.

Scan—The complete process of collecting X-ray transmission data for the production of a tomogram. Data may be collected simultaneously during a single scan for the production of one or more tomograms.

Scan increment—The amount of relative displacement of the patient with respect to the CT X-ray system between successive scans measured along the direction of the displacement.

Scan sequence—A preselected set of two or more scans performed consecutively under preselected CT conditions of operation.

Scan time—The period of time between the beginning and end of X-ray transmission data accumulation for a single scan.

Sensitivity profile—The relative response of the CT X-ray system as a function of position along a line perpendicular to the tomographic plane.

Single tomogram system—A CT X-ray system which obtains X-ray transmission data during a scan to produce a single tomogram.

Technique factors—The conditions of operation, specified as follows:

(i) For CT equipment designed for pulsed operations, peak tube potential, scan time in seconds, X-ray pulse width in seconds and the number of X-ray pulses per second or per mAs.

(ii) For CT equipment not designed for pulsed operation, peak tube potential, and either tube current and scan time in seconds or the product of tube current and exposure time in mAs.

Tomogram—The depiction of the X-ray attenuation properties of a section through a body.

Tomographic plane—The geometric plane which is identified as corresponding to the output tomogram.

Tomographic section—The volume of an object whose X-ray attenuation properties are imaged in a tomogram.

Authority

The provisions of this § 221.201 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.201 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.204 (relating to radiation measurements and performance evaluations).

§ 221.202. Equipment requirements.

(a) *Termination of exposure.* The operator shall be able to terminate the X-ray exposure at any time during a scan, or series of scans under X-ray system control, of greater than 0.5 second duration. Termination of the X-ray exposure shall necessitate resetting of the conditions of operation prior to initiation of another scan.

(b) *Tomographic plane indication and alignment.*

(1) For any single tomogram system, a means shall be provided to permit visual determination of the tomographic plane or a reference plane offset from the tomographic plane.

(2) For any multiple tomogram system, a means shall be provided to permit visual determination of the location of a reference plane. This reference plane may be offset from the location of the tomographic plane.

(c) *Status indicators and control switches.*

(1) The CT X-ray control and gantry shall provide visual indication whenever X-rays are produced and, if applicable, whether the shutter is open or closed.

(2) The emergency buttons or switches shall be clearly labeled as to their function.

(3) Each individual scan or series of scans shall require initiation by the operator.

(d) *Indication of CT conditions of operation.* The CT X-ray system shall be designed so that the CT conditions of operation to be used during a scan or a scan sequence are indicated prior to the initiation of a scan or a scan sequence. On equipment having all or some of these conditions of operation at fixed values, this requirement may be met by permanent markings. Indication of CT conditions of operation shall be visible from any position from which scan initiation is possible.

(e) *Leakage radiation.* The leakage radiation from the diagnostic source assembly measured at a distance of 1 meter in any direction from the source may not exceed 100 milliroentgens (25.8 $\mu\text{C/kg}$) in 1 hour when the X-ray tube is

operated at its leakage technique factors. Compliance shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

(f) *Additional requirements applicable to CT X-ray systems containing a gantry manufactured after September 3, 1985.*

(1) The total error in the indicated location of the tomographic plane or reference plane by the light field or laser indicator may not exceed 5 millimeters.

(2) If the X-ray production period is less than 0.5 second, the indication of X-ray production shall be actuated for at least 0.5 second. Beam-on and shutter status indicators at or near the gantry shall be discernible from any point external to the patient opening where insertion of any part of the human body into the primary beam is possible.

(3) The CT X-ray system shall be normalized to water.

(4) The CT number for water for a region of interest, not exceeding 100 square millimeters, shall be 0 ± 10.0 CT number units. The facility's performance phantom shall be utilized, with the technique factors specified by the qualified expert, to confirm compliance. In instances when a CTN of 0 for water is inappropriate, as in 3D treatment planning, the qualified expert may establish and maintain an equivalent value.

(5) With the performance phantom, the mean CT number of water of one group of pixels may not differ from the mean CT number of water of a second group of pixels equal size within the same image by more than the manufacturer's published specifications.

(6) The noise, utilizing the facility's performance phantom, may not exceed the manufacturer's published specifications.

(7) The total error between the indicated and actual slice thickness may not exceed 2.0 millimeters.

(8) A distance of at least 100 millimeters measured in a CT image shall agree with the actual distance to within $\pm 5\%$.

(9) Premature termination of the X-ray exposure by the operator shall necessitate resetting the CT conditions of operation prior to the initiation of another scan.

Authority

The provisions of this § 221.202 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.202 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285686) to (285688).

Cross References

This section cited in 25 Pa. Code § 221.61 (relating to radiation therapy simulation systems); 25 Pa. Code § 221.201 (relating to definitions); and 25 Pa. Code § 221.204 (relating to radiation measurements and performance evaluations).

§ 221.203. Facility design requirements.

(a) *Oral communication.* Provision shall be made for oral communication between the patient and the operator at the control panel.

(b) *Viewing systems.*

(1) A means shall be provided to permit continuous observation of the patient during irradiation and shall be located so that the operator can observe the patient from the control panel.

(2) If the primary viewing system is by electronic means, an alternate viewing system, which may be electronic, shall be available for use in the event of failure of the primary viewing system.

Authority

The provisions of this § 221.203 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.203 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 221.61 (relating to radiation therapy simulation systems); and 25 Pa. Code § 221.201 (relating to definitions).

§ 221.204. Radiation measurements and performance evaluations.

(a) *Radiation measurements.*

(1) The CTDI or MSAD along the two axes specified in paragraph (2)(ii) shall be measured. The CT dosimetry phantom shall be oriented so that the measurement point 1.0 centimeter from the outer surface and within the phantom is in the same angular position within the gantry at the point of maximum surface exposure identified. The CT conditions of operation shall be reproducible and correspond to typical values used by the registrant. If the point of maximum surface exposure constantly changes due to system design, then measurements shall be taken at four different locations—top left, top right, bottom left, bottom right—1 centimeter from the outer surface of the phantom.

(2) CT dosimetry phantoms shall be used in determining the radiation output of a CT X-ray system. The phantoms shall meet the definition for a CT dosimetry phantom under 21 CFR 1020.33(b)(6) (relating to computed tomography (CT) equipment).

(i) The phantoms shall be specifically designed for CT dosimetry and deemed appropriate by the facility's qualified expert and the Department.

(ii) CT dosimetry phantoms shall provide a means for the placement of dosimeters along the axis of rotation and along a line parallel to the axis of rotation 1.0 centimeter from the outer surface and within the phantom. The means for the placement of dosimeters or alignment devices at other locations may be provided.

(iii) Any effects on the doses measured due to the removal of phantom material to accommodate dosimeters shall be accounted for through appropriate corrections to the reported data or included in the statement of maximum deviation for the values obtained using the phantom.

(iv) Dose measurements shall be performed with the CT dosimetry phantom placed on the patient couch or support device without additional attenuation materials present.

(3) In addition to the items in subsection (b), the following items shall be evaluated annually or after any component repair or change which in the opinion of the qualified expert may effect the performance of the CT unit:

(i) HVL (half value layer) determination at the most commonly used kVp or 120 kVp.

(ii) CTDI or MSAD as specified in § 221.201 (relating to definitions) for commonly used techniques.

(iii) Tomographic plane indication (light/laser alignment).

(iv) Slice thickness as specified in § 221.202(g)(7) (relating to equipment requirements).

(v) Distance readout calibration.

(4) The measurement of the radiation output of a CT X-ray system shall be performed with a dosimetry system that has calibration traceable to National Institute of Standards and Technology. The calibration of the system shall be in accordance with an established calibration protocol. The calibration protocol published by the AAPM is accepted as an established protocol. Other protocols which are equivalent will be accepted, but the user shall submit that protocol to the Department for concurrence that the protocol is equivalent.

(5) An mR/mAs value shall be determined at least annually for the head and body.

(6) Procedures and results shall be maintained for 5 years and be available for review by the Department.

(b) *Performance evaluations.*

(1) Written performance evaluation procedures shall be developed by a qualified expert. These procedures shall be available for review by the Department.

(2) The performance evaluation procedures shall include at least the following using the facility's performance phantom:

- (i) Noise.
- (ii) Contrast scale.
- (iii) Spatial resolution (low and high contrast).
- (iv) Mean CT number for water.
- (v) Acceptable tolerances.

(3) The performance evaluation shall be performed at intervals not to exceed 3 months by the qualified expert or an individual designated by the qualified expert.

(4) The qualified expert need not be present during the performance evaluation, but shall be informed within 48 hours of any problems or unacceptable deviations.

(5) Performance evaluations shall include acquisition of images obtained with the performance phantom using the same processing mode and CT conditions of operation as are used to perform the measurements required by subsection (a).

(6) Records of the performance evaluations shall be maintained for inspection by the Department for at least 4 years.

Authority

The provisions of this § 221.204 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.204 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285688) and (249317) to (249318).

Cross References

This section cited in 25 Pa. Code § 221.201 (relating to definitions).

§ 221.205. Operating procedures.

(a) Information shall be available at the control panel regarding the operation and performance evaluations of the system. The information shall include the following:

- (1) The dates of the latest radiation measurements and performance evaluation and the location within the facility where the results of those tests may be obtained.

(2) Instructions on the use of the CT phantoms including a schedule of performance evaluations appropriate for the system, allowable variations for the indicated parameters and the results of at least the most recent performance evaluation conducted on the system.

(3) A current technique chart available at the control panel which specifies for each routine examination the CT conditions of operation and the number of scans per examination.

(b) If the radiation measurements and performance evaluation of the CT X-ray system indicates that a system operating parameter has exceeded a tolerance established by the qualified expert, the use of the CT X-ray system on patients shall be limited to those uses permitted by established written instructions of the qualified expert.

Authority

The provisions of this § 221.205 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 221.205 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249318) to (249319).

Cross References

This section cited in 25 Pa. Code § 221.201 (relating to definitions).

**APPENDIX A
DETERMINATION OF COMPETENCE**

The registrant shall ensure that individuals who operate diagnostic X-ray equipment have received training on the subjects listed in this appendix. The individual shall be trained and competent in the general operation of the X-ray equipment, and in the following subject areas, as applicable to the procedures performed and the specific equipment utilized:

- (1) Basic properties of radiation.
- (2) Units of measurement.
- (3) Sources of radiation exposure.
- (4) Methods of radiation protection.
- (5) Biological effects of radiation exposure.
- (6) X-ray equipment.
- (7) Image recording and processing.
- (8) Patient exposure and positioning.
- (9) Procedures.
- (10) Quality assurance.
- (11) Regulations.

Authority

The provisions of this Appendix A issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this Appendix A adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (249320).

Cross References

This appendix cited in 25 Pa. Code § 221.11 (relating to registrant responsibilities).

[Next page is 222-1.]

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CHAPTER 222. [Reserved]**Source**

The provisions of this Chapter 222 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial pages (123727) to (123735).

§ 222.1. [Reserved].**Source**

The provisions of this § 222.1 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123728).

§ 222.2. [Reserved].**Source**

The provisions of this § 222.2 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123728).

§ 222.11. [Reserved].**Source**

The provisions of this § 222.11 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123728).

§ 222.12. [Reserved].**Source**

The provisions of this § 222.12 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123728).

§ 222.13. [Reserved].**Source**

The provisions of this § 222.13 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123729).

§ 222.14. [Reserved].**Source**

The provisions of this § 222.14 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123729).

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§ 222.15. [Reserved].**Source**

The provisions of this § 222.15 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123730).

§ 222.16. [Reserved].**Source**

The provisions of this § 222.16 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123730).

§ 222.17. [Reserved].**Source**

The provisions of this § 222.17 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123730).

§ 222.21. [Reserved].**Source**

The provisions of this § 222.21 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial pages (123731) to (123732).

§ 222.22. [Reserved].**Source**

The provisions of this § 222.22 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123732).

§ 222.23. [Reserved].**Source**

The provisions of this § 222.23 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial pages (123732) to (123733).

§ 222.24. [Reserved].**Source**

The provisions of this § 222.24 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial page (123733).

222-2

Ch. 222

25 § 222.25

§ 222.25. [Reserved].

Source

The provisions of this § 222.25 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; reserved June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135. Immediately preceding text appears at serial pages (123733) to (123735).

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(252835) No. 293 Apr. 99

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(252836) No. 293 Apr. 99

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CHAPTER 223. VETERINARY MEDICINE**GENERAL PROVISIONS**

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Authority

The provisions of this Chapter 223 issued under section 301 of The Atomic Energy Development and Radiation Control Act (73 P. S. § 1301) (Repealed); amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 223 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 225.104 (relating to X-ray detection systems for explosives, weapons and illegal items); 28 Pa. Code § 501.4 (relating to regulations); and 28 Pa. Code § 565.12 (relating to radiology service policy).

223-1

(282391) No. 324 Nov. 01

GENERAL PROVISIONS

§ 223.1. Purpose and scope.

This chapter establishes radiation safety requirements for persons utilizing radiation sources in veterinary medicine. Persons who use radiation sources for veterinary medicine shall comply with this chapter. The requirements of this chapter are in addition to and not in substitution for other applicable requirements of this article.

Source

The provisions of this § 223.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119229).

§ 223.2. [Reserved].

Source

The provisions of this § 223.2 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119229).

§ 223.2a. Definitions.

As used in this chapter, the following words and terms have the following meanings, unless the context clearly indicates otherwise:

C—Coefficient of variation—The ratio of the standard deviation to the mean value of a population of observations.

Dead-man switch—A switch so constructed that a circuit closing contact can be maintained only by continuous pressure on the switch by the operator.

Fluoroscopic imaging assembly—A subsystem in which X-ray photons produce a fluoroscopic image. The term includes the image receptors such as the image intensifier and spot-film device, electrical interlocks, if any, and structural material providing linkage between the image receptor and diagnostic source assembly.

Image receptor—A device, such as a fluorescent screen or radiographic film, which transforms incident X-ray photons either into a visible image or into another form which can be made into a visible image by further transformations.

Leakage radiation—Radiation emanating from the diagnostic or therapeutic source assembly except for the following:

- (i) The useful beam.
- (ii) Radiation produced when the exposure switch or timer is not activated.

Authority

The provisions of this § 223.2a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 223.2a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§§ 223.3—223.6. [Reserved].**Source**

The provisions of these §§ 223.3—223.6 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119230).

§ 223.7. Structural shielding.

Facilities regularly used for diagnostic or therapeutic veterinary X-ray procedures shall have protective barriers sufficient to assure compliance with § 219.51 (Reserved).

Authority

The provisions of this § 223.7 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110-301 and 7110-302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 223.7 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 223.8. Operating procedures.

(a) Individuals, whose presence is not necessary to conduct the X-ray procedures, shall be located in a shielded area or at least 2 meters from the primary X-ray beam and X-ray tubehead.

(b) Mechanical supporting or restraining devices shall be used during X-ray procedures to hold the animal patient or films in position, when the technique permits.

(c) Individuals whose presence is necessary to conduct X-ray procedures and who are not located behind protective barriers or at least 2 meters from the X-ray tubehead and primary X-ray beam shall be protected with appropriate shielding devices such as lead aprons and gloves, and be positioned so that no part of their body except hands and forearms will be exposed to the primary beam. Appropriate shielding devices shall have a lead equivalent at least 0.25 millimeters of lead.

(d) X-ray exposures shall be authorized by a veterinarian.

Authority

The provisions of this § 223.8 issued under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 223.8 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 223.12a (relating to fluoroscopic equipment).

X-RAYS**§ 223.11. Radiographic equipment.****(a) Leakage radiation.**

(1) The leakage radiation from the tube housing assembly with a beam-limiting device attached measured at a distance of 1 meter in any direction from the source may not exceed 100 milliroentgens (25.8 $\mu\text{C/kg}$) in 1 hour when the X-ray tube is operated at its maximum technique factors. Compliance shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

(2) The radiation emitted by a component other than the tube housing assembly with a beam-limiting device attached may not exceed 2 milliroentgens (0.516 $\mu\text{C/kg}$) in 1 hour at 5 centimeters from an accessible surface of the component when it is operated in an assembled X-ray system under conditions for which it was designed. Compliance shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

(b) X-ray beam restriction.

(1) The primary X-ray beam shall be restricted to the area of clinical interest and equal to or smaller than the image receptor.

(2) Collimating devices capable of limiting the primary beam to the appropriate image receptor to within 2% of the source to image distance shall be provided and used. They shall provide the same degree of protection as is required in subsection (a)(1) for a diagnostic source assembly.

(3) A means shall be provided to align the center of the X-ray field to the center of the image receptor to within 2% of the source to image distance.

(c) *X-ray beam filtration.* The total filtration permanently in the useful beam may not be less than .5 millimeters aluminum equivalent for machines operating up to 50 kVp, 1.5 millimeters aluminum equivalent for machines operating between 50—70 kVp and 2.5 millimeters aluminum equivalent for machines operating above 70 kVp.

(d) Exposure control devices.

(1) An exposure control device shall be provided to terminate the exposure after a preset time interval, preset product of current and time, a preset number of pulses or a preset radiation exposure to the image receptor. Termination of an exposure shall cause automatic resetting of the timer to its initial setting or to zero. It may not be possible to initiate an exposure with the exposure control device in the zero or off position, if either position is available, unless equipped for current adjustment.

(2) A means shall be provided to initiate the radiation exposure by a deliberate action on the part of the operator such as the depression of a switch. The switch shall be of the dead man type.

(e) The coefficient of variation for exposure may not exceed 0.10 when all technique factors are held constant. This requirement shall be deemed to have been met if, when 4 exposures are made at identical technique factors, the value of the average exposure (a) is greater than or equal to 5 times the maximum exposure (e(max)) minus the minimum exposure (e(min)).

(f) Veterinary portable X-ray units shall be supported by a tube stand when the technique permits unless the unit is designed to be hand held during X-ray procedures.

(g) The X-ray control shall provide indication of the production of X-rays that is observable from the operator's position. The technique factors that are set prior to the exposure shall be indicated on the X-ray control and shall be visible to the operator from the operator's position.

Authority

The provisions of this § 223.11 amended under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 223.11 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (203901).

Cross References

This section cited in 25 Pa. Code § 223.12a (relating to fluoroscopic equipment).

§ 223.12. [Reserved].

Source

The provisions of this § 223.11 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (203901).

§ 223.12a. Fluoroscopic equipment.

(a) The fluoroscopic imaging assembly shall be provided with a primary protective barrier that intercepts the entire cross section of the primary beam at the maximum source to image receptor distance.

(b) The X-ray tube used for fluoroscopy may not produce X-rays unless the primary barrier is in position to intercept the entire primary beam.

(c) X-ray production in the fluoroscopic mode shall be controlled by a dead-man switch for the duration of any exposure. When recording serial fluoroscopic images, the fluoroscopist shall be able to terminate the X-ray exposures at any time. A means may be provided to permit completion of a single exposure of the series in process.

(d) The protective barrier may not transmit more than 2 milliroentgens (.516 $\mu\text{C/kg}$) per hour at 10 centimeters from an accessible surface of the fluoroscopic imaging assembly for each roentgen per minute of entrance exposure rate.

(e) During fluoroscopy and cinefluorography, the voltage and the current shall be continuously indicated.

(f) A cumulative timing device activated by the fluoroscope switch shall be provided. It shall indicate the passage of a predetermined period of irradiation either by an audible signal or by temporary or permanent interruption of the irradiation when the increment of exposure time exceeds a predetermined limit not exceeding 5 minutes.

(g) Fluoroscopic table designs when combined with normal operating procedures shall be of a type that no unprotected part of the staff or an ancillary individual's whole body is exposed to unattenuated scattered radiation which originates from under the table. The attenuation required may be not less than 0.25 millimeter lead equivalent.

(h) Equipment configuration when combined with normal operating procedures shall be of a type that no portion of the staff or an ancillary individual's whole body, except the extremities, is exposed to the unattenuated scattered radiation emanating from above the tabletop unless one of the following criteria is met:

(1) The individual is at least 120 centimeters from the center of the primary beam.

(2) The radiation has passed through at least 0.25 millimeter of lead equivalent material—for example, drapes, bucky-slot cover (film-tray cover panel), sliding or folding panel or self-supporting curtains—in addition to the lead equivalency provided by the protective apron referred to in § 223.8(c) (relating to operating procedures).

(i) In addition to the other requirements of this section, mobile fluoroscopes shall have image intensification.

Authority

The provisions of this § 223.12a issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 223.12a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 223.13. [Reserved].**Source**

The provisions of this § 223.13 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (203902).

§ 223.13a. Therapeutic systems.

(a) When the tube is operated at its maximum technique factors, the leakage radiation may not exceed any of the following:

(1) One hundred milliroentgens (25.8 $\mu\text{C/kg}$) per hour at 5 centimeters from the surface of the tube housing assembly for contact therapy systems.

(2) One roentgen (.258 mC/kg) per hour at 1 meter from the source for 0-500 kVp systems.

(3) One-tenth percent of the exposure rate of the primary beam at 1 meter from the source for 501-999 kVp systems.

(b) Beam limiting devices used for limiting the primary beam shall provide at least the same protection as required by the tube housing assembly.

(c) Therapeutic X-ray systems shall be secured to prevent unauthorized use whenever the system is unattended.

(d) Interlocks shall be provided so that, when a door of the treatment room is opened, either the machine will shut off automatically or the radiation level within the room will be reduced to an average of not more than 2 milliroentgens (0.516 $\mu\text{C/kg}$) per hour and a maximum of 10 milliroentgens (2.58 $\mu\text{C/kg}$) per hour at a distance of 1 meter in any direction from the target; or interlocks will energize a conspicuous visible or audible alarm signal so that the individual entering and the operator are made aware of the entry. After a shut-off or reduction in output, it shall be possible to restore the machine to full operation only from the control panel.

(e) Interlocks, on-off beam control mechanisms and safety and warning devices shall be checked and appropriately serviced at least once in a calendar year.

(f) Treatment room entrances shall be provided with warning lights, which will indicate when the primary beam is on, in a readily observable position near the outside of access doors.

- (g) Exposure factors shall be displayed on the control panel.
- (h) Provision shall be made to permit continuous observation of the animal patient from the control panel during irradiation.
- (i) A registrant may not permit an individual to operate a therapeutic X-ray system until the individual has received a copy of, and instruction in, the operating procedures for the system and has demonstrated understanding of the operating procedures and competence in the use of the system.

Authority

The provisions of this § 223.13a issued under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 223.13a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

RADIOACTIVE MATERIAL

§ 223.21. In vitro testing.

A veterinarian who uses radioactive material for in vitro testing shall comply with 10 CFR 31.11 (relating to general license for use of by-product material for certain in vitro clinical or laboratory testing) but is exempt from 10 CFR Part 20 Subpart K (relating to waste disposal).

Authority

The provisions of this § 223.21 issued under section 302 of the Radiation Protection Act (35 P.S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20); amended under the Radiation Protection Act (35 P.S. §§ 7110.101—7110.703); and the Low-Level Radioactive Waste Disposal Act (35 P.S. §§ 7130.101—7130.906); and sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 223.21 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282396).

§ 223.22. Sealed sources.

A veterinarian who uses sealed sources for therapeutic treatment of animals shall comply with 10 CFR Part 35, Subparts F, G, H and K but is exempt from 10 CFR 35.632—35.645 and 35.2632—35.2645.

Authority

The provisions of this § 223.22 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under the Radiation Protection Act (35 P. S. §§ 7110.101—7110.703); and the Low-Level Radioactive Waste Disposal Act (35 P. S. §§ 7130.101—7130.906); and sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 223.22 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282396) and (249329).

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(304528) No. 358 Sep. 04

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CHAPTER 224. MEDICAL USE OF RADIOACTIVE MATERIAL

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| A. | GENERAL | 224.1 |
| B. | OTHER REQUIREMENTS | 224.21 |
| C. | [Reserved] | 224.101 |
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Authority

The provisions of this Chapter 224 issued under the Radiation Protection Act (35 P. S. §§ 7110.101—7110.703); the Low-Level Radioactive Waste Disposal Act (35 P. S. §§ 7130.101—7130.906); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 224 adopted June 19, 1992, effective June 20, 1992, 22 Pa.B. 3135, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); and 25 Pa. Code § 217.1 (relating to purpose and scope).

Subchapter A. GENERAL

| Sec. | |
|--------------|--|
| 224.1. | Purpose and scope. |
| 224.2—224.9. | [Reserved]. |
| 224.10. | Incorporation by reference. |
| 224.11. | Effect of incorporation of 10 CFR Part 35. |

§ 224.1. Purpose and scope.

This chapter prescribes requirements and provisions for the medical use of radioactive material and for issuance of specific licenses authorizing the medical use of radioactive material. These requirements and provisions provide for the protection of the public health and safety. The requirements of this chapter are in addition to, and not in substitution for, other applicable requirements in this article. Unless specifically exempted, the requirements of Chapters 215, 217—220 and 230 apply to applicants and licensees subject to this article.

224-1

(304529) No. 358 Sep. 04

Source

The provisions of this § 224.1 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5206. Immediately preceding text appears at serial page (170454).

§§ 224.2—224.9. [Reserved].**Source**

The provisions of these §§ 224.2—224.9 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203906) to (203910).

§ 224.10. Incorporation by reference.

(a) Except as provided in this chapter, the requirements of 10 CFR Part 35 (relating to medical use of byproduct material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 35.8, 35.4001 and 35.4002 (relating to information collection requirements: OMB approval; violations; and criminal penalties) are not incorporated by reference.

Authority

The provisions of this § 224.10 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 224.10 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282398).

§ 224.11. Effect of incorporation of 10 CFR Part 35.

To reconcile differences between this chapter and the incorporated sections of 10 CFR Part 35 (relating to medical use of byproduct material), the following words and phrases shall be substituted for the language in 10 CFR Part 35 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) A reference to "byproduct material" includes NARM.
- (4) The definition of "sealed source" includes NARM.
- (5) A reference to the Advisory Committee on the Medical Uses of Isotopes is synonymous with the Department's Radiation Protection Advisory Committee.
- (6) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 224.11 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

224-2

(304530) No. 358 Sep. 04

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Subchapter B. OTHER REQUIREMENTS

| | |
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| Sec. | |
| 224.21. | [Reserved]. |
| 224.22. | Authorization for calibration, transmission and reference sources. |
| 224.23. | Decay-in-storage. |
| 224.51—224.60. | [Reserved]. |

§ 224.21. [Reserved].**Source**

The provisions of this § 224.21 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; reserved July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282399).

§ 224.22. Authorization for calibration, transmission and reference sources.

Notwithstanding the incorporation by reference of 10 CFR 35.65 (relating to authorization for calibration, transmission, and reference sources), a licensee authorized for medical use radioactive materials may not receive, possess or use radium in total quantity of 3.7 MBq (100 µci) or more for check, calibration, transmission and reference use except as specifically authorized by the Department.

Authority

The provisions of this § 224.22 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 224.22 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282399).

§ 224.23. Decay-in-storage.

Notwithstanding the incorporation by reference of 10 CFR Part 35 (relating to medical use of byproduct material), a licensee may hold sealed sources of radioactive material with a physical half-life of up to 300 days for decay-in-storage before disposal in ordinary trash.

Authority

The provisions of this § 224.23 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 224.23 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282399).

§§ 224.51—224.60. [Reserved].**Source**

The provisions of these §§ 224.51—224.60 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203910) to (203915).

Subchapter C. [Reserved]**§§ 224.101—224.111. [Reserved].****Source**

The provisions of these §§ 224.101—224.111 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203916) to (203924).

§ 224.112. [Reserved].**Source**

The provisions of this § 224.112 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203924).

Subchapter D. [Reserved]**§§ 224.151 and 224.152. [Reserved].****Source**

The provisions of these §§ 224.151 and 224.152 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203924) to (203925).

Subchapter E. [Reserved]**§§ 224.201 and 224.202. [Reserved].****Source**

The provisions of these §§ 224.201 and 224.202 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203925) to (203926).

§ 224.203. [Reserved].**Source**

The provisions of this § 224.203 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203926).

§ 224.204. [Reserved].**Source**

The provisions of this § 224.204 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203927).

Subchapter F. [Reserved]**§§ 224.251 and 224.252. [Reserved].****Source**

The provisions of these §§ 224.251 and 224.252 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203927) to (203928).

§ 224.253. [Reserved].**Source**

The provisions of this § 224.253 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203928) to (203929).

§ 224.254. [Reserved].**Source**

The provisions of this § 224.254 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203929).

Subchapter G. [Reserved]**§§ 224.301—224.304. [Reserved].****Source**

The provisions of these §§ 224.301 and 224.304 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203929) to (203931).

§ 224.305. [Reserved].**Source**

The provisions of this § 224.305 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203931) to (203932).

§ 224.306. [Reserved].**Source**

The provisions of this § 224.306 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203932).

Subchapter H. [Reserved]**§§ 224.351 and 224.352. [Reserved].****Source**

The provisions of these §§ 224.351 and 224.352 reserved September 14, 2001, reserved September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203932) to (203933).

Subchapter I. [Reserved]**§§ 224.401—224.411. [Reserved].****Source**

The provisions of these §§ 224.401 and 224.411 reserved September 14, 2001, reserved September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203933) to (203942).

§ 224.412. [Reserved].**Source**

The provisions of this § 224.412 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203942).

§§ 224.413 and 224.414. [Reserved].**Source**

The provisions of these §§ 224.413 and 224.414 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203942) to (203943).

Subchapter J. [Reserved]**§§ 224.451—224.465. [Reserved].****Source**

The provisions of these §§ 224.451 and 224.465 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203944) to (203953).

Subchapter K. [Reserved]

§ 224.501. [Reserved].

Source

The provisions of this § 224.501 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (903953) to (203954).

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CHAPTER 225. RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS

| Subch. | | Sec. |
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| A. | GENERAL PROVISIONS | 225.1 |
| B. | RADIATION-PRODUCING MACHINES | 225.71 |

Authority

The provisions of this Chapter 225 issued under section 301 of The Atomic Energy Development and Radiation Control Act (73 P. S. § 1301) (Repealed); and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 225 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 78.111 (relating to abandonment); 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 217.1 (relating to purpose and scope); 25 Pa. Code § 228.45 (relating to portable or mobile accelerators); 28 Pa. Code § 501.4 (relating to regulations); and 28 Pa. Code § 565.12 (relating to radiology service policy).

Subchapter A. GENERAL PROVISIONS

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225.44. [Reserved].

225.51—225.53. [Reserved].

225.54—225.65. [Reserved].

§ 225.1. Purpose and scope.

(a) This chapter establishes radiation safety requirements for persons utilizing radiation sources for industrial radiography. Licensees and registrants who use radiation sources for industrial radiography shall comply with this chapter. The requirements of this chapter are in addition to and not in substitution for other applicable requirements in this article, in particular, the requirements and provisions of Chapters 215, 217—220, 228 and 230.

(b) Persons using only radiation-producing machines for industrial radiographic operations need not comply with § 225.2a (relating to incorporation by reference) unless otherwise specified in Subchapter B (relating to radiation-producing machines).

(c) This chapter does not apply to the use of radiation sources for medical diagnosis or therapy.

Source

The provisions of this § 225.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282406).

§ 225.2. [Reserved].

Source

The provisions of this § 225.2 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203957) to (203958).

§ 225.2a. Incorporation by reference.

(a) Except as provided in this chapter, the requirements of 10 CFR Part 34 (relating to licenses for industrial radiography and radiation safety requirements for industrial radiographic operations) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 34.5, 34.8, 34.121 and 34.123 are not incorporated by reference.

Source

The provisions of this § 225.2a adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

Cross References

This section cited in 25 Pa. Code § 225.1 (relating to purpose and scope).

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§ 225.3. [Reserved].**Source**

The provisions of this § 225.3 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4895) to (4896).

§ 225.3a. Effect of incorporation of 10 CFR Part 34.

To reconcile differences between this chapter and the incorporated sections of 10 CFR Part 34, the following words and phrases shall be substituted for the language in 10 CFR Part 34 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) The definition of "licensed material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 225.3a adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 225.4. [Reserved].**Source**

The provisions of this § 225.4 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4896).

§ 225.4a. Radiation safety program.

(a) A person who intends to use radiation-producing machines for industrial radiography shall have a program for training personnel, written operating procedures and emergency procedures, an internal review system and an organizational structure for radiographic operations which includes specified delegations of authority and responsibility for operation of the program. This program shall be approved by the Department before commencing industrial radiographic operations.

(b) The registrant shall notify the Department of intended changes to the registrant's radiation safety program and obtain Departmental approval.

Source

The provisions of this § 225.4a adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282407).

Cross References

This section cited in 25 Pa. Code § 225.102 (relating to shielded room X-ray radiography).

§ 225.5. [Reserved].**Source**

The provisions of this § 225.5 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4896).

§ 225.5a. Reciprocity.

Out-of-State users of radiation producing machines shall meet the requirements of § 216.7 (relating to out-of-State radiation-producing machines).

Source

The provisions of this § 225.5a adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 225.6. [Reserved].**Source**

The provisions of this § 225.6 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4896).

§ 225.6a. Prohibitions.

Use of radiation sources covered under this chapter for diagnosis or therapy on humans or animals is not permitted.

Source

The provisions of this § 225.6a adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 225.7. [Reserved].**Source**

The provisions of this § 225.7 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4896) to (4897).

§ 225.8. [Reserved].**Source**

The provisions of this § 225.8 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4897).

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§ 225.9. [Reserved].**Source**

The provisions of this § 225.9 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4897).

§§ 225.11—225.13. [Reserved].**Source**

The provisions of these § 225.11—225.13 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203959) to (203960).

§ 225.14. [Reserved].**Source**

The provisions of this § 225.14 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203960) to (203961).

§§ 225.15—225.18. [Reserved].**Source**

The provisions of these §§ 225.15—225.18 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial text pages (203962) to (203964).

§ 225.21. [Reserved].**Source**

The provisions of this § 225.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203964).

§ 225.22. [Reserved].**Source**

The provisions of this § 225.22 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203965).

§ 225.23. [Reserved].**Source**

The provisions of this § 225.23 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203965) to (203966).

§§ 225.31—225.33. [Reserved].**Source**

The provisions of these §§ 225.31—225.33 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203966) to (203967).

§§ 225.34—225.36. [Reserved].**Source**

The provisions of these §§ 225.34—225.36 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (4902) to (4904).

§§ 225.41—225.43. [Reserved].**Source**

The provisions of these §§ 225.41—225.43 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203968) to (203970).

§ 225.44. [Reserved].**Source**

The provisions of this § 225.44 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203970) to (203971).

§§ 225.51—225.53. [Reserved].**Source**

The provisions of these §§ 225.51—225.53 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203971) to (203972).

§§ 225.54—225.65. [Reserved].**Source**

The provisions of these §§ 225.54—225.65 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4908) to (4916).

Subchapter B. RADIATION-PRODUCING MACHINES**GENERAL ADMINISTRATIVE REQUIREMENTS**

- Sec.
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225.72. Duties of personnel.
225.73. Training of personnel.
225.74. Training and testing.
225.75. Audits and safety reviews of radiographers and radiographer's assistants.
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- 225.81. Permanent radiographic installations.
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- 225.91. Radiation survey meter requirements.
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- 225.101. Cabinet X-ray systems and baggage/package X-ray systems.
225.102. Shielded room X-ray radiography.
225.103. Field site radiography.
225.104. X-ray detection systems for explosives, weapons and illegal items.

Source

The provisions of this Subchapter B adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239, unless otherwise noted.

Cross References

This subchapter cited in 25 Pa. Code § 225.1 (relating to purpose and scope).

GENERAL ADMINISTRATIVE REQUIREMENTS**§ 225.71. Definitions.**

The following words and terms, when used this subchapter, have the following meanings, unless the context clearly indicates otherwise:

Cabinet radiography—Industrial radiography conducted in an enclosure or cabinet (not a room) so shielded that doses to individual members of the public at every location on the exterior meet the limitations specified in 10 CFR 20.1301 (relating to dose limits for individual members of the public).

Cabinet X-ray system—An X-ray system with the X-ray tube installed in an interlocked enclosure or cabinet, designed to exclude personnel from its interior during operation.

(i) Included are all X-ray systems designed primarily for the inspection of baggage or packages.

(ii) An X-ray tube used within a shielded part of a building or X-ray equipment which may temporarily or occasionally incorporate portable shielding is not considered a cabinet X-ray system.

Certified cabinet X-ray system—An X-ray system which has been certified under 21 CFR 1010.2 (relating to certification) as being manufactured and assembled under 21 CFR 1020.40 (relating to cabinet x-ray systems).

DRD—Direct reading dosimeter—

(i) As used in this subchapter, means an “individual monitoring device” (see 10 CFR 20.1003 (relating to definitions)) that does not require additional processing to measure an individual’s dose.

(ii) The term also includes the direct reading personnel (individual) monitoring devices known as pocket dosimeter, pocket ionization chamber and electronic personal dosimeter (EPD).

Field radiography—A location where radiographic operations are conducted (onsite or offsite) other than those designated as a permanent radiographic facility.

Industrial radiography—An examination of the structure of materials by nondestructive methods, including fluoroscopy, which utilizes radiation producing machines to make radiographic images.

NVLAP—National Voluntary Laboratory Accreditation Program.

Permanent radiographic installation—A shielded installation or structure designed or intended for radiography in which radiography is regularly performed.

Personal supervision—The provision of guidance and instruction to a radiographer's assistant given by a radiographer who is:

- (i) Physically present at the site.
- (ii) In visual contact with the radiographer's assistant while the assistant is using radiation sources.
- (iii) In proximity so that immediate assistance can be given if required.

Personnel dosimeter—As used in this subchapter, means any of the "individual monitoring devices" (see 10 CFR 20.1003) that shall be processed and evaluated to generate a permanent record of an individual's dose, for example, a film badge, thermoluminescent dosimeter (TLD) or optically stimulated luminescent dosimeter (OSLD).

RSO—radiation safety officer—An individual who ensures that, in the daily operation of the registrant's or licensee's radiation safety program, activities are being performed in accordance with approved procedures and are in compliance with Department requirements.

Radiographer—An individual who performs radiographic operations or an individual in attendance at a site where radiation producing machines are being used who personally supervises industrial radiographic operations.

Radiographer's assistant—An individual who, under the personal supervision of a radiographer, uses radiation producing machines or radiation survey instrumentation.

Radiographer trainee—An individual who is in the process of becoming a radiographer's assistant or a radiographer.

Radiographic operations—The activities associated with a radiation producing machine during use of the machine, to include surveys to confirm adequacy of boundaries, setting up equipment and any activity inside restricted area boundaries.

Safety device—As applied to radiation-producing machines in this subchapter, a device or component that causes the unit to de-energize or interrupt the beam.

Shielded room radiography—Industrial radiography that is conducted in an enclosed room, the interior of which is not occupied during radiographic operations.

Source

The provisions of this § 225.71 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (282412) to (282413).

§ 225.72. Duties of personnel.

(a) The RSO shall assure that the radiation safety program of the registrant or licensee is implemented and suspend or terminate operations that are not being conducted in accordance with approved procedures or the Department's requirements.

(b) The radiographer is responsible to the registrant or licensee for following the procedures of the registrant or licensee and for complying with the Department's requirements while industrial radiographic operations are being conducted.

(c) The radiographer's assistant shall only use radiation producing machines or radiation survey instrumentation under the personal supervision of a radiographer.

(d) The radiographer trainee is not permitted to operate radiation producing machines or radiation survey instrumentation.

§ 225.73. Training of personnel.

(a) A registrant may not allow an individual to act as a radiographer or radiographer's assistant unless that individual meets the requirements of § 225.74 (relating to training and testing).

(b) Persons performing field radiography shall comply with the training requirements in Appendix A (relating to subjects to be covered during the instruction of radiographers).

Source

The provisions of this 225.73 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282414).

§ 225.74. Training and testing.

(a) The registrant may not permit an individual to act as a radiographer until that individual has:

(1) Been instructed in the subjects outlined in Appendix A.

(2) Received copies of this chapter, Chapters 219 and 220 (relating to standards for protection against radiation; and notices, instructions and reports to workers; inspections and investigations), and copies of the license or certificate of registration and the operating and emergency procedures of the registrant or licensee.

(3) Received instruction covering regulatory requirements, operating and emergency procedures and the use of radiation-producing machines and radiation survey instruments of the registrant or licensee.

(4) Demonstrated competency and understanding of the information in this subsection to the satisfaction of the registrant or licensee as evidenced by the successful completion of a written test and a field examination.

(b) The registrant or licensee may not permit an individual to act as a radiographer's assistant until that individual has:

(1) Received copies of, and instruction in, the applicable operating and emergency procedures and has been instructed in the use of sources of radiation and radiation survey instruments of the registrant or licensee.

(2) Demonstrated that, under direct personal supervision of a radiographer, the individual is competent to use sources of radiation and radiation survey

instruments as evidenced by the successful completion of a written or oral test and a field examination on the subjects relevant to being an assistant radiographer.

(c) Records of the training required under subsections (a) and (b), including copies of written tests, dates of oral tests and field examinations, shall be maintained for inspection by the Department for 3 years following termination of employment by the individual or until the registration or license is terminated.

Cross References

This section cited in 25 Pa. Code § 225.73 (relating to training and testing).

§ 225.75. Audits and safety reviews of radiographers and radiographer's assistants.

(a) The registrant or licensee shall review and provide for the safety and ongoing training needs of radiographers and radiographer's assistants at least once during each calendar year.

(b) The registrant or licensee shall conduct an annual inspection program of the job performance of each radiographer and radiographer's assistant to ensure that operating and emergency procedures and this article and registration or license requirements for the registrant or licensee are followed. This audit program shall:

(1) Include observation of the performance of each radiographer and radiographer's assistant during an actual radiographic operation at intervals not to exceed 1 calendar year.

(2) Provide that, if a radiographer or radiographer's assistant has not participated in a radiographic operation for more than 6 months since the last annual inspection, the individual's performance shall be observed and recorded when the individual next participates in a radiographic operation.

(c) The registrant or licensee shall maintain records of the training set forth in subsection (b) to include certification documents, written and field examinations, annual safety reviews and annual audits of job performance. Records shall be available for inspection by the Department for 3 years following the termination of employment of the individual or until the registration or license is terminated.

§ 225.76. Reporting requirements.

(a) In addition to the reporting requirements in §§ 219.221 and 219.222 (relating to reports of stolen, lost or missing licensed or registered sources of radiation; and notification of incidents and reportable events), each registrant or licensee shall provide to the Department, within 30 days of its occurrence, a written report on any of the following incidents involving machines or equipment used in radiographic operations:

(1) The inability to terminate irradiation from a radiation producing machine.

(2) An interlock failure during shielded room radiography.

(b) The registrant or licensee shall include the following information in each report submitted under subsection (a):

- (1) A description of the equipment problem.
- (2) The cause of the incident, if known or determined.
- (3) The manufacturer and model number of the equipment involved.
- (4) The place, date and time of the incident.
- (5) Actions taken to reestablish normal operations.
- (6) Corrective actions taken or planned to prevent reoccurrence.
- (7) The names and qualifications of personnel involved.

(c) Reports of overexposures, required under 10 CFR 20.2202 (relating to notification of incidents) or of excessive exposures, required under 10 CFR 20.2203 (relating to reports of exposures, radiation levels and concentrations of radioactive material exceeding the limits) which involve the failure of safety components of radiography equipment shall also include, to the extent known, the information specified under subsection (b). Complete information required in subsection (b) shall be available in the 30-day follow-up report rule under 10 CFR 20.2203(a).

GENERAL TECHNICAL REQUIREMENTS

§ 225.81. Permanent radiographic installations.

(a) Permanent radiographic installations having high radiation area entrance controls of the types described in 10 CFR 20.1601 and 20.1902 (relating to control of access to high radiation areas; and posting requirements) shall also meet the following requirements.

(1) Each entrance that is used for personnel access to the high radiation area in a permanent radiographic installation shall have both visible and audible warning signals to warn of the presence of radiation. The visible signal shall be activated by radiation whenever the X-ray source is energized. The audible signal shall be actuated when an attempt is made to enter the installation while the X-ray source is energized.

(2) The entrance control device or alarm system shall be tested for proper function prior to beginning operations on each day of use.

(3) The radiographic exposure system may not be used if an entrance control device or alarm system is not operating properly. If an entrance control device or alarm system is not functioning properly, it shall be removed from service and repaired or replaced immediately. If no replacement is available, the facility may continue to be used provided that the registrant implements the continuous surveillance under 10 CFR 34.51 and 34.52 (relating to surveillance; posting), § 225.83 (relating to records required at field radiography sites) and uses an alarming ratemeter. Before the entrance control device or alarm system is returned to service, the radiation safety officer or an individual designated by the radiation safety officer shall validate the repair.

(b) Records of the tests performed under subsection (a) shall be maintained for inspection by the Department for 3 years.

§ 225.82. Operating requirements.

(a) When radiographic operations are performed at a location other than a permanent radiographic installation, a minimum of two radiographic personnel shall be present to operate the X-ray device. At least one of the radiographic personnel shall be qualified as a radiographer. The other individual may be either a radiographer, a radiographer's assistant or a radiographer trainee.

(b) Other than a radiographer, or a radiographer's assistant who is under the personal supervision of a radiographer, an individual may not manipulate the controls or operate the equipment used in industrial radiographic operations.

(c) At each job site, the following shall be supplied by the registrant or licensee:

(1) The appropriate barrier ropes and warning signs.

(2) At least one operable, calibrated radiation survey instrument.

(3) For each worker requiring monitoring, an individual personnel dosimeter that is processed and evaluated by an NVLAP processor.

(4) An operable, calibrated direct reading dosimeter with a range of zero to 51.6 $\mu\text{C/kg}$ (200 milliroentgen) for each worker requiring monitoring.

(d) An industrial radiographic operation may not be performed if any of the items in subsection (c) is not available at the job site or is inoperable.

Source

The provisions of this § 225.82 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282416) to (282417).

§ 225.83. Records required at field radiography sites.

Each registrant or licensee conducting radiographic operations at a field radiography site shall maintain and have available for inspection by the Department at that job site, the following records or documents:

(1) The certificate of registration, license or equivalent document which authorizes radiographic operations, and radiographic personnel certifications.

(2) Operating and emergency procedures.

(3) Relevant regulations of the Department.

(4) Survey records required under this chapter for the period of operation at the site.

(5) Daily direct reading dosimeter records for the period of operation at the site.

(6) The current radiation survey meter calibration records for meters in use at the site. Acceptable records include tags or labels that are affixed to the survey meter.

Source

The provisions of this § 225.83 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282417).

Cross References

This section cited in 25 Pa. Code § 225.81 (relating to permanent radiographic installations).

§ 225.84. Operating and emergency procedures.

The operating and emergency procedures of the registrant or licensee shall include instruction in at least the following:

- (1) Handling and use of sources of radiation to be employed so that no individual is likely to be exposed to radiation in excess of the limits established in Chapter 219 (relating to standards for protection against radiation).
- (2) Methods and occasions for conducting radiation surveys and the proper use of survey meters.
- (3) Methods for controlling access to areas where radiographic operations are being conducted.
- (4) Methods and occasions for locking and securing sources of radiation.
- (5) Personnel monitoring and the use of individual monitoring devices, including steps that are to be taken immediately by radiographic personnel when a direct reading dosimeter is found to be off-scale.
- (6) Methods and procedures for minimizing exposure to individuals in the event of an accident.
- (7) The procedure for notifying proper personnel in the event of an accident.
- (8) Maintenance of records required by the Department.
- (9) The inspection and maintenance of radiation-producing machines and survey meters.

Cross References

This section cited in 25 Pa. Code § 225.102 (relating to shielded room X-ray radiography).

§ 225.85. Surveys and survey records.

(a) A survey with a calibrated radiation survey instrument shall be made after each radiographic exposure to determine that the emission of radiation has terminated.

(b) Records of the surveys required by subsection (a) shall be maintained (for inspection by the Department) for 3 years. If the survey has been used to determine an individual's exposure, the records of the survey shall be maintained until the Department terminates the registration or license.

§ 225.86. Utilization logs.

A registrant or licensee shall maintain current logs, which shall be kept available for inspection by the Department for 3 years from the date of the event, showing for each radiation-producing machine, the following applicable information:

- (1) The identity (name and signature) of the operator to whom the radiation-producing machine is assigned.
- (2) The model and serial number of the radiation-producing machine.
- (3) The locations and dates of use.
- (4) The technique factors (tube kilovoltage, tube current, exposure time) used for each radiographic exposure.

§ 225.87. Security.

During each radiographic operation, the radiographer or radiographer's assistant shall maintain direct surveillance of the operation to protect against unauthorized entry into a high radiation area, except when one of the following exists:

- (1) The high radiation area is equipped with a control device or an alarm system as described in 10 CFR 20.1601 and 20.1902(b) (relating to control of access to high radiation areas; and posting of high radiation areas).
- (2) The high radiation area is locked to protect against unauthorized or accidental entry.

§ 225.88. Posting.

Areas in which radiographic operations are being performed shall be conspicuously posted as required by 10 CFR 20.1902 (relating to posting requirements).

**RADIATION SURVEY INSTRUMENT AND PERSONNEL
MONITORING REQUIREMENTS****§ 225.91. Radiation survey meter requirements.**

(a) A registrant or licensee shall maintain sufficient calibrated and operable radiation survey instruments to make physical radiation surveys as required by this chapter and Chapter 219 (relating to standards for the protection against radiation).

(b) A radiographic operation may not be conducted unless calibrated and operable radiation survey instrumentation is available and used at each site where radiographic operations are conducted.

(c) Immediately prior to first use at a site where radiographic operations are conducted and at the beginning of work shift changes thereafter, a radiation survey instrument shall be checked to ensure that it is operating properly by exposing the instrument to a reference source of radiation and observing its response. Instruments that fail to respond as expected may not be used.

Cross References

This section cited in 25 Pa. Code § 225.92 (relating to radiation survey meter calibration requirements).

§ 225.92. Radiation survey meter calibration requirements.

(a) In addition to the requirements of § 225.91 (relating to survey meter requirements), instruments required by this chapter shall have a range so that 0.516 $\mu\text{C/kg}$ (2 mR) per hour through 258 $\mu\text{C/kg}$ (1 R) per hour can be measured.

(b) Each radiation instrument shall be calibrated:

- (1) At energies appropriate for use.
- (2) At intervals not to exceed 6 months.
- (3) After each instrument servicing, other than battery replacement.

- (4) To within an accuracy of $\pm 20\%$.
- (5) At two points located approximately one-third and two-thirds of full scale on each scale of linear scale instruments; at mid-range of each decade and at two points of at least 1 decade for logarithmic scale instruments; and for digital instruments, at three points between $0.516 \mu\text{C/kg}$ (2 mR) and $258 \mu\text{C/kg}$ (1000 mR) per hour.
- (6) By a person authorized by the Department, the NRC or an agreement state.
- (c) Calibration records shall be maintained for inspection by the Department for 3 years after the date of calibration.

§ 225.93. Personnel monitoring control.

(a) The registrant or licensee may not permit an individual to act as a radiographer or as a radiographer's assistant unless, at all times during radiographic operations, each individual wears a direct reading dosimeter and a personnel dosimeter that is processed and evaluated by an NVLAP processor.

(1) Personnel monitoring devices used to determine compliance with dose limits for the whole body shall be worn on the trunk of the body over the area most likely to receive exposure.

(2) This does not relieve the registrant or licensee from providing peripheral monitoring devices such as ring finger TLDs when appropriate.

(3) Each personnel monitoring device shall be assigned to and worn by only one individual.

(b) Film badges shall be replaced at intervals not to exceed 1 month. Other personnel dosimeters processed and evaluated by an accredited NVLAP processor shall be replaced at intervals not to exceed 3 months.

(c) Direct reading dosimeters shall meet the criteria as in ANSI N13.5-1972, "Performance Specifications for Direct Reading and Indirect Reading Pocket Dosimeters for X- and Gamma-Radiation" published in 1972, exclusive of subsequent amendments or additions.

(d) The use of DRDs is subject to the following requirements:

(1) DRDs shall have a range of zero to $51.6 \mu\text{C/kg}$ (200 mR) and shall be zeroed at the start of each work shift.

(2) As a minimum, at the beginning and the end of each worker's shift involving the use of a source of radiation, DRDs shall be read and the exposure values recorded.

(3) Direct reading dosimeters shall be checked for correct response to radiation at periods not to exceed 1 year. A dosimeter may not be used for personnel monitoring unless the response is accurate within $\pm 20\%$ of the true radiation exposure. Records of dosimeter response checks shall be maintained for inspection by the Department for 3 years.

(4) If an individual's DRD indicates exposure that is "off-scale" beyond the range it can measure, industrial radiographic operations by that individual

shall cease immediately and the individual's personnel dosimeter shall be sent immediately for processing. The individual may not use any sources of radiation until the individual's radiation dose has been determined.

(e) Data on personnel exposure reported or recorded from personnel monitoring devices shall be kept for inspection by the Department until the certificate of registration or license is terminated or until the Department authorizes their disposition, in writing, following a determination by the Department that the records contain inaccurate personnel monitoring information.

RADIATION-PRODUCING MACHINE REQUIREMENTS

§ 225.101. Cabinet X-ray systems and baggage/package X-ray systems.

(a) Cabinet and baggage/package X-ray systems that are certified under 21 CFR Chapter I, Subchapter J (relating to radiological health) shall also meet the requirement of 21 CFR 1020.40 (relating to cabinet X-ray systems).

(b) A cabinet X-ray system may not be energized unless all openings are securely closed and exposure to radiation from the system does not exceed the limits in 10 CFR 20.1301 (relating to dose limits for individual members of the public). Each access door to the cabinet shall have an interlock that terminates the exposure whenever the door is opened. The enclosure shall be shielded so that every location on the exterior meets the conditions for an unrestricted area.

(c) A registrant may not permit an individual to operate a cabinet X-ray system until the individual has received a copy of, and instruction in, the operating procedures for the X-ray system and has demonstrated competency in the use of the cabinet X-ray system and an understanding of the operating procedures.

(d) The registrant shall perform radiation surveys to demonstrate compliance with 10 CFR 20.1301 and maintain records of these surveys for inspection by the Department for 3 years:

(1) Upon installation of the equipment.

(2) Following a change in the initial arrangement, relocation of the unit, or following any maintenance requiring the disassembly or removal of any shielding component.

(3) When a visual inspection reveals an abnormal condition.

(e) The registrant shall test on-off switches, interlocks and safety devices at intervals not exceeding 1 year, and make repairs as necessary to maintain all safety features including warning labels. Records of these tests shall be maintained for inspection by the Department for 3 years.

(f) Cabinet X-ray systems and baggage/package X-ray systems are exempt from all other provisions of this chapter.

Source

The provisions of this § 225.101 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282421).

Cross References

This section cited in 25 Pa. Code § 225.104 (relating to X-ray detection systems for explosives, weapons and illegal items).

§ 225.102. Shielded room X-ray radiography.

(a) A room used for shielded room X-ray radiography shall be shielded so that every location on the exterior meets conditions for an unrestricted area and the only access to the room is through openings which are interlocked so that the radiation source will not operate unless all openings are securely closed and meet the requirements of 10 CFR 20.1601 (relating to control of access to high radiation areas).

(b) The operator shall conduct a physical radiation survey to determine that the radiation source is deenergized prior to each entry into the radiographic exposure area.

(c) As an alternative to subsection (b), the registrant may use an independent radiation monitoring system that displays the radiation intensity or displays when radiation levels have returned to their pre-irradiation levels.

(d) With the exception of the provisions of §§ 225.4a and 225.84 (relating to radiation safety program; and operating and emergency procedures), shielded room radiography is exempt from all other provisions of this chapter.

Source

The provisions of this § 225.102 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282421) to (282422).

§ 225.103. Field site radiography.

(a) The operator shall conduct a physical radiation survey to determine that the radiation source is de-energized prior to each entry into the radiographic exposure area. Survey results and records of the boundary location shall be maintained and kept available for inspection by the Department for 3 years.

(b) Mobile or portable radiation producing machines shall be physically secured to prevent tampering or removal by unauthorized personnel.

Source

The provisions of this § 225.103 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282422).

§ 225.104. X-ray detection systems for explosives, weapons and illegal items.

(a) This section applies to X-ray systems that produce an image that may be used to screen for the presence of explosive devices or components, weapons, contraband or prohibited items. This section does not apply to cabinet and baggage/package X-ray systems covered under § 225.101 (relating to cabinet X-ray systems and baggage/package X-ray systems).

(b) An X-ray system used for detection of explosives, weapons or illegal items may not be used on human beings or animals without specific permission of the Department. X-ray systems that irradiate human beings for medical diagnosis are covered under Chapter 221 (relating to human use of X-ray machines). X-ray systems that irradiate animals for diagnosis or therapy are covered under Chapter 223 (relating to veterinary medicine).

(c) Radiographic X-ray detection systems shall conform to the following:

(1) The leakage radiation from the source assembly measured at a distance of 1 meter in any direction from the source may not exceed 25.8 $\mu\text{C/kg}$ (100 mR) in 1 hour when the X-ray tube is operated at its leakage technique factors. Compliance shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

(2) Portable X-ray systems shall be equipped with collimators which are capable of restricting the useful beam to the area of interest. Collimators shall provide the same degree of protection required in paragraph (1).

(3) A means shall be provided to terminate the exposure after a preset time, a preset to image receptor or a preset product of exposure time and tube current.

(4) The X-ray control shall have a dead-man type exposure switch.

(5) The X-ray controls shall indicate the technique factors, (that is, kilovoltage, tube current and exposure time or the product of tube current and exposure time).

(6) The X-ray machine shall be labeled with a readily discernible sign bearing the radiation symbol and the words, "CAUTION RADIATION—THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED" or words having a similar intent, near any switch that energizes the X-ray tube.

(7) For fixed radiographic equipment, an easily visible warning light shall be located adjacent to the X-ray tube and labeled with the words "X-RAY ON" or words having a similar intent. The warning light shall be illuminated only when the X-ray tube is energized or only when the shutter is open.

(d) Fluoroscopic X-ray detection systems shall conform to the following:

(1) The leakage radiation from the source assembly measured at a distance of 1 meter in any direction from the source may not exceed 25.8 $\mu\text{C/kg}$ (100 mR) in 1 hour when the X-ray tube is operated at its leakage technique factors. Compliance shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

(2) The X-ray machine shall be labeled with a readily discernible sign bearing the radiation symbol and the words, "CAUTION RADIATION—THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED" or words having a similar intent, near any switch that energizes the X-ray tube.

(3) To the extent practicable, the X-ray system (X-ray tube, imaging system and the object being irradiated) shall be completely enclosed so that every location on the exterior meets conditions for an unrestricted area and the only

access to the room or enclosure is through openings which are interlocked so that the radiation source will not operate unless all openings are securely closed and meet the requirements of 10 CFR 20.1601 (relating to control of access to high radiation areas).

(4) The equipment shall be constructed so that, under conditions of normal use, the entire cross-section of the useful beam shall be attenuated by a primary protective barrier permanently incorporated into the equipment.

(5) The X-ray control shall have a dead-man type exposure switch. Activation of the X-ray beam shall be possible only by continuous pressure on the exposure switch.

(6) An easily visible warning light shall be located adjacent to the X-ray tube or on the outside of the enclosure and be labeled with the words "X-RAY ON" or words having a similar intent. This light shall be illuminated only when the X-ray tube is energized or only when the shutter is open.

(e) Operating procedures for portable radiographic X-ray detection systems are as follows:

(1) To the extent practicable, portable X-ray tube heads shall be supported by a stand.

(2) To the extent practicable, supporting or positioning devices for the image receptor shall be used during radiation exposures.

(3) Individuals, other than those whose presence is necessary to conduct the X-ray procedure, shall be located at least 2 meters away from the X-ray tube and the object being irradiated during exposures.

(4) An individual may not be regularly employed to support the image receptor or object during radiation exposures.

(f) Operating procedures for fixed radiographic X-ray detection systems are as follows:

(1) A registrant shall test the safety and warning devices, including interlocks, at intervals not to exceed 12 months. Test records shall be maintained for inspection by the Department for 3 years after the test has been conducted.

(2) Safety or warning devices that do not function properly shall be repaired in a timely manner.

(3) If an X-ray detection system is required to be operated while in need of repair, procedures shall be modified to maintain the design level equivalent of safety or else the equipment may not be used.

APPENDIX A**Subjects to be Covered During the
Instruction of Radiographers**

- I. *Fundamentals of Radiation Safety*
 - A. Characteristics of radiation
 - B. Units of radiation dose and quantity of radioactivity
 - C. Significance of radiation dose
 - 1. Radiation protection standards
 - 2. Biological effects of radiation dose
 - D. Levels of radiation from radiation sources
 - E. Methods of controlling radiation dose
 - 1. Working time
 - 2. Working distances
 - 3. Shielding
- II. *Radiation Detection Instrumentation to be Used*
 - A. Use of radiation survey instruments
 - 1. Operation
 - 2. Calibration
 - 3. Limitations
 - B. Survey techniques
 - C. Use of personnel monitoring equipment
 - 1. Film badges
 - 2. Thermoluminescent dosimeters
 - 3. Pocket dosimeters
- III. *Radiographic Equipment to be Used*
 - A. Remote handling equipment
 - B. Radiographic exposures devices and sealed sources
 - C. Storage containers
 - D. Operation and control of X-ray equipment
- IV. *The Requirements of Pertinent Federal and State Regulations*
- V. *The Licensee's or Registrant's Written Operating and Emergency Procedures*
- VI. *Inspection and Maintenance Performed by the Radiographers*
- VII. *Case Histories of Radiography Incidents*

Source

The provisions of this Appendix A adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235.

Cross References

This appendix cited in 25 Pa. Code § 225.73 (relating to training of personnel).

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**CHAPTER 226. LICENSES AND RADIATION SAFETY
REQUIREMENTS FOR WELL LOGGING****GENERAL**

| | |
|----------------|--|
| Sec. | |
| 226.1. | Purpose and scope. |
| 226.2. | [Reserved]. |
| 226.3. | [Reserved]. |
| 226.3a. | Abandonment of a sealed source. |
| 226.4. | Incorporation by references. |
| 226.5. | Effect of incorporation of 10 CFR Part 39. |
| 226.11. | [Reserved]. |
| 226.12. | [Reserved]. |
| 226.13. | [Reserved]. |
| 226.14. | [Reserved]. |
| 226.15—226.19. | [Reserved]. |
| 226.21—226.23. | [Reserved]. |
| 226.31—226.33. | [Reserved]. |
| 226.34. | [Reserved]. |
| 226.41—226.43. | [Reserved]. |
| 226.51. | [Reserved]. |

PARTICLE ACCELERATORS**226.61. Particle accelerators.****Authority**

The provisions of this Chapter 226 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. § 7110.301 and § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 226 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 78.111 (relating to abandonment); 25 Pa. Code § 215.32 (relating to exemption qualifications); and 25 Pa. Code § 217.1 (relating to purpose and scope).

GENERAL**§ 226.1. Purpose and scope.**

This chapter establishes radiation safety requirements for persons using radiation sources for well logging in a single well, radioactive markers, uranium sinker bars and subsurface tracer studies. Persons who use radiation sources for well

logging operations shall comply with this chapter, which is in addition to and not in substitution for other applicable requirements of this article, in particular, the requirements of Chapters 215, 217—220, 228 and 230.

Source

The provisions of this § 226.1 amended September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203978).

§ 226.2. [Reserved].

Source

The provisions of this § 226.2 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203978) to (203979).

§ 226.3. [Reserved].

Source

The provisions of this § 226.3 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203979).

§ 226.3a. Abandonment of a sealed source.

In addition to incorporation by reference of 10 CFR 39.15 and 39.77 (relating to agreement with well owner or operator; and notification of incidents and lost sources; abandonment procedures for irretrievable sources), the requirements of § 78.111 (relating to abandonment) shall also be met.

Source

The provisions of this § 226.3a adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282428).

§ 226.4. Incorporation by reference.

(a) Except as provided in this chapter, the requirements of 10 CFR Part 39 (relating to licenses and radiation safety requirements for well logging) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 39.5, 39.8, 39.101 and 39.103 are not incorporated by reference.

Source

The provisions of this § 226.4 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 226.5. Effect of incorporation of 10 CFR Part 39.

To reconcile differences between this chapter and the incorporated sections of 10 CFR Part 39, the following words and phrases shall be substituted for the language in 10 CFR Part 39 as follows:

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- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) The definition of "licensed material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 226.5 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 226.11. [Reserved].

Source

The provisions of this § 226.11 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203979) to (203980).

§ 226.12. [Reserved].

Source

The provisions of this § 226.12 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203980).

§ 226.13. [Reserved].

Source

The provisions of this § 226.13 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203980).

§ 226.14. [Reserved].

Source

The provisions of this § 226.14 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203980) to (203981).

§§ 226.15—226.19. [Reserved].

Source

The provisions of these §§ 226.15—226.19 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203982) to (203984).

§§ 226.21—226.23. [Reserved].**Source**

The provisions of these §§ 226.21—226.23 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203984) to (203985).

§§ 226.31—226.33. [Reserved].**Source**

The provisions of these §§ 226.31—226.33 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203985).

§ 226.34. [Reserved].**Source**

The provisions of this § 226.34 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203985) to (203986).

§§ 226.41—226.43. [Reserved].**Source**

The provisions of these §§ 226.41—226.43 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203986) to (203987).

§ 226.51. [Reserved].**Source**

The provisions of this § 226.51 adopted December 18, 1987, effective December 19, 1987, 17 Pa. B. 5235; amended June 19, 1992, effective June 20, 1992, 22 Pa. B. 3135; reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (203987) to (203989).

PARTICLE ACCELERATORS**§ 226.61. Particle accelerators.**

(a) A licensee or registrant may not permit aboveground testing of particle accelerators designed for use in well logging which results in the production of radiation, except in areas or facilities controlled or shielded so that the requirements of 10 CFR 20.1301 (relating to radiation dose to dose limits for individual members of the public) are met.

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(b) The use of particle accelerators for well logging shall be conducted under the licensing provisions of Chapter 228 (relating to radiation safety requirements for particle accelerators).

Source

The provisions of this § 226.61 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

APPENDIX A. [Reserved]**Source**

The provisions of this Appendix A reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203990).

APPENDIX B. [Reserved]**Source**

The provisions of this Appendix B reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (203991).

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**CHAPTER 227. RADIATION SAFETY REQUIREMENTS FOR
ANALYTICAL X-RAY EQUIPMENT, X-RAY GAUGING EQUIPMENT,
ELECTRON MICROSCOPES AND X-RAY CALIBRATION SYSTEMS**

GENERAL PROVISIONS

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| 227.1. | Purpose and scope. |
| 227.2. | Definitions. |
| 227.3. | [Reserved]. |

ANALYTICAL X-RAY EQUIPMENT

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| 227.11. | [Reserved]. |
| 227.11a. | Equipment requirements. |
| 227.12. | [Reserved]. |
| 227.12a. | Area requirements. |
| 227.13. | [Reserved]. |
| 227.13a. | Operating requirements. |
| 227.14. | Personnel requirements. |
| 227.15. | [Reserved]. |

X-RAY GAUGING EQUIPMENT

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| 227.21. | Warnings. |
| 227.22. | Radiation levels. |
| 227.23. | Personnel requirements. |
| 227.24. | [Reserved]. |
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ELECTRON MICROSCOPES

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| 227.31. | Warnings. |
| 227.32. | Radiation levels. |
| 227.33. | Personnel requirements. |
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| 227.51—227.53. | [Reserved]. |
| 227.61—227.71. | [Reserved]. |
| 227.81—227.85. | [Reserved]. |
| 227.91—227.97. | [Reserved]. |

X-RAY CALIBRATION SYSTEMS

- 227.101. Scope.
- 227.102. Area requirements.
- 227.103. Operating requirements.
- 227.104. Personal requirements.

Authority

The provisions of this Chapter 227 issued under section 301 of The Atomic Energy Development and Radiation Control Act (73 P. S. § 1301) (Repealed); and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 227 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 28 Pa. Code § 501.4 (relating to regulations); and 28 Pa. Code § 565.12 (relating to radiology service policy).

GENERAL PROVISIONS**§ 227.1. Purpose and scope.**

This chapter establishes the requirements for the use of analytical X-ray equipment, X-ray gauging equipment, electron microscopes and X-ray calibration sys-

tems. Registrants who use analytical X-ray equipment, X-ray gauging equipment, electron microscopes or X-ray calibration systems shall comply with this chapter. The requirements of this chapter are in addition to, and not in substitution for, other applicable provisions of this article.

Source

The provisions of this § 227.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282. Immediately preceding text appears at serial page (249334).

§ 227.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Analytical X-ray machine—An assembly of components utilizing X-rays to determine the elemental or chemical composition or to examine the microstructure of materials usually by X-ray diffraction or fluorescence.

Electron microscope—Equipment utilizing the wave characteristics of electrons that have been accelerated by an electric field to visualize the microscopic structure of material.

Fail-safe characteristics—A design feature which causes X-ray production to cease, beam port shutters to close or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.

Local components—Parts of an analytical X-ray system, such as radiation source housings, port and shutter assemblies, collimators, sample holders, cameras, goniometers, detectors and shielding, that contain or are in the path of the X-ray beam. The term does not include power supplies, transformers, amplifiers, readout devices and control panels.

Open-beam configuration—An analytical X-ray system in which the beam is not enclosed or shielded so any portion of an individual's body could accidentally be placed in the beam path during normal operation.

Operating procedures—Step-by-step instructions necessary to accomplish the analysis.

Primary beam—Radiation which passes through an aperture of the source housing by a direct path from the X-ray tube or a radioactive source located in the radiation source housing.

X-ray calibration systems—Radiation-producing machines and equipment used to calibrate radiation detection or measuring devices.

X-ray gauging equipment—A machine utilizing X-rays to detect, measure, gauge or control thickness, density, level or interface location.

Source

The provisions of this § 227.2 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282. Immediately preceding text appears at serial page (249335).

§ 227.3. [Reserved].**Source**

The provisions of this § 227.3 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119234) and (4919).

ANALYTICAL X-RAY EQUIPMENT**§ 227.11. [Reserved].****Source**

The provisions of this § 227.11 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (203996).

§ 227.11a. Equipment requirements.

(a) Open-beam configurations shall have a safety device which either prevents the entry of any portion of an individual's body into the primary X-ray beam path, or causes the beam to be terminated or interrupted upon entry into the path. A registrant may apply to the Department for an exemption from the requirement of a safety device. The application for an exemption shall include the following:

- (1) A description of the various safety devices that have been evaluated.
- (2) The reason each of these safety devices cannot be used.
- (3) A description of the alternative methods that will be employed to minimize the possibility of an accidental exposure, including procedures to assure that operators and others in the area will be informed of the absence of safety devices.

(b) Open-beam configurations shall be provided with a readily discernible indication of one or both of the following:

- (1) X-ray tube status (on-off) located near the radiation source housing, if the primary beam is controlled in this manner.
- (2) Shutter status (open-closed) located near each port on the radiation source housing, if the primary beam is controlled in this manner.

(c) Warning devices shall be labeled so that their purpose is easily identified. In addition, equipment manufactured after December 17, 1987, shall have fail-safe characteristics.

(d) An easily visible warning light located immediately adjacent to the tube head or port and labeled with the words "X-ray on," or words containing a similar warning, shall be provided and shall be illuminated when the X-ray tube is energized.

(e) Unused ports on radiation source housings shall be secured in the closed position in a manner which will prevent casual opening.

(f) Analytical X-ray equipment shall be labeled with a readily discernible sign bearing the radiation symbol and both of the following:

(1) "CAUTION—HIGH INTENSITY X-RAY BEAM" or words having a similar intent on the X-ray source housing.

(2) "CAUTION RADIATION—THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED," or words having a similar intent, near any switch that energizes an X-ray tube.

(g) On equipment with an open-beam configuration manufactured and installed after December 19, 1987, each port on the radiation source housing shall be equipped with a shutter that cannot be opened unless a collimator or coupling has been connected to the port.

(h) Equipment exclusively designed and exclusively used for vacuum spectroscopy where the tube housing and sample chamber is located behind all external surfaces of the unit shall be exempt from the requirements of this section, §§ 227.12a and 227.13a (relating to area requirements; and operating requirements), but shall meet the requirements of § 227.14 (relating to personnel procedures) and the following:

(1) The unit shall be designed so that when the unit is operating at the maximum kilovoltage and current ratings, the leakage radiation will not be in excess of 0.5 milliroentgens (.129 $\mu\text{C/kg}$) per hour at a distance of 4 centimeters from any external surface.

(2) Radiation surveys using appropriate radiation survey equipment shall be performed on the analytical X-ray unit upon installation, after moving the unit to a new location, and after maintenance or repair requiring the disassembly or removal of a local component or radiation shielding.

(3) Safety and warning devices shall be tested for proper operation at least annually. If the test reveals that a safety or warning device is not working properly, the unit may not be operated until the warning device is repaired or replaced.

(4) Records of all tests and surveys sufficient to show compliance with subsection (h) shall be maintained and kept available for inspection by the Department for 4 years.

(5) A sign bearing the radiation symbol and the words "CAUTION RADIATION—THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED," or words of similar intent shall be placed next to any switch or device that activates the X-ray tube.

(6) A sign bearing the radiation symbol and the words "CAUTION—RADIATION," or words of similar intent shall be placed next to the opening of the sample chamber.

Authority

The provisions of this § 227.11a issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 227.11a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285692) to (285693) and (282433).

§ 227.12. [Reserved].

Source

The provisions of this § 227.12 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (203997).

§ 227.12a. Area requirements.

(a) The source housing construction shall be of a type that when all the shutters are closed and the source is in any possible operating mode, the leakage radiation will not be in excess of 2.5 milliroentgens (.645 $\mu\text{C/kg}$) per hour at a distance of 5 centimeters from the housing surface.

(b) The X-ray generator shall have a protective cabinet constructed so that the leakage radiation will not be in excess of 0.5 milliroentgen (.129 $\mu\text{C/kg}$) per hour at a distance of 5 centimeters from the housing surface.

(c) The local components of an analytical X-ray system shall be located and arranged and shall include sufficient shielding or access control so that no radiation levels exist in any area surrounding the local component group which could result in a dose to an individual present therein in excess of the limits given in 10 CFR 20.1301 (relating to dose limits for individual members of the public). For systems utilizing X-ray tubes, these requirements shall be met at any specified tube rating.

(d) To show compliance with subsections (a)—(c), the registrant shall perform radiation surveys:

- (1) Upon installation of the equipment and at least every 12 months thereafter.
- (2) Following a change in the initial arrangement, number or type of local components in the system.
- (3) Following maintenance requiring the disassembly or removal of a local component in the system.

(4) During the performance of maintenance and alignment procedures if the procedures require the presence of a primary X-ray beam when a local component in the system is disassembled or removed.

(5) When a visual inspection of the local components in the system reveals an abnormal condition.

(6) When personnel monitoring devices show a significant increase in radiation exposure over the previous monitoring period or the readings are approaching the radiation dose limits.

(7) When the machine is operated in a manner other than the routine manner specified in § 227.13a (relating to operating requirements).

(e) The registrant shall test and inspect all safety and warning devices at least annually to insure their proper operation. If a safety or warning device is found to be malfunctioning, the machine shall be removed from service until repairs to the malfunctioning device are completed.

(f) Records of surveys and tests sufficient to show compliance with this chapter shall be maintained for 4 years and kept available for inspection by the Department.

(g) The equipment used to conduct the surveys and tests required in this chapter shall be adequate to measure the radiation produced by the radiation source.

Authority

The provisions of this § 227.12a issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 227.12a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282434) and (249339).

Cross References

This section cited in 25 Pa. Code § 227.11a (relating to equipment requirements); and 25 Pa. Code § 227.14 (relating to personnel requirements).

§ 227.13. [Reserved].

Source

The provisions of this § 227.13 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (203997) to (203998).

§ 227.13a. Operating requirements.

(a) Operating procedures shall be written and available to the analytical X-ray equipment operators. These procedures shall include instructions for sample insertion and manipulation, equipment alignment, routine maintenance and data recording procedures which are related to radiation safety. An individual may not operate analytical X-ray equipment in a manner other than that specified in the operating procedures unless the individual has obtained written approval from the radiation safety officer.

(b) An individual may not bypass or otherwise circumvent a safety device unless the individual has obtained the prior written approval of the radiation safety officer. The radiation safety officer may grant the permission only if the following conditions are met:

(1) The radiation safety officer establishes administrative controls and procedures to assure the radiation safety of individuals working around the system.

(2) The period for the bypass of the safety device is not more than 30 days unless written permission is obtained from the Department for a longer period.

(3) A readily discernible sign bearing the words "SAFETY DEVICE NOT WORKING," or words containing a similar warning, is placed on the radiation source housing.

(c) Except as specified in subsection (b), an operation involving removal of covers, shielding materials or tube housings or modifications to shutters, collimators or beam stops may not be performed without ascertaining that the tube is off and will remain off until safe conditions have been restored. The main switch, rather than interlocks, shall be used for routine shutdown in preparation for repairs.

(d) Emergency procedures shall be written and posted near the equipment and shall list the names and telephone numbers of personnel to contact. The emergency procedures shall also provide information necessary to de-energize the equipment, such as location and operation of the power supply or circuit breakers.

Authority

The provisions of this § 227.13a issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 227.13a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (249339) to (249340).

Cross References

This section cited in 25 Pa. Code § 227.11a (relating to equipment requirements); and 25 Pa. Code § 227.12a (relating to area requirements).

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§ 227.14. Personnel requirements.

(a) An individual may not operate or maintain analytical X-ray equipment unless the individual has received instruction in and demonstrated competence as to:

- (1) Identification of radiation hazards associated with the use of the equipment.
- (2) Significance of the various radiation warning and safety devices incorporated into the equipment, or the reasons they have not been installed on certain pieces of equipment, and the extra precautions necessary if the devices are absent or bypassed.
- (3) Written operating and emergency procedures for the equipment.
- (4) Symptoms of an acute localized radiation exposure.
- (5) Procedures for reporting an actual or suspected exposure.
- (6) Use of survey and personnel monitoring equipment.
- (7) The applicable regulations of this article and those incorporated by reference.

(b) Finger or wrist personnel monitoring devices shall be provided to and shall be used by:

- (1) Analytical X-ray equipment workers using systems having an open-beam configuration and not equipped with a safety device as described in § 227.12a(c) (relating to area requirements).
- (2) Personnel maintaining analytical X-ray equipment if the maintenance procedures require the presence of a primary X-ray beam when a local component in the analytical X-ray system is disassembled or removed or when safety devices are bypassed.

(c) Reported dose values may not be used for the purpose of determining compliance with 10 CFR 20.1201 (relating to occupational dose limits for adults) unless they are evaluated by a qualified expert.

(d) The registrant or licensee shall notify the Department within 5 days of a suspected radiation overexposure to an individual from analytical X-ray machines. This notification is required even if subsequent investigation reveals no actual over-exposure actually occurred.

Authority

The provisions of this § 227.14 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. 510-20).

Source

The provisions of this § 227.14 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249340) to (249341).

Cross References

This section cited in 25 Pa. Code § 227.11a (relating to equipment requirements).

§ 227.15. [Reserved].**Source**

The provisions of this § 227.15 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (203999) to (204000).

X-RAY GAUGING EQUIPMENT**§ 227.21. Warnings.**

X-ray gauging equipment shall be labeled with a readily discernable sign or signs bearing the radiation symbol and the words, "Caution Radiation—This Equipment Produces Radiation When Energized," or words containing a similar warning.

Source

The provisions of this § 227.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4922).

§ 227.22. Radiation levels.

An X-ray tube housing shall be constructed so that, with the unit in normal operation, the leakage radiation measured 5 centimeters from a surface is no more than 2.5 milliroentgens (645 nC/kg) per hour.

Source

The provisions of this § 227.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4922).

§ 227.23. Personnel requirements.

No registrant may permit an individual to operate or conduct maintenance upon X-ray gauging equipment until the individual has received a copy of and instruction in, and demonstrated an understanding of, the operating procedures necessary to ensure radiation safety.

Source

The provisions of this § 227.23 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4922) to (4923).

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§ 227.24. [Reserved].**Source**

The provisions of this § 227.24 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4923) to (4924).

§ 227.25. [Reserved].**Source**

The provisions of this § 227.25 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4924) to (4937).

ELECTRON MICROSCOPES**§ 227.31. Warnings.**

An electron microscope shall be labeled with a readily discernable sign bearing the words, "Caution Radiation—This Equipment Produces Radiation When Energized," or words containing a similar warning.

Source

The provisions of this § 227.31 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4937).

§ 227.32. Radiation levels.

Radiation levels measured 5 centimeters from any accessible surface of an electron microscope may not exceed .5 milliroentgen (129 nC/kg) per hour.

Source

The provisions of this § 227.32 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4938).

§ 227.33. Personnel requirements.

A registrant may not permit an individual to operate or conduct maintenance upon any electron microscope until the individual has received a copy of, instruction in, and demonstrated an understanding of, the operating procedures necessary to insure radiation safety.

Authority

The provisions of this § 227.33 amended under sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

Source

The provisions of this § 227.33 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235; amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204002).

§§ 227.41—227.44. [Reserved].**Source**

The provisions of these §§ 227.41—227.44 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4938) to (4941).

§§ 227.51—227.53. [Reserved].**Source**

The provisions of these §§ 227.51—227.53 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4941) to (4942).

§§ 227.61—227.71. [Reserved].**Source**

The provisions of these §§ 227.61—227.71 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4942) to (4948).

§§ 227.81—227.85. [Reserved].**Source**

The provisions of these §§ 227.81—227.85 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4949) to (4951).

§§ 227.91—227.97. [Reserved].**Source**

The provisions of these §§ 227.91—227.97 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4951) to (4955).

X-RAY CALIBRATION SYSTEMS**§ 227.101. Scope.**

This section and §§ 227.102—227.104 apply to registrants who use X-ray producing machines to calibrate or test radiation detection or measuring devices.

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Authority

The provisions of this § 227.101 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302).

Source

The provisions of this § 227.101 adopted November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282.

§ 227.102. Area requirements.

A room or enclosure used for testing or calibration shall be shielded so that every location on the exterior meets conditions for an unrestricted area, and the only access to the room or enclosure is through openings which are interlocked so that the radiation source will not operate unless all openings are securely closed and meet the requirements of 10 CFR 20.1601 (relating to control of access to high radiation areas).

Authority

The provisions of this § 227.102 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302).

Source

The provisions of this § 227.102 adopted November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282.

Cross References

This section cited in 25 Pa. Code § 227.101 (relating to scope).

§ 227.103. Operating requirements.

(a) The operator shall conduct a physical radiation survey to determine that the radiation machine X-ray tube is de-energized prior to each entry of any body part into the X-ray exposure area.

(b) As an alternative to subsection (a), the registrant may use an independent radiation monitoring system that displays the radiation intensity or displays when radiation levels have returned to their pre-irradiation levels.

Authority

The provisions of this § 227.103 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302).

Source

The provisions of this § 227.103 adopted November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282.

Cross References

This section cited in 25 Pa. Code § 227.101 (relating to scope).

§ 227.104. Personnel requirements.

A registrant may not permit an individual to operate or conduct maintenance on any X-ray calibration system until the individual has received a copy of, instruction in, and demonstrated an understanding of, the operating procedures necessary to ensure radiation safety.

Authority

The provisions of this § 227.104 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302).

Source

The provisions of this § 227.104 adopted November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282.

Cross References

This section cited in 25 Pa. Code § 227.101 (relating to scope).

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CHAPTER 228. RADIATION SAFETY REQUIREMENTS FOR PARTICLE ACCELERATORS

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Authority

The provisions of this Chapter 228 issued and amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. § 7110.301 and § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 228 adopted December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 216.1 (relating to purpose and scope); 25 Pa. Code § 216.3 (relating to exemptions); 25 Pa. Code § 218.1 (relating to purpose and scope); 25 Pa. Code § 218.11 (relating to registration, renewal of registration and license fees); 25 Pa. Code § 225.1 (relating to purpose and scope); 25 Pa. Code § 226.1 (relating to purpose and scope); and 25 Pa. Code § 266.61 (relating to particle accelerators).

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GENERAL PROVISIONS

§ 228.1. Purpose and scope.

This chapter establishes radiation safety requirements for persons utilizing particle accelerators for industrial, research or medical purposes. Persons who use particle accelerators shall comply with this chapter. The requirements in this chapter are in addition to and not in substitution for other applicable requirements of this article.

§ 228.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Accelerator or *particle accelerator*—A radiation-producing machine that imparts kinetic energies of one of the following:

- (i) One-tenth of one MeV or greater to electrons if the electron beam is brought out of the evacuated region of the unit.
- (ii) One MeV or greater to electrons if the electrons are utilized for X-ray production.
- (iii) One-tenth of one MeV or greater to other particles.

Applicator—A structure which determines the extent of the treatment field at a given distance from the virtual source.

Beam-limiting device—A device providing a means to restrict the dimensions of the X-ray field.

Beam scattering filter—A filter used to scatter a beam of electrons.

Central axis of the beam—A line passing through the virtual source and the center of the plane figure formed by the edge of the first beam limiting device.

Dose monitoring system—A system of devices for the detection, measurement and display of quantities of radiation.

Dose monitor unit—A unit response from the dose monitoring system from which the absorbed dose can be calculated.

Existing equipment—Systems manufactured on or before October 3, 1998.

Field flattening filter—A filter used to provide dose uniformity over the area of a useful beam of X-rays at a specified depth.

Field size—The configuration of the radiation field along the major axes of an area in a plane perpendicular to the specified direction of the beam of incident radiation at the normal treatment distance and defined by the intersection of the major axes and the 50% isodose line.

Filter—Material placed in the useful beam to modify the spectral energy distribution and flux of the transmitted radiation and remove radiation that does not contribute to the efficacy of the useful beam.

Isocenter—A fixed point in space located at the center of the smallest sphere through which the central axes of the beams pass.

Leakage radiation—Radiation emanating from the source assembly except for the following:

- (i) The useful beam.
- (ii) Radiation produced when the exposure switch or timer is not activated.

Moving beam therapy—Radiation therapy with relative displacement of the useful beam and the patient during irradiation.

New equipment—Systems manufactured after January 1, 1985.

Normal treatment distance—

- (i) For isocentric equipment, the isocenter.
- (ii) For nonisocentric equipment, the target to patient skin distance along the central axis as specified by the manufacturer.

Particle accelerator—See the definition of “accelerator.”

Phantom—A volume of material behaving in a manner similar to tissue with respect to the attenuation and scattering of radiation.

Primary dose monitoring system—A system which will monitor the useful beam during irradiation and which will terminate irradiation when a preselected number of dose monitor units have been attained.

Radiation detector—A device which provides a signal or other indication suitable for measuring one or more quantities of incident radiation.

Radiation head—The structure from which the useful beam emerges.

Secondary dose monitoring system—A system which will terminate irradiation in the event of failure of the primary dose monitoring system.

Shadow tray—A device attached to the radiation head to support auxiliary beam limiting material.

Spot check—A procedure to assure that a previous calibration continues to be valid.

Stationary beam therapy—Radiation therapy without relative displacement of the useful beam and the patient during irradiation.

Subsystem—A combination of two or more components of an accelerator.

Target—The part of a radiation source which intercepts a beam of accelerated particles with subsequent emission of other radiation.

Tube housing assembly—The term includes high-voltage or filament transformers, or both, and other appropriate elements when contained within the tube housing.

Useful beam—The radiation which passes through the tube housing port and the aperture of the beam-limiting device when the exposure switch or timer is activated.

Virtual source—The nominal location of either the first scattering foil (for equipment providing electrons only) or the photon focal spot (for equipment capable of delivering both photons and electrons).

Wedge filter—An added filter effecting continuous progressive attenuation on all or part of the useful beam.

Source

The provisions of this § 228.2 amended October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249347) to (249349).

Cross References

This section cited in 25 Pa. Code § 216.1 (relating to purpose and scope).

§ 228.3. Sale and installation.

A person may not sell or install an accelerator that does not meet the provisions of this article.

Source

The provisions of this § 228.3 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

ADMINISTRATIVE CONTROLS**§ 228.11. [Reserved].****Source**

The provisions of this § 228.11 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204010).

§ 228.11a. Licensee responsibilities.

(a) A person may not possess, operate or permit the operation of an accelerator unless the accelerator and installation meet the applicable requirements of this article.

(b) Written safety procedures and rules shall be available at a facility, including restrictions of the operating technique required for the safe operation of the particular accelerator. The operator shall be able to demonstrate familiarity with the rules.

(c) An individual may not be exposed to the useful beam except for healing arts purposes. An exposure shall be authorized by a licensed practitioner of the healing arts.

Source

The provisions of this § 228.11a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249349) to (249350).

§ 228.12. Information and maintenance record and associated information.

The licensee shall maintain records of surveys, calibrations, maintenance, machine malfunctions and modifications performed on the accelerators, including

the names of persons who performed the services. The licensee shall keep these records for inspection by the Department for 5 years.

Source

The provisions of this § 228.12 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (249530).

NOTIFICATION AND LICENSING PROCEDURES

§ 228.21. [Reserved].

Source

The provisions of this § 228.21 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204011).

§ 228.21a. Notification and license requirements.

(a) A person who intends to purchase, construct or acquire an accelerator shall notify the Department of this intent by filing an application for a specific license within 30 days after the initial order is issued to obtain any or all parts of the accelerator.

(1) The application shall be filed in duplicate on a form prescribed by the Department and shall be accompanied by the required fee as described in § 218.11(d) (relating to registration, renewal of registration and license fees).

(2) The application shall contain pertinent information to permit the Department to evaluate the accelerator facility for compliance with the act and this article.

(b) In addition to the notification requirement in subsection (a), a person who intends to install an accelerator shall notify the Department within 30 days after the initial construction or installation begins.

(c) Except as provided in subsection (d), a person may not operate a particle accelerator after October 3, 1998, without having obtained a license from the Department.

(d) A registrant possessing an accelerator before October 3, 1998, may continue to operate the accelerator provided an application for a license is filed in duplicate with the Department by October 4, 1999.

(e) The Department may, after the filing of an original application, and before the expiration of the license, require further information to enable the Department to determine whether the application will be granted or denied or whether a license will be modified or revoked.

(f) The application shall be signed by the applicant or licensee or an individual authorized by the applicant or licensee.

(g) A license issued under this chapter may not be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, to any person except through submission of a written request by the licensee to the Department for approval.

Source

The provisions of this § 228.21a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249350) and (285701).

Cross References

This section cited in 25 Pa. Code § 228.24a (relating to renewal of licenses); and 25 Pa. Code § 228.25a (relating to amendment of license at the request of the licensee).

§ 228.22. [Reserved].

Source

The provisions of this § 228.22 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204011).

§ 228.22a. Issuance of specific licenses.

(a) Upon determination that an application meets the requirements of the act and this article, the Department will issue a specific license authorizing the proposed activity and containing conditions and limitations as it deems appropriate or necessary.

(b) After the issuance of the license, the Department may, by appropriate regulations or order, incorporate additional requirements and conditions with respect to the licensee's receipt, possession, use and transfer of the accelerator subject to this chapter as it deems appropriate or necessary in order to:

- (1) Protect the public health and safety or property.
- (2) Prevent loss or theft of material subject to this chapter.

Source

The provisions of this § 228.22a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282. Immediately preceding text appears at serial page (249351).

§ 228.23. [Reserved].

Source

The provisions of this § 228.23 amended November 17, 1995, effective November 28, 1995, 25 Pa.B. 5085; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (204011) to (204012).

§ 228.23a. Expiration and termination of a license.

(a) Except as provided in § 228.24a (relating to renewal of licenses), and subject to subsection (d)(5)(ii), a specific license expires on the date specified in the license. A license is effective for 5 years.

(b) A licensee shall notify the Department in writing when the licensee decides to permanently discontinue activities involving the accelerator authorized under the license and request termination of the license. The notification and request for termination shall include the reports and information specified in subsection (d)(3)—(5). The licensee is subject to subsections (d) and (e), as applicable, until termination.

(c) At least 30 days before the expiration date specified in a specific license, the licensee shall do one of the following:

(1) Submit an application for license renewal under § 228.24a.

(2) Notify the Department in writing if the licensee decides not to renew the license.

(d) If the licensee does not submit an application for license renewal under § 228.24a on or before the expiration date specified in the license, the licensee shall:

(1) Terminate the use of, and transfer or dispose of the accelerator.

(2) Properly dispose of incidental radioactive material generated by the operation of the accelerator.

(3) Submit a completed Department Form 2900-PM-RP0314, "Certificate of Disposition of Materials," describing the disposition of materials in paragraph (2).

(4) Submit a radiation survey report to confirm the absence of radioactive materials or establish the levels of residual radioactive contamination unless the Department determines a radiation survey report is not necessary. This report shall include:

(i) The levels of beta and gamma radiation (in units of microrems or microsieverts, or in microrads or micrograys per hour) at 1 centimeter and gamma radiation at 1 meter from surfaces, levels of removable and fixed alpha, beta and gamma contamination on surfaces (in becquerels or microcuries per 100 square centimeters), and concentrations of contamination in soils (in units of picocuries or becquerels per gram) or in water (in units of picocuries or becquerels per liter) where soil and water concentrations are reported.

(ii) The survey instrumentation used to perform these surveys.

(5) Proceed with one of the following:

(i) Submit a certification that no detectable radioactive contamination was found if no residual contamination attributable to activities conducted

under the license is detected. If the information submitted under this section is adequate, the Department will notify the licensee in writing that the license is terminated.

(ii) Continue the license in effect beyond the expiration date. If necessary, with respect to possession of residual radioactive material present as contamination if detectable levels of residual radioactive contamination attributable to activities conducted under the license are found, until the Department notifies the licensee in writing that the license is terminated. During this time, the licensee shall comply with subsection (c), in addition to the information submitted under paragraphs (3) and (4) and this paragraph, the licensee shall submit a plan for decontamination, if necessary.

(e) A licensee who possesses residual radioactive material under subsection (d)(5)(ii) following the expiration date specified in the license, shall:

(1) Limit activities involving radioactive materials to those activities which are solely related to decontamination and other activities related to preparation for release for unrestricted use.

(2) Continue to control entry to restricted areas until the restricted areas are suitable for release for unrestricted use and until the Department notifies the licensee in writing that the license is terminated.

Source

The provisions of this § 228.23a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285702) and (249353).

§ 228.24. [Reserved].

Source

The provisions of this § 228.24 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204012).

§ 228.24a. Renewal of licenses.

(a) An application for renewal of a specific license shall be filed under § 228.21a (relating to notification and license requirements).

(b) If a renewal application is filed prior to 30 days before the expiration of a license, the existing license does not expire until definitive notice has been given by the Department of its action on the renewal application. This subsection also applies to new license applications incorporating other licenses.

Source

The provisions of this § 228.24a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 228.23a (relating to expiration and termination of a license).

§ 228.25. [Reserved].**Source**

The provisions of this § 228.25 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial pages (204012) to (204013).

§ 228.25a. Amendment of license at the request of the licensee.

A licensee filing an application for an amendment shall utilize the procedures in § 228.21a (relating to notification and license requirements). The application shall specify the requested amendment and the reason for the amendment.

Source

The provisions of this § 228.25a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.26. [Reserved].**Source**

The provisions of this § 228.26 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204013).

§ 228.26a. Department action on applications to renew and amend.

In considering an application by a licensee to renew or amend a license, the Department will apply criteria in the act and this article.

Source

The provisions of this § 228.26a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

GENERAL RADIATION SAFETY REQUIREMENTS**§ 228.31. [Reserved].****Source**

The provisions of this § 228.31 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204013).

§ 228.31a. Limitations.

(a) The facility shall operate within the terms and conditions of the license issued for the operation of the accelerator.

(b) A licensee may not permit an individual to act as an operator of an accelerator until the individual:

(1) Has been instructed in radiation safety and has demonstrated an understanding thereof.

(2) Has received copies of and instruction in this chapter and Chapters 219 and 220 (relating to standards for protection against radiation; and notices, instructions and reports to workers; inspections and investigations), pertinent license conditions and the licensee's operating and emergency procedures and demonstrated understanding thereof.

(3) Has demonstrated competence to use the accelerator, related equipment and survey instruments which will be utilized in that individual's assignment.

(c) The radiation safety officer shall have the authority to restrict or terminate operations at an accelerator facility if the action is necessary to minimize danger to health and safety, property or the environment.

Source

The provisions of this § 228.31a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249354) and (282437).

§ 228.32. [Reserved].

Source

The provisions of this § 228.32 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204013).

§ 228.32a. Shielding and safety design requirements.

(a) The licensee shall consult a qualified expert for radiation protection concerning the shielding design of an accelerator installation.

(b) An accelerator facility shall have primary and secondary protective barriers that are necessary to assure compliance with 10 CFR Part 20, Subpart D (relating to dose limits for individual members of the public).

Source

The provisions of this § 228.32a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282437).

Cross References

This section cited in 25 Pa. Code § 228.39 (relating to records).

§ 228.33. [Reserved].

Source

The provisions of this § 228.33 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204013).

§ 228.33a. Facility and shielding requirements.

In addition to the requirements in Chapter 219 (relating to standards for protection against radiation), the following are required:

- (1) The control panel shall be located outside the treatment or irradiation room.
- (2) For accelerators not used in the healing arts, provision shall be made to permit continuous observation of the material being irradiated and any transfer or conveyance of material within the irradiation room.
- (3) For accelerators used in the healing arts, provision shall be made to permit continuous observation of and communication with the patient during irradiation.
- (4) Windows, mirror systems or closed-circuit television viewing screens used for observing the patient or the material being irradiated shall be located so that the operator can maintain direct surveillance over both the control panel and the patient or the material being irradiated.
- (5) If the surveillance conducted under paragraph (4) is provided solely by electronic means, and if a malfunction of this surveillance equipment occurs, irradiation activities shall cease until repair of that surveillance equipment is performed and the equipment is found to be functioning normally.
- (6) Irradiation or treatment room entrances shall be provided with warning lights in a readily observable position near the outside of access doors. These will indicate when the useful beam is on.
- (7) Interlocks shall be provided so that entrance or access doors are closed before irradiation or treatment can be initiated or continued.
- (8) For accelerators used to irradiate materials by means of a transfer or conveyance system, a means shall be provided which either terminates the irradiation or prevents entry if an individual attempts access to the irradiation room.

Source

The provisions of this § 228.33a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.34. [Reserved].**Source**

The provisions of this § 228.34 amended November 17, 1995, effective November 18, 1995, 25 Pa.B. 5085; reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204014).

§ 228.34a. Accelerator controls and interlock systems.

- (a) Instrumentation, readouts and controls on the accelerator control console shall be clearly identified and easily discernible.

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(b) Entrances into a target room or high radiation areas shall have interlocks that meet the requirements of 10 CFR Part 20, Subpart G (relating to control of exposure from external sources in restricted areas) and 10 CFR 20.1902 (relating to posting requirements). If the radiation beam is interrupted by a door opening, it shall be possible to reinitiate the radiation exposure only by closing the door first and then by manual action at the control panel.

(c) When an interlock system has been tripped, it shall only be possible to resume operation of the accelerator by manually resetting controls at the interlock position, and lastly at the main control console.

(d) Safety interlocks shall be fail-safe, that is, designed so that a defect or component failure in the interlock system prevents operation of the accelerator.

(e) A scram button or other emergency power cutoff switch shall be located and easily identifiable in all high radiation areas. The cutoff switch shall include a manual reset so that the accelerator cannot be restarted from the accelerator control console without resetting the cutoff switch.

Source

The provisions of this § 228.34a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282438) and (285703).

§ 228.35. Operating procedures.

(a) Accelerators, when not in operation, shall be secured to prevent unauthorized use.

(b) An interlock may not be used to turn off the accelerator beam except in an emergency or for testing the interlock.

(c) Each safety and warning device, including interlocks, shall be checked at least every 3 months for proper functioning and shall be repaired as necessary. Results of these checks and records of repairs shall be maintained for 4 years at the accelerator facility for inspection by the Department.

(d) In the event of a malfunction of a safety or warning device, the accelerator may not be operated unless appropriate interim precautions are instituted to provide equivalent protection.

(e) If it is necessary to intentionally bypass a safety interlock system or component thereof, the action shall be the following:

(1) Authorized in writing by the radiation safety officer.

(2) Recorded in a permanent log and a notice posted at the accelerator operator's position.

(3) Terminated as soon as possible.

(f) A copy of the current operating and emergency procedures shall be maintained in the accelerator operator area.

(g) For accelerators used in the healing arts, operating procedures shall meet the following requirements:

(1) No individual other than the patient is in the treatment room during treatment of a patient.

(2) If a patient must be held in position during treatment, mechanical supporting or restraining devices shall be used.

(3) The system may not be used in the administration of radiation therapy unless the requirements of this chapter have been met.

(4) A medical reportable event for radiation-producing machine therapy, as defined in § 219.3 (relating to definitions), shall be reported as required under § 219.228 (relating to reports of medical reportable events for radiation-producing machine therapy).

(5) An individual who operates an accelerator system shall be instructed adequately in the safe operating procedures and be competent in the safe use of the equipment. The instructions shall include, but not be limited to, items included in Appendix A (relating to determination of competence). There shall be continuing education in radiation safety, biological effects of radiation, quality assurance and quality control.

Source

The provisions of this § 228.35 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (285703) to (285704).

Cross References

This section cited in 25 Pa. Code § 228.39 (relating to records).

§ 228.36. Radiation monitoring requirements.

An independent radiation monitoring system shall be provided so that the individuals entering or present in a potential very high radiation area become aware of the existence of the hazard. Independent radiation monitors shall be tested for response at least annually and after each servicing or repair.

Source

The provisions of this § 228.36 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended November 16, 2001, effective November 17, 2001, 31 Pa.B. 6282. Immediately preceding text appears at serial pages (282440) to (282441).

Cross References

This section cited in 25 Pa. Code § 228.39 (relating to records).

§ 228.37. Production of radioactive material.

(a) A licensee who produces radioactive material incidental to the operation of an accelerator shall comply with the general license requirements of § 217.144 (relating to incidental radioactive material produced by a particle accelerator).

(b) A licensee possessing radioactive material intentionally produced by bombarding nonradioactive material with the accelerator beam shall comply with the specific license requirements of Chapter 217 (relating to licensing of radioactive material).

Source

The provisions of this § 228.37 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial page (282441).

§ 228.38. Radiation safety surveys.

(a) Prior to first use, a facility shall have a survey made by, or under the direction of, a qualified expert for radiation protection. A survey shall also be done after a change in the facility or equipment, including a relocation of the equipment within the irradiation or treatment room.

(b) The qualified expert shall report the survey results in writing to the individual in charge of the facility and a copy of the initial report shall be maintained by the licensee for inspection by the Department for the life of the facility. Other survey reports shall be maintained for inspection by the Department for 4 years. The facility shall be operated in compliance with limitations indicated by the survey.

(c) The report of the survey results shall include:

- (1) The date of the measurements.
- (2) The reason the survey is required.
- (3) The manufacturer's name, model number and serial number of the therapeutic radiation machine accelerator.
- (4) The instrument used to measure radiation levels.
- (5) A plan of the areas surrounding the treatment room that were surveyed.
- (6) The measured dose rate at several points in each area expressed in microsieverts or millirems per hour.
- (7) The calculated maximum level of radiation over a period of 1 year for each restricted and unrestricted area.
- (8) The signature of the individual who conducted or is responsible for conducting the survey.

(d) If the survey required by subsection (a) indicates that an individual in an unrestricted area may be exposed to levels of radiation greater than those permitted by 10 CFR 20.1201 (relating to occupational dose limits for adults) or 10 CFR 20.1301 (relating to dose limits for individual members of the public), the licensee shall do the following:

- (1) Either equip the unit with beam direction interlocks or add additional radiation shielding to ensure compliance with Chapter 219 (relating to standards for protection against radiation).
- (2) Perform the survey required by subsection (a) again.

(3) Prepare and submit the report required by subsection (a). The report shall also include:

- (i) The results of the initial survey.
- (ii) A description of the modification made to comply with this section.
- (iii) The results of the second survey.

Source

The provisions of this § 228.38 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282441) to (282442).

Cross References

This section cited in 25 Pa. Code § 228.39 (relating to records).

§ 228.39. Records.

In addition to the requirements of 10 CFR Part 20, Subpart L (relating to records), the licensee shall maintain:

- (1) Records of the tests and safety and warning devices described in § 228.35 (relating to operating procedures).
- (2) The surveys described in §§ 228.32a and 228.38 (relating to shielding and safety design requirements; and radiation safety survey).
- (3) The radiation monitoring equipment calibrations and repairs of that equipment under § 228.36 (relating to radiation monitoring requirements).

Source

The provisions of this § 228.39 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282442).

**RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL
AND RESEARCH ACCELERATORS**

§ 228.41. [Reserved].

Source

The provisions of this § 228.41 reserved October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894. Immediately preceding text appears at serial page (204014).

§ 228.41a. Warning devices.

- (a) A location designated as a high radiation area and an entrance to the location shall be equipped with easily observable warning lights that operate only when radiation is being produced.
- (b) A high radiation area shall meet the requirements of 10 CFR 20.1601 (relating to control of access to high radiation areas).

Source

The provisions of this § 228.41a adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282443).

§ 228.42. Circuit diagrams.

Electrical circuit diagrams of the accelerator and the associated safety, warning and interlock systems shall be kept current and maintained for inspection by the Department and shall be available to the operator at an accelerator facility.

Source

The provisions of this § 228.42 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.43. Radiation surveys.

(a) Periodic surveys shall be made to determine the amount of airborne radioactivity present in areas of airborne hazards.

(b) Periodic smear surveys shall be made to determine the amount of contamination in target and other pertinent areas.

(c) Area surveys shall be made in accordance with the written procedures established by a qualified expert for radiation protection or the radiation safety officer of the accelerator facility.

(d) Records of surveys shall be kept current and on file at an accelerator facility. Records of surveys shall be maintained as described in 10 CFR Part 20, Subpart L (relating to records).

Source

The provisions of this § 228.43 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial page (282443).

§ 228.44. Ventilation systems.

(a) A licensee shall control the concentration of radioactive material in air to meet the requirements of 10 CFR 20.1204 (relating to determination of internal exposure).

(b) A licensee may not vent, release or otherwise discharge airborne radioactive material to an unrestricted area which does not meet the requirements of 10 CFR 20.1301 (relating to dose limits for individual members of the public). Every reasonable effort shall be made to maintain releases of radioactive material to uncontrolled areas as far below these limits as practicable. Compliance with this section shall be demonstrated as described in 10 CFR 20.1302 (relating to compliance with dose limits for individual members of the public).

Source

The provisions of this § 228.44 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (282443) to (282444).

§ 228.45. Portable or mobile accelerators.

Portable or mobile accelerators used for industrial radiography or research shall comply with Chapter 225 (relating to radiation safety requirements for industrial radiographic operations).

Source

The provisions of this § 228.45 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

**RADIATION SAFETY REQUIREMENTS FOR
ACCELERATORS USED IN THE HEALING ARTS****§ 228.61. Leakage radiation to the patient area.**

(a) New equipment shall meet the following requirements:

(1) For operating conditions producing maximum leakage radiation, the dose due to leakage radiation, including X-rays, electrons and neutrons, at any point on a circle of 2 meters radius centered on and perpendicular to the central axis of the beam at the isocenter or normal treatment distance and outside the maximum useful beam size, may not exceed 0.1% of the maximum dose of the unattenuated useful beam measured at the point of intersection of the central axis of the beam and the plane surface. Measurements, excluding those for neutrons, shall be averaged over an area up to, but not exceeding, 100 square centimeters at the position specified. Measurements of the portion of the leakage radiation dose contributed by neutrons shall be averaged over an area up to, but not exceeding, 200 square centimeters.

(2) For each system, the licensee shall determine or obtain from the manufacturer the leakage radiation existing at the positions specified in paragraph (1) for the specified operating conditions. The licensee shall maintain records for 5 years on leakage radiation measurements for inspection by the Department.

(b) Existing equipment shall meet the following requirements:

(1) For operating conditions producing maximum leakage radiation, the absorbed dose due to leakage radiation, including neutrons, at any point on a circle of 2 meters radius centered on and perpendicular to the central axis of the beam 1 meter from the virtual source, may not exceed 0.1% of the maximum absorbed dose of the unattenuated useful beam measured at the point of intersection of the central axis of the beam and the surface of the circular plane. Measurements shall be averaged over an area up to but not exceeding 100 square centimeters at the positions specified.

(2) For each system, the licensee shall have available the leakage radiation data existing at the positions specified in paragraph (1) for the specified operating conditions. The licensee shall maintain records on radiation leakage for 5 years for inspection by the Department.

Source

The provisions of this § 228.61 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (282444) and (249363).

Cross References

This section cited in 25 Pa. Code § 228.62 (relating to leakage radiation outside the patient area for new equipment).

§ 228.62. Leakage radiation outside the patient area for new equipment.

(a) The absorbed dose due to leakage radiation except in the area specified in § 228.61(a)(1) (relating to leakage radiation to the patient area) when measured at any point 1 meter from the path of the charged particles, before the charged particles strike the target or window, may not exceed 0.1% for X-ray leakage nor 0.5% for neutron leakage of the maximum absorbed dose of the unattenuated useful beam measured at the point of intersection of the central axis of the beam and the circular plane specified in § 228.61(a)(1).

(b) The licensee shall determine or obtain from the manufacturer, the actual leakage radiation existing at the positions specified in subsection (a) for specified operating conditions. Radiation measurements, including neutrons, shall be averaged over an area up to but not exceeding 200 square centimeters.

Source

The provisions of this § 228.62 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.63. Beam limiting devices.

Adjustable or interchangeable beam limiting devices shall be provided and the devices may transmit no more than 5% of the useful beam at the normal treatment distance. The neutron component of the useful beam may not be included to comply with this requirement.

Source

The provisions of this § 228.63 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.64. Filters.

(a) A filter which is removable from the system shall be clearly identified. Documentation shall contain a description of the filter which includes a drawing showing dimensions and noting materials of construction.

(b) For new equipment which utilizes a system of wedge filters, interchangeable field flattening filters or interchangeable beam scattering filters the following apply:

(1) Irradiation may not be possible until a selection of a filter has been made at the control panel.

(2) An interlock system shall be provided to prevent irradiation if the filter selected is not in the correct position.

(3) An interlock shall be provided to prevent irradiation if a filter selection operation carried out in the treatment room does not agree with the filter selection operation carried out at the control panel.

Source

The provisions of this § 228.64 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.65. Electron beam quality.

The licensee shall determine that the following beam quality requirements are met:

(1) The absorbed dose resulting from X-rays in a useful electron beam at a point on the central axis of the beam 10 centimeters greater than the practical range of the electrons may not exceed the values in Table I. Linear interpolation shall be used for values not stated.

Table I

| <i>Maximum Energy of Electron Beam in MeV</i> | <i>X-Ray Absorbed Dose as a Fraction of Maximum Absorbed Dose</i> |
|---|---|
| 1 | 0.03 |
| 15 | 0.05 |
| 35 | 0.10 |
| 50 | 0.20 |

(2) Compliance with paragraph (1) shall be determined using:

(i) A measurement within a phantom with the incident surface of the phantom at the normal treatment distance and normal to the central axis of the beam.

(ii) The largest field size available which does not exceed 15 centimeters by 15 centimeters.

(iii) A phantom whose cross-sectional dimensions exceed the measurement radiation field by at least 5 centimeters and whose depth is sufficient to perform the required measurement.

(3) The licensee shall determine, or obtain from the manufacturer, the maximum percentage absorbed dose due to stray neutrons in the useful beam for specified operating conditions.

Source

The provisions of this § 228.65 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.66. Beam monitors.

(a) Therapy systems shall be provided with radiation detectors in the radiation head.

(b) New equipment shall be provided with at least two radiation detectors incorporated into two separate dose monitoring systems.

(c) Existing equipment shall be provided with at least one radiation detector incorporated into a primary dose monitoring system.

(d) The detector in a dose monitoring system shall be:

(1) Permanently installed and interlocked to prevent incorrect positioning.

(2) Part of a dose monitoring system that provides readings in dose monitor units which can be used to calculate the absorbed dose at a reference point in the treatment volume.

(3) Capable of independently monitoring and controlling the useful beam.

(e) For new equipment, the design of dose monitoring systems shall assure that:

(1) The malfunctioning of one system does not affect the correct functioning of the second system.

(2) The failure of an element common to both systems which could affect the correct function of both systems terminates irradiation.

(f) A dose monitoring system shall have a legible display at the control panel. For new equipment, a display shall:

(1) Maintain a reading until intentionally reset to zero.

(2) Have only one scale and no scale multiplying factors.

(3) Utilize a design so that increasing dose is displayed by increasing numbers and that the absorbed dose may be accurately determined under all conditions of use.

(4) Provide that, in the event of a power failure, the dose monitoring information required in this subsection displayed at the control panel at the time of failure shall be retrievable.

Source

The provisions of this § 228.66 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 228.74 (relating to absorbed dose rate).

§ 228.67. Beam symmetry.

(a) In new equipment inherently capable of producing useful beams with asymmetry exceeding 5%, at least four different parts of the radiation beam shall be monitored before the beam passes through the beam limiting device.

(b) If the difference in dose rates between two of the different parts required in subsection (a) exceeds 10%, the irradiation shall be terminated.

Source

The provisions of this § 228.67 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.68. Selection and display of dose monitor units.

(a) Irradiation may not be possible until a selection of a number of dose monitor units has been made at the control panel.

(b) The preselected number of dose monitor units shall be displayed at the control panel until reset manually to zero before subsequent treatment can be initiated.

Source

The provisions of this § 228.68 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.69. Termination of irradiation by the dose monitoring system or systems.

(a) A dose monitoring system shall be capable of independently terminating irradiation.

(b) A primary system shall terminate irradiation when the preselected number of dose monitor units has been detected by the system.

(c) A secondary dose monitoring system shall terminate irradiation when either 110% of the preselected number of dose monitor units or 10 dose monitor units (whichever is greater) has been detected by the secondary dose monitoring system.

(d) For new equipment, an indicator on the control panel shall show which dose monitoring system has terminated irradiation.

Source

The provisions of this § 228.69 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.70. Interruption and termination switches.

The operator shall be able to interrupt or terminate irradiation and equipment movement at any time from the control panel. Following an interruption, the operator shall be able to resume irradiation without reselection of operating conditions.

Source

The provisions of this § 228.70 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

Cross References

This section cited in 25 Pa. Code § 228.73 (relating to selection of stationary beam therapy or moving beam therapy).

§ 228.71. Timer.

(a) The control panel shall have a timer that is graduated in minutes and fractions of minutes or seconds. The timer shall have a preset time selector and an elapsed time indicator.

(b) The timer shall be cumulative and activated only during irradiation and shall retain its reading after irradiation is interrupted or terminated.

(c) The timer shall terminate irradiation when a preselected time has elapsed if the dose monitoring systems fail to do so.

Source

The provisions of this § 228.71 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.72. Selection of radiation type.

Equipment capable of both X-ray therapy and electron therapy shall meet the following additional requirements:

(1) Irradiation may not be possible until a selection of radiation type and appropriate energy has been made and displayed at the control panel.

(2) An interlock system shall be provided to insure that the equipment can emit only the radiation type which has been selected.

(3) An interlock system shall be provided to prevent irradiation if selected operations carried out in the treatment room do not agree with the selected operations carried out at the control panel.

(4) An interlock system shall be provided to prevent:

(i) Irradiation with X-rays except to obtain a port film when electron applicators are fitted.

(ii) Irradiation with electrons when accessories specific for X-ray therapy are fitted.

(5) For new equipment, a system shall be provided to terminate irradiation if the energy of the electrons striking either the X-ray target or electron window deviates by more than +20% or 3 MeV, whichever is smaller, from the selected nominal energy.

Source

The provisions of this § 228.72 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.73. Selection of stationary beam therapy or moving beam therapy.

Equipment capable of both stationary beam therapy and moving beam therapy shall meet the following additional requirements:

(1) Irradiation may not be possible until a selection of stationary beam therapy or moving beam therapy has been made at the control panel.

(2) An interlock system shall be provided to insure that the equipment can operate only in the mode which has been selected.

(3) An interlock system shall be provided to prevent irradiation if any selected operations carried out in the treatment rooms do not agree with the selected operations carried out at the control panel.

(4) The mode of operation shall be displayed at the control panel.

(5) An interlock system shall be provided to terminate irradiation if one of the following occurs:

(i) Movement of the gantry during stationary beam therapy.

(ii) Movement of the gantry stops during moving beam therapy unless the stoppage is a preplanned function.

(6) An interlock system shall be provided to terminate irradiation if the number of dose monitor units delivered along an arc differs by more than 10% from the selected value. Termination of irradiation shall be as required by § 228.70 (relating to interruption and termination switches).

Source

The provisions of this § 228.73 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.74. Absorbed dose rate.

New equipment shall have a system that provides information from which the absorbed dose rate at a reference point in the treatment volume can be calculated. The radiation detectors specified in § 228.66 (relating to beam monitors) may form part of this system. The dose monitor unit rate shall be displayed at the control panel.

Source

The provisions of this § 228.74 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894.

§ 228.75. Calibrations.

(a) The calibration of systems subject to this subchapter shall be performed in accordance with an established calibration protocol. The calibration protocol published by the American Association of Physicists in Medicine is accepted as an established protocol. Other protocols which are equivalent will be accepted, but the user shall submit that protocol to the Department for concurrence that the protocol is equivalent. The calibration shall be performed as follows:

(1) Before the system is first used for irradiation of a patient and, at time intervals which do not exceed 1 year.

(2) After a change which alters the calibration, spatial distribution or other characteristics of the therapy beam.

(b) The calibration shall be performed by, or under the direct supervision of, a qualified expert for radiation therapy calibrations.

(c) Calibration radiation measurements required by subsection (a) shall be performed using a dosimetry system meeting the following specifications:

(1) The system has an exposure calibration factor appropriate to the beam energy measured and traceable to a National standard.

(2) The system has been calibrated within the previous 2 years and after servicing that may have affected its calibration.

(3) The system has been calibrated so that an uncertainty can be stated for the radiation quantities monitored by the system.

(4) The system has had constancy checks performed on the system as specified by a qualified expert for radiation therapy calibrations.

(d) Calibrations made under this section shall be made so that the dose at a reference point in soft tissue may be calculated as accurately as possible but with an uncertainty of no greater than 5%.

(e) The calibration of the therapy beam shall include, but is not limited to, the following determinations:

(1) Verification that the equipment is operating in compliance with the design specifications concerning the light localizer, the side light and backpointer alignment with the isocenter when applicable, variation in the axis of rotation for the table, gantry and beam limiting device (collimator) system.

(2) The absorbed dose rate at various depths (depth dose) and beam profile measured in water and the beam flatness and symmetry for the range of field sizes used, for each beam energy.

(3) The uniformity of the radiation field and a dependency upon the direction of the useful beam.

(4) Verification of depth-dose data and isodose curves applicable to the specific machine.

(5) Verification of the applicability of transmission factors of accessories such as wedges, shadow trays, compensators and their effects on electron buildup.

(6) The dose per monitor unit, end effect, linearity and dose rate dependence of the dose monitor systems.

(7) For photon beams, the congruence of the light field and the radiation field.

(8) For electron beams, the validity of commissioning data for virtual source distances or effective source-to-skin distances is to be verified at a single electron energy with a beam restriction device. When the replacement of a beam restriction device occurs, the determination will be required for each electron energy.

(f) Records of calibration measurements under subsection (a) and dosimetry system calibrations under subsection (c) shall be preserved for 5 years.

(g) A copy of the latest calibration performed under subsection (a) shall be available at the facility.

Source

The provisions of this § 228.75 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249369) to (249370).

Cross References

This section cited in 25 Pa. Code § 228.76 (relating to spot checks).

§ 228.76. Spot checks.

Spot checks shall be performed on systems subject to this subchapter during full calibrations and thereafter once in each calendar month. The spot checks shall meet the following requirements:

- (1) The procedures shall be in writing and developed by a qualified expert for radiation therapy calibrations.
- (2) If a qualified expert does not perform the spot check measurements, the results of the spot check measurements shall be reviewed by a qualified expert within 15 days of the completion of the spot check.
- (3) The measurements taken during spot checks shall demonstrate the degree of consistency of the operating characteristics which can affect the radiation output of the system or the radiation delivered to a patient during a therapy procedure.
- (4) The spot-check procedures shall specify the acceptable tolerance for each parameter measured in the spot check when compared to the value for that parameter determined in the full calibration.
- (5) If a spot check indicates a change in the operating characteristics of a system, as specified in the qualified expert's spot-check procedures, the system shall be recalibrated as required in § 228.75 (relating to calibrations).
- (6) Records of spot-check measurements performed under this section shall be maintained by the licensee for 5 years after completion of the spot-check measurements and necessary corrective actions.
- (7) Spot check measurements shall be performed using a dosimetry system that has been calibrated in accordance with § 228.75(c). Alternatively, a dosimetry system used solely for spot check measurements may be calibrated by direct intercomparison with a system that has been calibrated in accordance with § 228.75(c). This alternative calibration method shall have been performed within the previous year and after a servicing that may have affected the system calibration.

Source

The provisions of this § 228.76 adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249370) to (249371).

**APPENDIX A
DETERMINATION OF COMPETENCE**

The licensee shall ensure training on the subjects listed in Appendix A has been conducted. The individual shall be trained and competent in the general operation of the radiation therapy equipment and its functions, and in the following subject areas, as applicable to the procedures performed and the specific equipment utilized:

- (1) Basic properties of radiation.
- (2) Units of measurement.
- (3) Sources of radiation exposure.
- (4) Methods of radiation protection.
- (5) Biological effects of radiation exposure.
- (6) Medical accelerator operation.
- (7) Treatment planning and execution.
- (8) Patient positioning and protection.
- (9) Operating and emergency procedures.
- (10) Quality assurance.
- (11) Regulations.

Source

The provisions of this Appendix A adopted October 2, 1998, effective October 3, 1998, 28 Pa.B. 4894; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial pages (249371) to (249372).

Cross References

This appendix cited in 25 Pa. Code § 228.35 (relating to operating procedures).

[Next page is 229-1.]

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(304598) No. 358 Sep. 04

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CHAPTER 229. [Reserved].**Source**

The provisions of this Chapter 229 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4956), (119235) to (119236), (26466) to (26468), (4962) to (4968) and (119237).

Cross References

This chapter cited in 28 Pa. Code § 501.4 (relating to regulations); and 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 229.1. [Reserved].**Source**

The provisions of this § 229.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended February 27, 1976, effective March 15, 1976, 6 Pa.B. 391; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119235) to (119236) and (26466).

§ 229.2. [Reserved].**Source**

The provisions of this § 229.2 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26466).

§ 229.3. [Reserved].**Source**

The provisions of this § 229.3 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26466).

§ 229.4. [Reserved].**Source**

The provisions of this § 229.4 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26466).

§ 229.5. [Reserved].**Source**

The provisions of this § 229.5 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26466).

§ 229.6. [Reserved].**Source**

The provisions of this § 229.6 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; amended February 27, 1976, effective March 15, 1976, 6 Pa.B. 391; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26467).

§ 229.11. [Reserved].**Source**

The provisions of this § 229.11 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26467).

§ 229.12. [Reserved].**Source**

The provisions of this § 229.12 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (26467) to (26468).

§ 229.13. [Reserved].**Source**

The provisions of this § 229.13 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26468).

§ 229.14. [Reserved].**Source**

The provisions of this § 229.14 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26468).

§ 229.15. [Reserved].**Source**

The provisions of this § 229.15 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (26468).

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§ 229.16. [Reserved].**Source**

The provisions of this § 229.16 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4962).

§ 229.17. [Reserved].**Source**

The provisions of this § 229.17 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4962).

§ 229.21. [Reserved].**Source**

The provisions of this § 229.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4962).

§ 229.22. [Reserved].**Source**

The provisions of this § 229.22 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4963).

§ 229.23. [Reserved].**Source**

The provisions of this § 229.23 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4963).

§ 229.24. [Reserved].**Source**

The provisions of this § 229.24 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4964).

§ 229.25. [Reserved].**Source**

The provisions of this § 229.25 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4964).

§ 229.31. [Reserved].**Source**

The provisions of this § 229.31 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4964).

§ 229.32. [Reserved].**Source**

The provisions of this § 229.32 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4965).

§ 229.33. [Reserved].**Source**

The provisions of this § 229.33 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4965).

§ 229.34. [Reserved].**Source**

The provisions of this § 229.34 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4965).

§ 229.41. [Reserved].**Source**

The provisions of this § 229.41 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4965).

§ 229.42. [Reserved].**Source**

The provisions of this § 229.42 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4965) to (4966).

§ 229.43. [Reserved].**Source**

The provisions of this § 229.43 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4966).

§ 229.44. [Reserved].**Source**

The provisions of this § 229.44 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4966).

§ 229.45. [Reserved].**Source**

The provisions of this § 229.45 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4966).

§ 229.46. [Reserved].**Source**

The provisions of this § 229.46 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4966).

§ 229.51. [Reserved].**Source**

The provisions of this § 229.51 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4967).

§ 229.52. [Reserved].**Source**

The provisions of this § 229.52 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4967).

§ 229.53. [Reserved].**Source**

The provisions of this § 229.53 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4967).

§ 229.54. [Reserved].**Source**

The provisions of this § 229.54 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4968).

§ 229.55. [Reserved].**Source**

The provisions of this § 229.55 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4968).

§ 229.56. [Reserved].**Source**

The provisions of this § 229.56 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4968).

§ 229.57. [Reserved].**Source**

The provisions of this § 229.57 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4968).

§ 229.58. [Reserved].**Source**

The provisions of this § 229.58 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119237).

§ 229.59. [Reserved].**Source**

The provisions of this § 229.59 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119237).

[Next page is 230-1.]

**CHAPTER 230. PACKAGING AND TRANSPORTATION OF
RADIOACTIVE MATERIAL**

| Subch. | | Sec. |
|--------|---|--------|
| A. | SCOPE AND DEFINITIONS | 230.1 |
| B. | GENERAL | 230.11 |
| C. | [Reserved] | 230.21 |
| D. | OPERATING CONTROLS AND PROCEDURES | 230.41 |
| E. | [Reserved] | 230.51 |

Authority

The provisions of this Chapter 230 issued under the Radiation Protection Act (35 P. S. §§ 7110.101—7110.703); the Low-Level Radioactive Waste Disposal Act (35 P. S. §§ 7130.101—7130.905); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 230 adopted November 17, 1995, effective November 18, 1995, 25 Pa.B. 5206, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 217.1 (relating to purpose and scope); 25 Pa. Code § 217.144 (relating to incidental radioactive material produced by a particle accelerator); 25 Pa. Code § 224.1 (relating to purpose and scope); 25 Pa. Code § 225.1 (relating to purpose and scope); 25 Pa. Code § 226.1 (relating to purpose and scope); and 25 Pa. Code § 232.1 (relating to purpose and scope).

Subchapter A. SCOPE AND DEFINITIONS

| Sec. | |
|--------|--|
| 230.1. | Purpose and scope. |
| 230.2. | [Reserved]. |
| 230.3. | Incorporation by reference. |
| 230.4. | Effect of incorporation of 10 CFR Part 71. |
| 230.5. | Communications. |

§ 230.1. Purpose and scope.

This chapter establishes requirements for packaging, preparation for shipment and transportation of radioactive material. This chapter applies to a person who transports radioactive material or delivers radioactive material to a carrier for transport.

§ 230.2. [Reserved].**Source**

The provisions of this § 230.2 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204173) to (204176).

§ 230.3. Incorporation by reference.

(a) Except as provided in this chapter, the requirements of 10 CFR Part 71 (relating to packaging and transportation of radioactive material) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, 10 CFR 71.2, 71.6, 71.13(c) and (d), 71.24, 71.31, 71.33, 71.35, 71.37, 71.38, 71.39, 71.41, 71.43, 71.45, 71.51, 71.52, 71.53, 71.55, 71.59, 71.61, 71.63, 71.64, 71.65, 71.71, 71.73, 71.74, 71.75, 71.77, 71.99 and 71.100 are not incorporated by reference.

Source

The provisions of this § 230.3 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239; amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceding text appears at serial page (282446).

§ 230.4. Effect of incorporation of 10 CFR Part 71.

To reconcile differences between this chapter and the incorporated sections of 10 CFR Part 71 (relating to packaging and transportation of radioactive material), the following words and phrases shall be substituted for the language in 10 CFR Part 71 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or agreement state.
- (3) The definition of "sealed source" includes NARM.
- (4) The definition of "licensed material" includes NARM.
- (5) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

Source

The provisions of this § 230.4 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 230.5. Communications.

Notwithstanding the incorporation by reference of 10 CFR 71.1 (relating to communications and records), all communications concerning the requirements of this chapter should be sent to the address listed under § 215.41 (relating to address).

Source

The provisions of this § 230.5 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

Subchapter B. GENERAL**Sec.**

230.11 and 230.12. [Reserved].

230.13. Transportation of licensed material.

230.14. [Reserved].

§§ 230.11 and 230.12. [Reserved].**Source**

The provisions of these §§ 230.11 and 230.12 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (245185).

§ 230.13. Transportation of licensed material.

In addition to the incorporation by reference of 10 CFR Part 71 (relating to packaging and transportation of radioactive material), if 67 Pa. Code Chapters 229, 231 and 403 (relating to interstate motor carrier safety requirements; intrastate motor carrier requirements; and hazardous materials transportation) or the regulations of the United States Department of Transportation in 49 CFR Parts 171—180 and 388—397 do not apply to a shipment of licensed material, the licensee shall conform to the standards and requirements of those regulations to the same extent as if the shipment was subject to the regulations.

Source

The provisions of this § 230.13 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

§ 230.14. [Reserved].**Source**

The provisions of this § 230.14 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial page (243186).

Subchapter C. [Reserved]**§§ 230.21—230.26. [Reserved].****Source**

The provisions of these §§ 230.21—230.26 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204179) to (204183).

Subchapter D. OPERATING CONTROLS AND PROCEDURES

Sec.

230.41—230.46. [Reserved].

230.47. Advance notification of transport of nuclear waste.

§§ 230.41—230.46. [Reserved].**Source**

The provisions of these §§ 230.41—230.46 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204184) to (204188).

§ 230.47. Advance notification of transport of nuclear waste.

In addition to the incorporation by reference of 10 CFR Part 71 (relating to packaging and transportation of radioactive materials), the licensee is responsible for the following:

(1) Prior to the transport of nuclear waste specified in 10 CFR 71.97(b) (relating to advance notification of shipment of irradiated reactor fuel and nuclear waste) outside the licensee's facility or other place of use or storage, or prior to delivery to a carrier for transport, each licensee shall provide advance notification of the transport to the Governor, or the Governor's designee, of each state through which the waste will be transported, and to the Department.

(2) The notification required by paragraph (1) shall be made in writing to the office of each appropriate governor, or governor's designee, and to the Department. A notification delivered by mail shall be postmarked at least 7 days before the beginning of the 7-day period during which departure of the shipment is estimated to occur. A notification delivered by messenger shall reach the office of the governor, or governor's designee, and the Department, at least 4 days before the beginning of the 7-day period during which the departure of the shipment is estimated to occur. A copy of the notification shall be retained by the licensee for 3 years.

(3) The licensee shall notify each appropriate governor, or governor's designee, and the Department of changes to schedule information provided under paragraph (1). The notification shall be by telephone to a responsible individual in the office of each appropriate governor, or governor's designee, and the Department. The licensee shall maintain for 3 years a record of the individual contacted.

(4) Each licensee who cancels a nuclear waste shipment, for which advance notification has been sent, shall send a cancellation notice to each appropriate governor, or governor's designee, and to the Department. A copy of the notice shall be retained by the licensee for 3 years.

(5) A list of the mailing addresses of the governors and governors' designees is available upon request from the Director, Office of State Programs, United States Nuclear Regulatory Commission, Washington, DC 20555.

Source

The provisions of this § 230.47 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239.

Subchapter E. [Reserved]

§ 230.51. [Reserved].

Source

The provisions of this § 230.51 reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204189) to (204190).

APPENDIX A. [Reserved]

Source

The provisions of this Appendix A reserved September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Immediately preceding text appears at serial pages (204191) to (204202).

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CHAPTER 231. [Reserved]**Source**

The provisions of this Chapter 231 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119239) to (119243).

Cross References

This chapter cited in 28 Pa. Code § 501.4 (relating to regulations); and 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 231.1. [Reserved].**Source**

The provisions of this § 231.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119239).

§ 231.2. [Reserved].**Source**

The provisions of this § 231.2 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119240).

§ 231.11. [Reserved].**Source**

The provisions of this § 231.11 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119240).

§ 231.12. [Reserved].**Source**

The provisions of this § 231.12 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119240).

§ 231.13. [Reserved].**Source**

The provisions of this § 231.13 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119240).

§ 231.21. [Reserved].**Source**

The provisions of this § 231.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119240).

§ 231.22. [Reserved].**Source**

The provisions of this § 231.22 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119241).

§ 231.31. [Reserved].**Source**

The provisions of this § 231.31 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119241).

§ 231.32. [Reserved].**Source**

The provisions of this § 231.32 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119241) to (119242).

§ 231.33. [Reserved].**Source**

The provisions of this § 231.33 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119243).

§ 231.34. [Reserved].**Source**

The provisions of this § 231.34 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119243).

[Next page is 232-1.]

**CHAPTER 232. LICENSES AND RADIATION SAFETY
REQUIREMENTS FOR IRRADIATORS**

| | |
|--------|--|
| Sec. | |
| 232.1. | Purpose and scope. |
| 232.2. | Incorporation by reference. |
| 232.3. | Effect of incorporation of 10 CFR Part 36. |

Authority

The provisions of this Chapter 232 issued under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 232 adopted September 14, 2001, effective September 15, 2001, 31 Pa.B. 5239. Unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualification); and 25 Pa. Code § 217.1 (relating to purpose and scope).

§ 232.1. Purpose and scope.

(a) This chapter contains the requirements for the issuance of a license authorizing the use of radioactive materials in sealed sources to irradiate objects or materials with gamma radiation.

(b) The requirements of this chapter are in addition to, and not in substitution for, other applicable requirements in this article, in particular, the requirements and provisions of Chapters 215, 217—220 and 230.

§ 232.2. Incorporation by reference.

(a) Except as provided in this chapter, the requirements of 10 CFR Part 36 (relating to licenses and radiation safety requirements for irradiators) are incorporated by reference.

(b) Notwithstanding the requirements incorporated by reference, §§ 36.5, 36.8, 36.91 and 36.93 are not incorporated by reference.

§ 232.3. Effect of incorporation of 10 CFR Part 36.

To reconcile differences between this chapter and the incorporated sections of 10 CFR Part 36 (relating to licenses and radiation safety requirements for irradiators), the following words and phrases shall be substituted for the language in 10 CFR Part 36 as follows:

- (1) A reference to "NRC" or "Commission" means Department.
- (2) A reference to "NRC or agreement state" means Department, NRC or Agreement State.
- (3) The definition of "sealed source" includes NARM.

(4) Notifications, reports and correspondence referenced in the incorporated parts of 10 CFR shall be directed to the Department and, for NRC licenses, to the NRC until agreement state status is in effect.

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(282454) No. 324 Nov. 01

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CHAPTER 233. [Reserved]**Source**

The provisions of this Chapter 233 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119245) to (119247), (4977) to (4982) and (119249) to (119250).

Cross References

This chapter cited in 28 Pa. Code § 501.4 (relating to regulations); and 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 233.1. [Reserved].**Source**

The provisions of this § 233.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119246) to (119247).

§ 233.2. [Reserved].**Source**

The provisions of this § 233.2 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119247).

§ 233.11. [Reserved].**Source**

The provisions of this § 233.11 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119247) and (4977).

§ 233.12. [Reserved].**Source**

The provisions of this § 233.12 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4977).

§ 233.13. [Reserved].**Source**

The provisions of this § 233.13 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4977).

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(252845) No. 293 Apr. 99

§ 233.14. [Reserved].**Source**

The provisions of this § 233.14 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4978).

§ 233.15. [Reserved].**Source**

The provisions of this § 233.15 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4978) to (4979).

§ 233.21. [Reserved].**Source**

The provisions of this § 233.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4979).

§ 233.22. [Reserved].**Source**

The provisions of this § 233.22 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4979).

§ 233.23. [Reserved].**Source**

The provisions of this § 233.23 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4979) to (4980).

§ 233.31. [Reserved].**Source**

The provisions of this § 233.31 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (4980).

§ 233.32. [Reserved].**Source**

The provisions of this § 233.32 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4980) to (4981).

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§ 233.41. [Reserved].**Source**

The provisions of this § 233.41 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4981) to (4982).

§ 233.42. [Reserved].**Source**

The provisions of this § 233.42 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (4982) and (119249).

§ 233.43. [Reserved].**Source**

The provisions of this § 233.43 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119249).

§ 233.51. [Reserved].**Source**

The provisions of this § 233.51 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119249).

§ 233.52. [Reserved].**Source**

The provisions of this § 233.52 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119250).

§ 233.53. [Reserved].**Source**

The provisions of this § 233.53 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119250).

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(252848) No. 293 Apr. 99

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CHAPTER 235. [Reserved]**Source**

The provisions of this Chapter 235 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119251) to (119256).

Cross References

This chapter cited in 28 Pa. Code § 501.4 (relating to regulations).

§ 235.1. [Reserved].**Source**

The provisions of this § 235.1 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119251).

Cross References

This section cited in 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 235.11. [Reserved].**Source**

The provisions of this § 235.11 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119251) to (119252).

Cross References

This section cited in 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 235.12. [Reserved].**Source**

The provisions of this § 235.12 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119252).

Cross References

This section cited in 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 235.13. [Reserved].**Source**

The provisions of this § 235.13 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119252).

Cross References

This section cited in 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 235.14. [Reserved].**Source**

The provisions of this § 235.14 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119253).

Cross References

This section cited in 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 235.15. [Reserved].**Source**

The provisions of this § 235.15 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119253).

Cross References

This section cited in 28 Pa. Code § 565.12 (relating to radiology service policy).

§ 235.21. [Reserved].**Source**

The provisions of this § 235.21 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119253).

§ 235.22. [Reserved].**Source**

The provisions of this § 235.22 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119253) to (119254).

§ 235.23. [Reserved].**Source**

The provisions of this § 235.23 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119254).

§ 235.24. [Reserved].

Source

The provisions of this § 235.24 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119254).

§ 235.31. [Reserved].

Source

The provisions of this § 235.31 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119255).

§ 235.32. [Reserved].

Source

The provisions of this § 235.32 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial page (119255).

§ 235.33. [Reserved].

Source

The provisions of this § 235.33 adopted February 1, 1972, effective February 2, 1972, 2 Pa.B. 212; reserved December 18, 1987, effective December 19, 1987, 17 Pa.B. 5235. Immediately preceding text appears at serial pages (119255) to (119256).

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(246216) No. 286 Sep. 98

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CHAPTER 236. LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL

| Subchap. | Sec. |
|---|---------|
| A. GENERAL PROVISIONS | 236.1 |
| B. REQUIREMENTS FOR SITING THE REGIONAL DISPOSAL FACILITY | 236.101 |
| C. REGIONAL FACILITY LICENSE | 236.201 |
| D. DESIGN REQUIREMENTS FOR THE REGIONAL DISPOSAL FACILITY | 236.301 |
| E. REQUIREMENTS FOR THE CONSTRUCTION, OPERATION AND CLOSURE OF THE REGIONAL DISPOSAL FACILITY | 236.401 |
| F. WASTE CLASSIFICATION, WASTE CHARACTERISTICS, LABELING AND MANIFESTS | 236.501 |
| G. FINANCIAL ASSURANCES AND LIABILITY | 236.601 |
| H. INSPECTIONS, TESTS AND RECORDS | 236.701 |

Authority

The provisions of this Chapter 236 issued under section 302 of the Radiation Protection Act (35 P. S. § 7110.302); section 5 of The Clean Streams Law (35 P. S. § 691.5); section 302 of the Low-Level Radioactive Waste Disposal Act (35 P. S. § 7130.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 236 adopted October 27, 1989, effective October 28, 1989, 19 Pa.B. 4665, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications); 25 Pa. Code § 217.1 (relating to purpose and scope); and 25 Pa. Code § 287.2 (relating to scope).

Subchapter A. GENERAL PROVISIONS

GENERAL

| | |
|--------|--------------------|
| Sec. | |
| 236.1. | Purpose and scope. |
| 236.2. | Definitions. |

DISPOSAL SITE PERFORMANCE OBJECTIVES

| | |
|---------|--|
| 236.11. | Scope. |
| 236.12. | General requirement. |
| 236.13. | Protection of the general population and environment from releases of radioactivity. |

- 236.14. Protection of individuals from inadvertent intrusion.
- 236.15. Protection of individuals during operations.
- 236.16. Stability of the disposal site.

Cross References

This subchapter cited in 25 Pa. Code § 236.108 (relating to site justification); 25 Pa. Code § 236.141 (relating to general requirements); 25 Pa. Code § 236.143 (relating to demography and land use); 25 Pa. Code § 236.145 (relating to meteorology and climatology); 25 Pa. Code § 236.146 (relating to seismology); 25 Pa. Code § 236.147 (relating to surface geology and hydrology); 25 Pa. Code § 236.148 (relating to subsurface geology and hydrology); 25 Pa. Code § 236.149 (relating to natural resources); 25 Pa. Code § 236.208 (relating to specific technical information); 25 Pa. Code § 236.209 (relating to technical analyses); 25 Pa. Code § 236.245 (relating to content of license application for closure); 25 Pa. Code § 236.246 (relating to application and transfer of license to the Commonwealth); 25 Pa. Code § 236.301 (relating to scope and purpose); 25 Pa. Code § 236.311 (relating to general requirements); 25 Pa. Code § 236.312 (relating to compatibility with site); 25 Pa. Code § 236.315 (relating to recoverability); 25 Pa. Code § 236.326 (relating to remedial measures); 25 Pa. Code § 236.330 (relating to performance assessment); 25 Pa. Code § 236.403 (relating to facility operation plan); and 25 Pa. Code § 236.409 (relating to monitoring plan).

GENERAL

§ 236.1. Purpose and scope.

(a) This chapter establishes procedures, criteria and terms and conditions upon which the Department issues a license for the disposal of low-level radioactive wastes received from other persons. The requirements of this chapter are in addition to other applicable requirements of this article.

(b) This chapter establishes performance objectives, and technical and procedural requirements which are applicable to any method of disposal except shallow land burial, as defined in § 236.2 (relating to definitions).

(c) This chapter does not apply to disposal of byproduct material, as defined in section 11(e)(2) of the Atomic Energy Act of 1954 (42 U.S.C.A. § 2014(e)(2)) in quantities greater than 10,000 kilograms containing more than 5 millicuries of radium-226.

§ 236.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Account—The Long Term Care Account.

Act—The Low-Level Radioactive Waste Disposal Act (35 P. S. §§ 7130.101—7130.905).

Active fault—A fault along which there is recurrent movement that is demonstrated by measurable periodic displacements or seismic activity.

Active institutional control period—See the definition of time periods.

Active maintenance—Significant activity needed during the long term care period to maintain reasonable assurance that the performance objectives in this subchapter are met. The term includes major remedial actions such as replacement of disposal unit covers. The term does not include custodial activities, such as repair of fencing, repair or replacement of monitoring equipment, revegetation, minor repair of disposal unit covers and general disposal site upkeep such as mowing grass.

Affected municipality—A unit of local government other than the host municipality designated as an affected municipality under section 318 of the act (35 P. S. § 7130.318). The term may include a county, city, borough, township or school district.

Broker—An intermediate person who collects, consolidates, handles, treats, processes, stores, packages, ships or otherwise has responsibility for or possesses low-level radioactive waste.

Buffer zone—A portion of the disposal site that is controlled by the licensee and that lies under the disposal units and between the disposal units and the boundary of the site.

Capable fault—A fault which exhibited movement at or near the ground surface within the past 35,000 years.

Carrier—A person who transports low-level radioactive waste from or to a generator or waste management facility or to the regional disposal facility.

Chelating agent—An organic chemical that bonds with a central metal atom or ion at two or more points such as amine polycarboxylic acids, hydroxycarboxylic acids, gluconic acids and polycarboxylic acids.

Commencement of construction—Clearing of land, excavation or other substantial action that would adversely affect the environment of the disposal facility. The term does not include disposal site exploration, necessary roads for disposal site exploration, borings to determine foundation conditions or other preconstruction monitoring or testing to establish background information related to the suitability of the disposal site or the protection of environmental values.

Commission—The Appalachian States Low-Level Radioactive Waste Commission.

Compact—The Compact entered into by the Commonwealth under the terms of the Low-Level Radioactive Waste Policy Act of 1980 (42 U.S.C.A. §§ 2021b—2021j) and as contained in the act of December 22, 1985 (P. L. 539, No. 120), known as the Appalachian State Low-Level Radioactive Waste Compact Law (35 P. S. §§ 7125.1—7125.4).

Compact states—The combined states, including the Commonwealth, which have entered into the Compact.

Container—The first enclosure which encompasses the radioactive waste.

Containment—The function of isolating radioactive waste from the biosphere by emplacement of the waste within a container, waste module or disposal unit.

Custodial agency—An agency of the government designated by the Governor to act on behalf of the government owner of the disposal site. The agency is responsible for the long term monitoring and care of the disposal site. The term does not include the Department.

Disposal—The isolation of low-level radioactive wastes from the biosphere.

Disposal facility—The buildings, equipment and other engineered features, including disposal units and temporary holding facilities, within the disposal site which are used for the disposal of low-level radioactive waste.

Disposal site—The property, including improvements thereon, which is used for disposal of low-level radioactive waste. The term consists of the disposal units and the buffer zone.

Disposal Unit—A discrete portion of the disposal site into which waste is placed for disposal.

Disqualifying criteria—Conditions which would eliminate an area from further consideration for disposal.

Engineered barrier—A manmade structure or device that is intended to improve the disposal facility's ability to meet the performance objectives in this chapter.

Engineered cover—A manmade structure constructed over the disposal facility.

Engineered structure—A manmade state-of-the-art barrier designed to:

- (i) Provide additional measures for containment of radioactive waste from the environment.
- (ii) Provide protection for an inadvertent intruder.
- (iii) Provide stability of the disposal facility.
- (iv) Prevent radioactive release.

Enhanced containment—Additional isolation of the radioactive waste from the environment as provided by engineered structures.

Explosive material—A chemical compound, mixture or device which produces a substantial instantaneous release of gas and heat spontaneously or by contact with sparks or flame.

Fund—The Low-Level Waste Fund.

Generate—To produce low-level radioactive waste requiring disposal.

Generator—A person whose activity results in the production of low-level radioactive waste requiring disposal.

Groundwater—The part of the subsurface water that is in the zone of saturation, perennial or otherwise.

Hazardous life—The time required for radioactive materials to decay to safe levels of radioactivity, as defined by the time period for the concentration of radioactive materials within a given container or package to decay to maximum

permissible concentrations as defined by Federal law or by standards to be set by the host state, whichever is more restrictive.

Hazardous wastes—Wastes as defined in section 103 of the Solid Waste Management Act (35 P. S. § 6018.103) and regulations thereunder.

Host municipality—A city, borough, incorporated town or township, excluding a county, in which the low-level waste disposal facility will be constructed, as designated by the Department under section 318 of the act (35 P. S. § 7130.318).

Inadvertent intruder—A person who might occupy the disposal site after closure and engage in normal activities, such as agriculture, dwelling construction or other pursuits in which an individual might be unknowingly exposed to radiation from the waste.

Intruder barrier—A manmade structure or sufficient depth of cover over the waste that inhibits contact with waste and helps to ensure that radiation exposures to an inadvertent intruder will meet the requirements under § 236.320 (relating to protection from inadvertent intruders) and the performance objectives in this subchapter.

Isolation—Protection of the public and the environment from inadvertent intrusion or direct release of radioactive material from the disposal site.

Leak resistance—The material properties of the disposal facility design which retard or prevent migration of water.

Long term care period—See the definition of time periods.

Low-level radioactive waste—Radioactive waste that meets one of the following criteria:

(i) Is not high-level radioactive waste, spent nuclear fuel or by-product material as defined in section 11(e)(2) of the Atomic Energy Act of 1954 (42 U.S.C.A. § 2014(e)(2)), waste generated as a result of atomic energy defense activities of the Federal government and waste for which the Federal government is responsible under section 3(b)(1) of the Low-Level Radioactive Waste Policy Amendments Act of 1985 (42 U.S.C.A. § 2021c(b)(1)).

(ii) Is classified by the Federal government as low-level waste, consistent with the Low-Level Radioactive Waste Policy Amendments Act of 1985 or waste that contains naturally occurring or accelerator produced radioactive material which is not excluded by subparagraph (i).

Management—The reduction, collection, consolidation, storage, processing, incineration, separation, minimization, compaction, segregation, solidification, evaporation, packaging or treatment of low-level radioactive waste.

Mixed waste—Waste that is low-level radioactive waste, as defined in this subchapter, and either contains a hazardous waste or exhibits a hazardous characteristic as contained in the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003).

Monitoring—Observing and making measurements to provide data to evaluate the performance and characteristics of the disposal site.

Municipality—A county, city, borough, home rule or incorporated town or township as defined in 1 Pa.C.S. § 1991 (relating to definitions).

Passive institutional control period—See the definition of time periods.

Person—Includes the following:

- (i) The definition contained in § 215.2 (relating to definitions).
- (ii) An individual, corporation, partnership, association, public or private institution, cooperative enterprise, municipal authority, public utility, trust, estate, group, Federal government or agency, other than the United States Nuclear Regulatory Commission or a successor thereto, State institution and agency or other legal entity which is recognized by law as the subject of rights and duties. The term includes officers and directors of a corporation or other legal entity having officers and directors.

Postclosure observation and maintenance period—See the definition of time periods.

Potentially suitable site—An area containing approximately 500 acres, for the disposal site, that meets the screening requirements in Subchapter B (relating to requirements for siting the regional disposal facility) and would reasonably be expected to meet the performance objectives in this subchapter and site suitability requirements in Subchapter B.

Protection fund—The Regional Facility Protection Fund.

Public water system—A water system which provides water to the public for human consumption and which has at least 15 service connections or regularly services an average of at least 25 individuals daily, at least 60 days out of the year.

Pyrophoric material—Material that ignites spontaneously. The term includes any liquid that ignites spontaneously in dry or moist air at or below 130° F (54.5°C), or a solid, other than one classed as an explosive, which under normal conditions is liable to cause fires through friction, retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious transportation, handling or disposal hazard. The term also includes spontaneously combustible and water reactive materials.

Shallow land burial—The disposal of low-level radioactive waste directly in subsurface trenches without additional confinement in engineered structures and in proper packaging as determined in the act.

Site closure and stabilization—Actions that are taken upon completion of operations that prepare the disposal site for custodial care and that assure that the disposal site will remain stable and will not need ongoing active maintenance.

Stability—Structural stability.

Surveillance—Monitoring and observation of the disposal site for purposes of visual detection of need for maintenance, custodial care, evidence of intrusion and compliance with other license, permit and regulatory requirements.

Time periods—Specific periods of time associated with the life of the disposal facility. The term includes the following time periods presented in chronological order:

(i) *Postclosure observation and maintenance period*—The period of time following site closure during which the site operator is preparing the site for transfer to the custodial agency.

(ii) *Long term care period*—The period of time which includes both the active and passive institutional control periods.

(iii) *Active institutional control period*—The period of time following site closure and the postclosure observation and maintenance period during which active access control, surveillance, monitoring and custodial care is maintained. This period will last for a minimum of 100 years.

(iv) *Passive institutional control period*—The period of time after the active institutional control period during which monitoring and passive access control of the facility is maintained. This period will be at least as long as the hazardous life of the radioactive waste.

Waste—Low-level radioactive waste.

Waste module—A discrete assembly of waste containers within a disposal unit.

Cross References

This section cited in 25 Pa. Code § 236.1 (relating to purpose and scope); 25 Pa. Code § 236.311 (relating to general requirements); and 25 Pa. Code § 237.2 (relating to definitions).

DISPOSAL SITE PERFORMANCE OBJECTIVES

§ 236.11. Scope.

The disposal site performance objectives establish the minimum overall level of safety that the disposal facility is required to meet. Operation within these levels will provide protection of public health, safety and the environment.

§ 236.12. General requirement.

The disposal facility shall be sited, designed, operated, closed and controlled after closure so that reasonable assurance exists that exposures to individuals are within the requirements established in the performance objectives in §§ 236.13—236.16.

§ 236.13. Protection of the general population and environment from releases of radioactivity.

Concentrations of radioactive material which may be released to the general environment in groundwater, surface water, air, soil, plants or animals may not result in an annual dose exceeding an equivalent of 25 millirems to the whole body, 75 millirems to the thyroid and 25 millirems to any other organ of any

member of the public. Releases of radioactivity in effluents to the general environment shall be as low as reasonably achievable and within the most restrictive Federal and Commonwealth regulations and standards which are applicable.

Cross References

This section cited in 25 Pa. Code § 236.12 (relating to general requirement); 25 Pa. Code § 236.15 (relating to protection of individuals during operations); 25 Pa. Code § 236.225 (relating to requirements for issuance of a license); 25 Pa. Code § 236.314 (relating to enhanced containment); and 25 Pa. Code § 236.603 (relating to assurance for onsite cleanup during operation).

§ 236.14. Protection of individuals from inadvertent intrusion.

Design, operation and closure of the disposal facility shall ensure protection of an individual from inadvertently intruding into the disposal site and occupying the site or contacting the waste after active institutional controls over the disposal site have been removed.

Cross References

This section cited in 25 Pa. Code § 236.12 (relating to general requirement); and 25 Pa. Code § 236.225 (relating to requirements for issuance of a license).

§ 236.15. Protection of individuals during operations.

Operations at the disposal facility shall be conducted in compliance with the standards for radiation protection in Chapter 219 (relating to standards for protection against radiation), except for releases of radioactivity in effluents from the disposal facility, which shall be governed by § 236.13 (relating to protection of the general population and environment from releases of radioactivity). Effort shall be made to maintain radiation exposures as low as is reasonably achievable.

Cross References

This section cited in 25 Pa. Code § 236.12 (relating to general requirement); and 25 Pa. Code § 236.603 (relating to assurance for onsite cleanup during operation).

§ 236.16. Stability of the disposal site.

The disposal facility shall be sited, designed, used, operated and closed to achieve long term stability of the disposal site and to eliminate to the extent practicable the need for ongoing active maintenance of the disposal site following closure so that only surveillance, monitoring or minor custodial care are required.

Cross References

This section cited in 25 Pa. Code § 236.12 (relating to general requirement); and 25 Pa. Code § 236.314 (relating to enhanced containment).

**Subchapter B. REQUIREMENTS FOR SITING THE
REGIONAL DISPOSAL FACILITY**

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Cross References

This subchapter cited in 25 Pa. Code § 236.2 (relating to definitions); 25 Pa. Code § 236.225 (relating to requirements for issuance of a license); 25 Pa. Code § 236.301 (relating to scope and purpose); and 25 Pa. Code § 236.312 (relating to compatibility with site).

GENERAL**§ 236.101. Scope and applicability.**

This subchapter contains the requirements for siting a low-level radioactive waste disposal facility in this Commonwealth. The low-level radioactive waste disposal facility shall satisfy other requirements of this chapter. The criteria for siting a low-level radioactive waste disposal facility are divided into two phases, §§ 236.121—236.128 (relating to Phase I screening requirements) and §§ 236.141—236.149 (relating to Phase II site suitability requirements). The proposed site for licensing shall meet the Phase I and Phase II requirements.

§ 236.102. Summary and purpose.

(a) The site selection process for the low-level radioactive waste disposal facility addresses a wide range of public health, safety, environmental, social and economic factors. Considerations such as public health and safety, flooding, tectonics, protection of lands in the public trust, protection and exploitation of natural resources, demographics, transportation, wildlife, air quality, ecology, topography and hydrogeology are addressed in the siting requirements. The primary goal of the siting process is to identify a site that is capable of protecting public health, safety and the environment and to identify a site that is licensable.

(b) Application of the site selection process eliminates land in this Commonwealth that is unsuitable for use as a disposal site. From the remaining land, a site is to be selected by the applicant which will be submitted in the license application for the construction of the low-level radioactive waste disposal facility. At the initiation of the site selection process, all of the land in this Commonwealth is considered suitable for siting the facility. Through application of Phase I screening requirements, the applicant shall evaluate multiple areas and determine whether the areas are qualified or unqualified until the applicant has identified and submitted three sites, of approximately 500 acres each, to the EQB as the preferred potentially suitable sites. Through application of Phase I and Phase II site suitability requirements, the preferred potentially suitable sites will be studied in detail—characterized—and compared to identify the proposed site to be submitted for licensing.

§ 236.103. Siting plan.

(a) The applicant shall submit a siting plan to the Department for approval. The siting plan shall meet the requirements of this subchapter and the act and follow the siting process discussed in the applicant's proposal. A quality assurance/quality control plan, which will be implemented throughout site screening and characterization, shall be submitted as part of the siting plan. Siting activities cannot begin until approval of the siting plan has been granted by the Department.

(b) The Department will utilize its oversight role to ensure that the applicant is implementing the approved siting plan throughout the site screening and site characterization period.

Cross References

This section cited in 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.206 (relating to program plans).

§ 236.104. Siting process.

(a) The applicant shall screen this Commonwealth for potentially suitable sites using the criteria in §§ 236.121—236.128 (relating to Phase I screening requirements). Screening shall be conducted consistent with the applicant's siting plan under § 236.103 (relating to siting plan), proposal and contract with the Department made under section 306 of the act (35 P. S. § 7130.306). The applicant shall propose three preferred potentially suitable sites and submit those sites to the EQB for approval.

(b) The EQB will hold at least one public information meeting and one public hearing in each proposed potentially suitable area, evaluate the three proposed potentially suitable sites and determine compliance with §§ 236.121—236.128. As part of this determination, the EQB will make a determination that the screening process has identified three of the best potential locations in this Commonwealth, based on the administrative record before the EQB. The administrative record shall consist of the screening report, site justification report, the study of short and long term environmental effects on the potentially suitable sites, the conclusions and siting recommendations of the Department, the testimony presented at the EQB's public hearings and comments received during the comment period.

(c) Upon preliminary approval of the three preferred potentially suitable sites by the EQB, the applicant shall obtain access to the sites and conduct detailed characterization studies under §§ 236.141—236.149 (relating to Phase II site suitability requirements). The studies shall be conducted consistent with the applicant's site characterization plan, proposal and contract with the Department made under section 306 of the act. After concluding the characterization studies, the applicant shall select the site to be considered for licensing.

(d) Detailed site characterization at a site may be discontinued by the applicant if conditions are encountered that would prevent that site from meeting the Phase I site screening evaluation requirements or the Phase II site suitability requirements. If no disqualifying conditions are encountered, the applicant shall continue detailed site characterization.

(e) If disqualifying conditions are encountered at the three sites, the applicant shall submit three other potentially suitable sites under this section prior to reinitiation of Phase II.

Cross References

This section cited in 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.105. Preferred potentially suitable site selection procedure.

(a) The applicant shall propose three preferred potentially suitable sites for preliminary approval for further study and submit those sites to the EQB and the Department.

(b) The proposal shall be accompanied by the following:

- (1) A site screening report under § 236.107 (relating to screening report).
- (2) A site justification under § 236.108 (relating to site justification).
- (3) An environmental impact report under § 236.109 (relating to environmental impact report).

(c) At the same time that the proposal is submitted, the applicant shall submit to the Department a social and economic impact study for each site. Each study shall propose a host municipality and affected municipalities.

(d) The Department will evaluate the proposal and submit its recommendations to the EQB.

(e) The EQB will evaluate the three potentially suitable sites in accordance with section 307(e) of the act (35 P. S. § 7130.307(e)).

§ 236.106. Selection procedure for the proposed site.

(a) Prior to initiating detailed site characterization studies, the applicant shall prepare and submit for the Department's approval a detailed plan for characterizing the three preferred potentially suitable sites.

(b) The site characterization plan shall include:

- (1) Detailed plans and procedures, including quality assurance/quality control, for collecting detailed site specific information for compliance with the Phase I and Phase II siting requirements.
- (2) The method for determining the proposed site for licensing.

(c) Upon approval of the three preferred potentially suitable sites by the EQB and Department approval of the site characterization plan, the applicant shall obtain access to the sites and commence detailed characterization studies.

(d) Information collected shall be compiled and included as part of the content of the license application as specified in § 236.204 (relating to content of a license application).

§ 236.107. Screening report.

(a) The applicant shall submit a site screening report to the EQB as part of its proposal for approval of three preferred potentially suitable sites. The report shall include the following:

- (1) A comprehensive presentation of the information collected.
- (2) The analyses conducted.

- (3) The evaluation process that was used in screening this Commonwealth to identify the preferred potentially suitable sites.
- (b) The screening report shall identify the stages incorporated in the process to narrow the search from the entire Commonwealth to the level at which the three preferred potentially suitable sites are identified.
- (c) The screening report shall include a description of how the Phase I screening requirements were utilized in the process and a description of how meaningful public input was solicited and incorporated in each stage of the process.
- (d) The screening report shall include a detailed discussion of how requests for consideration as a potentially suitable site from interested municipalities were considered.
- (e) The screening report shall include documentation and references to substantiate the validity of the information presented and the conclusions reached through every stage of analysis. The report shall describe the research and analytical techniques and identify the principal persons responsible for conducting the research and preparing the report. Presentations of information shall be clear, concise and complete to the level that allows for independent evaluation by the EQB.

Cross References

This section cited in 25 Pa. Code § 236.105 (relating to preferred potentially suitable site selection procedure).

§ 236.108. Site justification.

- (a) The applicant shall submit site justifications which explain the reasons for the choice of each preferred potentially suitable site.
- (b) The applicant shall use the process established in the proposal and the siting plan as approved by the Department, for applying the requirements of §§ 236.121—236.128 (relating to Phase I screening requirements) and show how the process was used to identify each preferred potentially suitable site.
- (c) Site justifications shall predict the ability of each preferred site to meet the Phase II site suitability requirements and the performance objectives in Subchapter A (relating to general provisions).
- (d) Site justifications shall utilize comparisons of information collected and analyzed during the screening process to defend and justify the choice of a preferred potentially suitable site.

Cross References

This section cited in 25 Pa. Code § 236.105 (relating to preferred potentially suitable site selection procedure).

§ 236.109. Environmental impact report.

An environmental impact report shall be prepared for each of the preferred potentially suitable sites and affected areas. The report shall consider the short and long term effects that a disposal facility would have on public health and safety and the environment at each preferred potentially suitable site and affected areas.

Cross References

This section cited in 25 Pa. Code § 236.105 (relating to preferred potentially suitable site selection procedure).

§ 236.110. Social and economic impact study.

(a) A social and economic impact study shall be prepared for each of the preferred potentially suitable sites. The study shall include information, analyses and discussion to clearly identify social and economic impacts. The level of information that is submitted shall be sufficient to permit the Department to conduct an independent evaluation.

(b) Each social and economic impact study shall:

(1) Propose to the Department a host municipality and affected municipalities.

(2) Evaluate the long and short term potential impacts of the facility on social and economic conditions including the following:

(i) Tax revenue.

(ii) Public and private infrastructure compatibility with regional and local economic goals.

(iii) Emergency management capabilities.

(iv) Loss of resources.

(v) Social service demands.

(c) The Department will use the social and economic impact reports in its consideration for identifying host and affected municipalities.

(d) The Department will identify the host and affected municipalities and incorporate them into the disposal facility license.

§ 236.111. Distances.

The distances from a facility to a feature or structure described in this chapter shall be measured from the boundary of the disposal site.

PHASE I SCREENING REQUIREMENTS**§ 236.121. General requirements.**

(a) This section and §§ 236.122—236.128 contain both disqualifying criteria and evaluation requirements.

(b) *Disqualifying criteria* denote conditions that are unacceptable for the siting of a low-level radioactive waste disposal facility. Implementation of disqualifying criteria requires that areas be evaluated to determine the existence of disqualifying conditions. Siting a low-level radioactive waste disposal facility in an area containing disqualifying conditions is prohibited. The EQB will deny a proposed site without further review if the proposed site contains disqualifying conditions. The applicant bears the burden of proving that the site contains no disqualifying conditions.

(c) *Evaluation requirements* denote conditions that require identification, investigation and assessment to determine acceptability. The EQB will not approve a site unless the applicant successfully demonstrates with clear and convincing evidence that the site complies with the evaluation requirements.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.108 (relating to site justification).

§ 236.122. Demography and land use.

(a) *Disqualifying criteria.* Potentially suitable sites may not be located where nearby facilities, activities, population or development will mask monitoring of the disposal site or affect the disposal site's compliance with the performance objectives.

(b) *Evaluation requirements.* Demographic and land use characteristics that could be affected by a potentially suitable site relate to items, such as population distribution and future growth, land use, nearby facilities, safety and support services and economic conditions. Evaluations shall be made to determine the effects a proposed site location could have on existing and projected future conditions.

(1) Conditions of ownership, such as surface ownership, mineral rights, rights-of-way and liens shall be identified and evaluated with respect to site acquisition requirements of section 307 of the act (35 P. S. § 7130.307).

(2) An evaluation of compatibility with adopted county and municipal plans for land use and zoning, population distribution, projected population growth and restrictions shall be on record.

(3) The evaluations shall show potential impacts on facilities and structures, including schools, parks, hospitals, churches, retail centers, nursing homes and business establishments.

(4) An evaluation of support and safety services, including utilities, fire protection, police and medical capabilities shall be currently available upon which the disposal facility would rely. The evaluation shall include an assessment of future service needs necessary to adequately support the disposal facility.

(5) Economic conditions within the affected area of a potentially suitable site shall be described and analyzed. Potential impacts on the existing conditions shall be determined. Sufficient information and analysis shall be provided to allow for assessment of benefits and guarantees under section 318 of the act (35 P. S. § 7130.318).

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); 25 Pa. Code § 236.108 (relating to site justification); and 25 Pa. Code § 236.121 (relating to general requirements).

§ 236.123. Evaluation requirements for transportation.

Existing and projected access roads, from potentially suitable sites to points of exit off existing interstate or limited access highways, shall be identified, described and evaluated with respect to:

- (1) Their general type, conditions, upgrade or construction needs.
- (2) Potential hazards for transportation.
- (3) Residential dwellings per road mile.
- (4) Facilities such as schools, parks or hospitals, per road mile.
- (5) A total travel distance between a potentially suitable site and points of exit from existing interstate or limited access highways.
- (6) Past highway safety records.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); 25 Pa. Code § 236.108 (relating to site justification); and 25 Pa. Code § 236.121 (relating to general requirements).

§ 236.124. Evaluation requirements for meteorology and climatology.

Averages and extremes for regional climatic and site-specific meteorology characteristics, such as temperature, precipitation, humidity, freeze-thaw characteristics and historical trends for airflow patterns, pressure systems and frontal movements, shall be described and evaluated to determine potential effects on a potentially suitable site. The potential for severe weather phenomena such as tornadoes and other storm events based on historical data shall be evaluated.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); 25 Pa. Code § 236.108 (relating to site justification); and 25 Pa. Code § 236.121 (relating to general requirements).

§ 236.125. Seismology.

- (a) *Disqualifying criteria.* Potentially suitable sites may not be located within 1 mile of an active fault.
- (b) *Evaluation requirements.*

(1) Potentially suitable sites shall be evaluated with respect to regional tectonic history and geologic structure, including stability, faults, folds, joints and fractures.

(2) Capable faults identified in the vicinity of a site shall be evaluated to determine correlation of the fault with recorded or suspect earthquake activity and potential impact on site stability.

(3) Potentially suitable sites shall be evaluated to determine the proximity to known or reported seismic epicenters within 200 miles. The probable seismic risk and impact associated with those epicenters that reported a Mercalli intensity of (IV) or greater shall be evaluated.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); 25 Pa. Code § 236.108 (relating to site justification); and 25 Pa. Code § 236.121 (relating to general requirements).

§ 236.126. Surface geology and hydrology.

(a) *Disqualifying criteria.* Potentially suitable sites may not be located:

(1) Within the limits of the 100-year floodplain of a waterway as defined in the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

(2) Within the limits of a coastal floodplain as defined in Federal Executive Order 11988, *Flood Plain Management Guidelines* (42 U.S.C.A. § 4321, note).

(3) Within the area below a dam which may be threatened with loss of life or serious damage to property if a failure of the dam occurs.

(4) Where erosional processes or mass movement of landforms, such as mass wasting and landslides, would affect the long term stability and isolation of waste.

(5) Where there are slopes greater than 15% on areas of the disposal site where disposal units may be located, as mapped on USGS 7.5-minute quadrangles utilizing a scale of 1:24,000 with a contour interval of either 10 feet or 20 feet or on county topographic maps that utilize a scale of 1:50,000 and a contour interval of 20 feet.

(b) *Evaluation requirements.* Potentially suitable sites shall be evaluated:

(1) With respect to regional and local geomorphology. Evaluations shall discuss geomorphic features pertinent to site stability and the relationships between regional and local geomorphic features.

(2) With respect to local and site-specific surface hydrology. Characteristics to be evaluated include:

- (i) Site drainage conditions.
- (ii) Rates of evapotranspiration and infiltration.
- (iii) Rates and directions of runoff.
- (iv) Fluvial features.

- (v) Historical flow conditions.
- (vi) Chemical and physical properties of the waters.
- (3) To determine the potential for, and the impacts from, major modifications of upstream drainage by others.
- (4) With respect to local and site specific erosional processes. Characteristics such as rates, types and directions of erosion shall be described. The potential for mass movement of landforms, including landslides, slumping and mass wasting, shall also be evaluated.
- (5) To determine the probable existence and extent of surface water features, including wetlands, springs and ponds that are sustained by groundwater. This evaluation shall also address the potential for future ponding and surface water discharges.
- (6) To determine the magnitude, frequency and duration of storm events that would cause inundating floods and probable maximum flood conditions.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); 25 Pa. Code § 236.108 (relating to site justification); and 25 Pa. Code § 236.121 (relating to general requirements).

§ 236.127. Subsurface geology and hydrology.

(a) *Disqualifying criteria.* Potentially suitable sites may not be located in areas where there is limestone or other predominantly carbonate lithologic units which exhibit one of the following characteristics:

- (1) Outcrop at the surface.
- (2) Occur within 50 feet of the surface and are greater than 5 feet thick.
- (3) Have been identified as areas with a potential for subsidence.
- (4) Currently exhibit evidence of subsidence at the surface.

(b) *Evaluation requirements.*

(1) The geology at potentially suitable sites shall be evaluated with respect to regional and local stratigraphy, lithologies and potential impact on site stability. Descriptions, illustrations and evaluations shall include characteristics such as local stratigraphic units and their accepted names, relative ages, lithologic descriptions and genetic relationships.

(2) Depths to local and regional zones of permanent saturations including seasonal fluctuations, shall be evaluated. The probability and extent of both permanent and seasonal perched water tables potentially affected by a site shall be evaluated.

(3) Local and potentially affected aquifers shall be described, evaluated and illustrated with respect to the following:

- (i) Characteristics, such as lateral extent and thickness.
- (ii) Rates, directions and volumes of groundwater flow.
- (iii) Porosities and permeabilities.

- (iv) Recharge areas and discharge areas.
- (v) Reported chemical properties.
- (4) Site-specific and local soil conditions shall be evaluated with respect to physical, chemical and mineralogical properties. Characteristics to be evaluated include:
 - (i) Lateral extent and thickness of soil horizons.
 - (ii) Classification names.
 - (iii) Relative ages.
 - (iv) Genetic relationships.
 - (v) Porosities and permeabilities.
 - (vi) Rates, directions and conditions of surface and subsurface flow.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); 25 Pa. Code § 236.108 (relating to site justification); and 25 Pa. Code § 236.121 (relating to general requirements).

§ 236.128. Natural resources.

- (a) *Disqualifying criteria.* Potentially suitable sites may not be located:
 - (1) Within 1/2 mile of a well or spring which is used as a public water supply.
 - (2) Within 1/2 mile of either side of a stream or impoundment for a distance of 5 stream miles upstream of a surface water intake for a public water supply.
 - (3) Within 1/2 mile of an existing important wetland, as defined in Chapter 105 (relating to dam safety and waterway management).
 - (4) Within the boundaries of the following:
 - (i) National Park Systems.
 - (ii) National Forests.
 - (iii) Natural Landmarks designated by the National Park Service.
 - (iv) National Wildlife Refuges.
 - (v) National Fish Hatcheries.
 - (vi) National Wild and Scenic River Systems, including study rivers designated under section 5(a) of the Wild and Scenic River Act (15 U.S.C.A. § 1276(a)).
 - (vii) National System of Trails.
 - (viii) National Wilderness Preservation Systems.
 - (ix) Exceptional Value Watersheds.
 - (x) Historic sites listed on the National Register of Historic Places.
 - (xi) State, county or municipal park systems.
 - (xii) Land owned by the Historical and Museum Commission.
 - (xiii) Lands protected by the Wild and Scenic Rivers Program.
 - (xiv) Designated natural and wild areas.

(5) Within the boundaries of State Forest and State Game Lands unless the agency administering the lands has been given authority by statute or ordinance to allow the siting and operation of the regional disposal facility.

(6) In areas over active or inactive oil and gas wells or gas storage areas. The phrase "active or inactive oil and gas wells or storage areas" has the same meaning as used in the Oil and Gas Act (58 P. S. §§ 601.101—601.605).

(7) On agricultural land established under the Agricultural Area Security Law (3 P. S. §§ 901—915) or Class I agricultural land as defined by the United States Soil Conservation Service.

(8) In areas over active or inactive mines that are identified and substantiated by public records.

(b) *Evaluation requirements.* Potentially suitable sites shall be evaluated:

(1) With respect to water use characteristics of potentially affected water supplies. Existing private, public and community water supplies located onsite or within 3 miles shall be identified and evaluated. The ability to replace existing water supplies with alternate supplies of like quality and quantity shall be evaluated.

(2) To determine potential impact on designated high quality watersheds that may be affected.

(3) To determine the existence of, and potential impact on, endangered and threatened species as defined in the Endangered Species Act of 1973 (16 U.S.C.A. §§ 460K-1, 4601-9, 668aa—668cc-6, 668dd, 715i, 715s, 1362, 1371, 1372, 1402 and 1531—1543).

(4) To determine the existence of, and potential impact on, biologic habitats identified as either endangered, threatened, rare or exemplary; and geologic features identified as outstanding on the Pennsylvania Natural Diversity Inventory.

(5) To determine to what extent previous exploration or exploitation practices have disturbed the natural geologic setting in the area. Evaluations shall identify locations, types and extent of disturbances; and estimate potential impact on site stability.

(6) To determine the types, quantities and physical locations of the natural resources contained therein and shall include an evaluation of the availability of these resources from other areas outside the site. Priority shall be given to avoid areas where natural resources that may be rare or unique to the site exist.

(c) *Wetlands.* The preferred potentially suitable sites submitted to the EQB for approval will be evaluated by the Department to determine the existence of wetlands. The results of this evaluation will be part of the Department's review that will be submitted to the EQB.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); 25 Pa. Code § 236.108 (relating to site justification); and 25 Pa. Code § 236.121 (relating to general requirements).

PHASE II SITE SUITABILITY REQUIREMENTS**§ 236.141. General requirements.**

(a) This section and §§ 236.142—236.149 establish and identify the requirements that a site is required to meet to be considered suitable for the proposed low-level radioactive waste disposal facility. Phase II, site-specific characterization of the three preferred potentially suitable sites, begins after approval is granted by the EQB under § 236.104 (relating to siting process) and after the Department approves the site characterization plan. Site characterization will require access to the sites.

(b) Implementation of the site suitability requirements requires the collection, documentation, analysis, discussion and illustration of detailed site-specific data to supplement the data collected during Phase I screening. The Phase II effort will substantiate or disprove the validity of evaluations and projections made for the three preferred potentially suitable sites chosen in Phase I. The applicant shall clearly demonstrate that the preferred site meets the Phase I and Phase II siting requirements and contributes to compliance with the performance objectives of Subchapter A (relating to general provisions). The findings from the detailed site characterization studies shall be presented as part of the license application required in Subchapter C (relating to regional facility license).

(c) For the type of criteria in which the data collected are considered time variant by the Department, there shall be a minimum of 1 year of data acquisition to substantiate the validity of analyses and conclusions.

(d) The issuance of a license by the Secretary constitutes final approval of the site for the disposal facility.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); and 25 Pa. Code § 236.104 (relating to siting process).

§ 236.142. Characterization and modeling.

A disposal site shall be capable of being characterized, modeled, analyzed and monitored. Characterization shall be adequate to define characteristics and conditions, both onsite and offsite, through monitoring, analysis, modeling and demonstration, to substantiate that the site can satisfy site suitability requirements and meet the performance objectives.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.143. Demography and land use.

A disposal site shall be located so that projected population growth and future developments are not likely to affect the ability of the disposal site to meet the performance objectives in Subchapter A (relating to general provisions).

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.144. Transportation.

A disposal site shall be located so that the roads connecting the site to an existing or limited access highway allow for safe transportation so that risks to the general population will be as low as reasonably achievable.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.145. Meteorology and climatology.

A disposal site shall be located so that adverse climatic and meteorologic conditions will not affect the ability of the disposal site to meet the performance objectives in Subchapter A (relating to general provisions).

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.146. Seismology.

A disposal site shall be tectonically stable to meet the performance objectives in Subchapter A (relating to general provisions). An area shall be avoided where tectonic processes such as faulting, folding or seismic activity may occur with a frequency and to an extent which may affect the isolation of waste and the long term stability of the site.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.147. Surface geology and hydrology.

(a) A disposal site area shall be located where topography and surface geologic processes occur at rates, frequency and extent that they will not affect meeting the performance objectives in Subchapter A (relating to general provisions).

(b) A disposal site shall be generally well drained and free of areas of flooding or frequent ponding. The disposal facility may not be located in a wetland, as defined in Chapter 105 (relating to dam safety and waterway management).

(c) A disposal site shall be located so that upstream drainage areas are minimized to decrease the amount of runoff which could erode or inundate waste disposal units.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.148. Subsurface geology and hydrology.

(a) A disposal site may not be located where hydrologic conditions such as hydraulic conductivity or geologic features such as fractured bedrock occur at rates, frequency or extent that could adversely affect the isolation of waste or the ability to meet the performance objectives in Subchapter A (relating to general provisions).

(b) A disposal site shall be located in a hydrogeologic setting that provides sufficient separation from the groundwater, so that water intrusion into disposal units, perennial or otherwise, will not occur.

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

§ 236.149. Natural resources.

(a) A disposal site shall be located so that resources, such as those protected by law, those suitable for human consumption and those culturally or historically unique, can be protected during siting, design, construction, operation, closure, decommissioning and long term care.

(b) A disposal site may not be located where exploration or exploitation of natural resources, such as hydrocarbons, industrial minerals, metallic ores and mineral fuels located on the site or in adjacent areas could affect isolation of waste or, the ability to meet the performance objectives in Subchapter A (relating to general provisions).

Cross References

This section cited in 25 Pa. Code § 236.101 (relating to scope and applicability); 25 Pa. Code § 236.104 (relating to siting process); and 25 Pa. Code § 236.141 (relating to general requirements).

Subchapter C. REGIONAL FACILITY LICENSE

LICENSE APPLICATION

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Cross References

This subchapter cited in 25 Pa. Code § 236.141 (relating to general requirements).

LICENSE APPLICATION**§ 236.201. Scope.**

This subchapter addresses the requirements for licensing the regional disposal facility operator. The requirements included are as follows:

- (1) Application for a license.
- (2) License application review procedures and standards.
- (3) Procedures for requesting changes to the disposal facility.

§ 236.202. License required.

(a) A person may not construct, alter, own or operate a low-level waste disposal facility or may receive, possess or dispose of waste received from other persons at the regional disposal facility unless authorized by a license issued by the Department under this chapter.

(b) A person shall file an application with the Department under § 236.212 (relating to filing and distribution of license application) and obtain a license as provided in this subchapter before commencement of construction of the disposal facility. Failure to comply with this requirement will be grounds for denial of a license.

§ 236.203. License application fee.

The license application fee is \$800,000.

§ 236.204. Content of a license application.

In addition to the requirements in § 236.212 (relating to filing and distribution of license application), an application to receive from others, possess and dispose of wastes shall consist of:

- (1) General information, program plans, a quality assurance/quality control program, specific technical information, institutional control information and financial information as set forth in §§ 236.205—236.211.
- (2) An impact analysis report. The report shall address the impact of licensing the activity and include:
 - (i) A detailed assessment of the radiological and nonradiological impacts to the public health and the environment.
 - (ii) A detailed assessment of the impact on the quality and quantity of the surface and groundwater within a 5-mile radius of the site.
 - (iii) A discussion of the long term public health and environmental impacts, including closure, decommissioning, decontamination and reclamation of the site and facilities associated with the licensed activities and management of radioactive materials which will remain on the site after closure, decommissioning, decontamination and reclamation.
 - (iv) A discussion of the short and long term social and economic impacts of the regional disposal facility on the host and affected municipali-

ties. These impacts will be used to create a minimum set of items to be considered as part of the host and affected municipality benefit negotiations. At a minimum, the study shall include the impacts on local tax revenues, public and private infrastructures, emergency management capabilities and social service demands.

(v) A preoperational environmental radiation survey and a preoperational health survey of cancer and other disease rates and birth defects within 5 miles of the site.

(vi) Justification for the choice of the proposed site over the other two preferred potentially suitable sites.

Cross References

This section cited in 25 Pa. Code § 236.106 (relating to selection procedure for the proposed site).

§ 236.205. General information.

The license application shall include general information as follows:

(1) The identity of the applicant, including:

(i) The full name, address, telephone number and description of the business or occupation of the applicant.

(ii) The name and address of each partner and the principal location where the partnership does business, if the applicant is a partnership.

(iii) The following, if the applicant is a corporation or an unincorporated association:

(A) The state in which it is incorporated or organized and the principal location at which it does business.

(B) The names and addresses of its directors and principal officers.

(iv) Information required under this section with respect to the other person, if the applicant is acting as an agent or representative of another person in filing the application.

(2) Qualifications of the applicant as follows:

(i) The organizational structure of the applicant, both offsite and onsite, including a description of lines of authority, key positions and assignments of responsibilities, whether in the form of administrative directives, contract provisions or otherwise.

(ii) The technical qualifications, including training and experience, of the applicant and members of the applicant's staff to engage in the proposed activities. Minimum training and experience requirements for personnel filling key positions described in subparagraph (i) shall be provided.

(iii) A description of the applicant's personnel training program.

(iv) The plan to maintain an adequate complement of trained personnel to carry out waste receipt, handling and disposal operations in a safe manner.

(3) A description of:

(i) The location of the proposed disposal site.

- (ii) The general character of the proposed activities.
- (iii) The types and quantities of waste to be received, possessed and disposed of.
- (iv) The proposed facilities and equipment.
- (4) Proposed schedules for construction, receipt of waste and first emplacement of waste at the disposal facility.
- (5) A description of the applicant's compliance with State and Federal environmental protection statutes including the Radiation Protection Act and Low-Level Radioactive Waste Disposal Act, the Appalachian States Low-Level Radioactive Waste Compact Act or other state or Federal statute relating to environmental protection or to protect the public health and safety.

Cross References

This section cited in 25 Pa. Code § 236.204 (relating to content of a license application); and 25 Pa. Code § 236.226 (relating to conditions of the license).

§ 236.206. Program plans.

- (a) The applicant shall submit the following detailed program plans:
 - (1) A siting plan under § 236.103 (relating to siting plan).
 - (2) A quality assurance/quality control plan under § 236.207 (relating to quality assurance/quality control program).
 - (3) A monitoring plan under § 236.409 (relating to monitoring plan).
 - (4) A security plan under § 236.403(a)(1) (relating to facility operation plan).
 - (5) An operations plan under § 236.403.
 - (6) A contingency plan under § 236.404 (relating to contingency plans).
 - (7) A radiation control plan under § 236.403(c).
 - (8) A construction plan under § 236.402 (relating to construction plan).
 - (9) A site closure and decommissioning plan under § 236.411 (relating to site closure and decommissioning plan).
- (b) The plans set forth in subsection (a), and subsequent changes thereto, will be reviewed and approved by the Department. The requirement to implement the approved plans will be incorporated into the facility license.
- (c) The plans shall demonstrate that the necessary technical information and analyses can be obtained and used to demonstrate compliance with the performance objectives.

Cross References

This section cited in 25 Pa. Code § 236.204 (relating to content of a license application); and 25 Pa. Code § 236.245 (relating to content of license application for closure).

§ 236.207. Quality assurance/quality control program.

A quality assurance/quality control plan shall be submitted to the Department for approval. The plan shall include a description of the quality assurance/quality

control program for the determination of natural disposal site characteristics and for quality assurance/quality control during the design, construction, operation and closure of the disposal facility and the receipt, handling and emplacement of waste. Audits and managerial controls shall be included.

Cross References

This section cited in 25 Pa. Code § 236.204 (relating to content of a license application); and 25 Pa. Code § 236.206 (relating to program plans).

§ 236.208. Specific technical information.

The specific technical information shall include information needed for demonstrating that the performance objectives and the applicable technical requirements of this chapter will be met. The following shall be included:

(1) A description of the natural and demographic disposal site characteristics as determined by site screening and characterization activities contained in Subchapter B (relating to requirements for siting the regional disposal facility). The description shall include demographic, meteorologic, climatologic, biotic, ecologic, hydrologic, geologic (including geochemical and geotechnical) and natural resource features of the disposal site and vicinity.

(2) A description of the design features of the disposal facility and the disposal units. The description shall include those design features related to the following:

- (i) Minimization of water intrusion.
- (ii) Integrity of covers for disposal units.
- (iii) Structural stability.
- (iv) Contact of wastes with standing water.
- (v) Disposal site drainage.
- (vi) Closure and stabilization.
- (vii) Recoverability.
- (viii) Elimination to the extent practicable of long term active maintenance.
- (ix) Protection from inadvertent intrusion.
- (x) Occupational exposures.
- (xi) Monitoring.
- (xii) Adequacy of the size of the buffer zone for monitoring and potential remedial measures.

(3) A description of the principal design features and their relationship to the performance objectives.

(4) A description of the engineered structures which the applicant has incorporated into the design and which will apply to construction of the disposal facility.

(5) A description of codes and standards which the applicant has applied to the design and which will apply to construction of the disposal facility.

(6) A description of the construction and operation of the disposal facility. The description shall include at a minimum:

- (i) Methods of constructing the disposal units.
- (ii) Waste emplacement.
- (iii) Procedures for and areas of waste segregation.
- (iv) Types of intruder barriers.
- (v) Onsite traffic and drainage systems.
- (vi) Survey control program.
- (vii) Methods and areas of waste storage.
- (viii) Methods to control water access to the wastes.

(ix) The methods to be employed in the handling and disposal of wastes containing chelating agents or other nonradiological substances that might affect meeting the performance objectives of Subchapter A (relating to general provisions).

(7) A description of the disposal site closure and decommissioning plan under § 236.411 (relating to site closure and decommissioning plan); specifically those design features which are intended to facilitate disposal site closure and to eliminate the need for ongoing active maintenance.

(8) An identification of the known natural resources at the disposal site, exploitation of which could result in inadvertent intrusion into the waste after removal of active institutional control.

(9) A description of the various low-level waste streams and the physical and chemical properties, and the volumes and different classes of waste proposed to be received, possessed and disposed of at the disposal facility. The description shall include consideration of projected variations in future waste streams and volumes and their potential affect on the disposal facility.

(10) A description of the radiation safety program for control and monitoring of radioactive effluents to ensure compliance with the performance objective in Subchapter A and occupational radiation exposure to ensure compliance with Chapter 219 (relating to standards for protection against radiation) and to control contamination of personnel, vehicles, equipment, buildings and the disposal site. Both routine operations and accidents shall be addressed. The program description shall include procedures, instrumentation, facilities and equipment. Application of as low as reasonably achievable shall be discussed.

(11) A description of the monitoring program under § 236.409 (relating to monitoring plan) to provide data to evaluate disposal facility performance, potential health and environmental impacts and the plan for taking remedial measures.

(12) A description of the administrative procedures that the applicant will apply to control activities at the disposal facility.

(13) A description of potential operational accidents and the methodology to assure that likely accident scenarios are bounded.

Cross References

This section cited in 25 Pa. Code § 236.204 (relating to content of a license application).

§ 236.209. Technical analyses.

The specific technical information shall also include the following analyses needed to demonstrate that the performance objectives of Subchapter A (relating to general provisions) will be met:

(1) Analyses of the pathways demonstrating protection of the general population from releases of radioactivity. Pathways analyzed shall include air, soil, groundwater, surface water, plant uptake and exhumation by burrowing animals. The analyses shall clearly identify and differentiate between the roles performed by the natural site characteristics and design features in isolating and segregating the wastes. The analyses shall clearly demonstrate that there is assurance that the exposures to humans from the release of radioactivity will not exceed the limits set forth in the performance objectives in Subchapter A.

(2) Analyses of the protection of individuals from inadvertent intrusion. The analyses shall include a demonstration that there is assurance that the waste classification and segregation requirements will be met and that barriers to inadvertent intrusion will be provided.

(3) Analyses of the protection of individuals during operations. The analyses shall include assessments of expected exposures due to routine operations and likely accidents during handling, storage and disposal of waste. The analyses shall provide assurance that exposures will be controlled to meet the requirements of Chapter 219 (relating to standards for protection against radiation).

(4) Analyses of the long term stability of the disposal site to determine the need for ongoing active maintenance after closure. These analyses shall consider active natural processes, including erosion, mass wasting, slope failure, settlement of wastes, infiltration through disposal covers and surface drainage of the disposal site. The analyses shall provide assurance that there will not be a need for ongoing active maintenance of the disposal site following closure.

Cross References

This section cited in 25 Pa. Code § 236.204 (relating to content of a license application).

§ 236.210. Institutional control information.

The institutional control information submitted by the applicant shall include:

(1) A certification by the Commonwealth that the custodial agency is prepared to accept transfer of the license when § 236.246 (relating to application and transfer of license to the Commonwealth) is met and will assume responsibility for institutional control after site closure and the postclosure observation and maintenance period.

(2) If the proposed disposal site is on land not owned by the Federal government or the Commonwealth, the applicant shall submit evidence that arrangements have been made for assumption of ownership by the Commonwealth before the Department issues a license.

Cross References

This section cited in 25 Pa. Code § 236.204 (relating to content of a license application); and 25 Pa. Code § 236.225 (relating to requirements for issuance of a license).

§ 236.211. Financial information.

The financial information shall be sufficient to demonstrate that the financial qualifications of the applicant are adequate to carry out the activities for which the license is sought and meet the financial assurance requirements of section 316 of the act (35 P. S. § 7130.316) and Subchapter G (relating to financial assurances and liability). The applicant shall provide documented evidence of the availability of funds. If debt capital will be used, letters of commitment from the financial sources shall be provided.

Cross References

This section cited in 25 Pa. Code § 236.204 (relating to content of a license application).

§ 236.212. Filing and distribution of license application.

(a) An application package to obtain a license under this chapter and the Department licenses and permits necessary to construct and operate the disposal facility shall be filed with the Secretary. The applicant shall submit one signed original and 35 copies to the Secretary.

(b) The application package shall contain a statement, signed by a responsible official of the applicant and attested by a notary public, that certifies that the information contained in the application package is true and correct to the best of the official's information and belief.

(c) The application package shall consist of the following:

- (1) The application for a license.
- (2) An impact analysis report.
- (3) The Department license and permit applications necessary for construction and operation of the disposal facility.

Cross References

This section cited in 25 Pa. Code § 236.202 (relating to license required); 25 Pa. Code § 236.204 (relating to content of a license application); 25 Pa. Code § 236.241 (relating to amendments for closure and transfer); and 25 Pa. Code § 236.247 (relating to termination of license).

§ 236.213. Contact person.

Except as otherwise specified, communications and reports concerning this chapter and applications filed under it shall be addressed to the Secretary, Department of Environmental Resources, Post Office Box 2063, Harrisburg, Pennsylvania 17120.

LICENSE REVIEW PROCEDURES AND STANDARDS**§ 236.221. Verification of receipt of application.**

The Department will notify the applicant of its receipt of the license application.

§ 236.222. Public notice.

(a) Upon receipt of the license application, the Department will notify the public of receipt of the application. The notification will include a listing of the locations in which the application can be reviewed by the public. Notification will be provided in the *Pennsylvania Bulletin*, local media, newspapers of wide general circulation and newspapers in the area the regional facility is proposed to be located.

(b) The Department will make the license application available for review in the host municipality.

Cross References

This section cited in 25 Pa. Code § 236.223 (relating to public comment and hearing); 25 Pa. Code § 236.224 (relating to revising the license application); and 25 Pa. Code § 236.241 (relating to amendments for closure and transfer).

§ 236.223. Public comment and hearing.

(a) The Department will hold one public hearing and one public information meeting on the initial license application in the area the regional facility is proposed to be located. The Department will issue a 30-day public notice in the *Pennsylvania Bulletin* and newspapers of general circulation in the area of the proposed host municipality to announce the hearing and meeting dates. There will be a minimum of 30 days time between the public hearing and the public meeting.

(b) Interested persons may submit to the Department written comments regarding the application. Comments shall be submitted within 180 days after notification has been made under § 236.222 (relating to public notice). Interested persons may submit comments at the hearing. A person wishing to examine witnesses shall submit to the Department a numbered list of contentions. The contentions shall be limited to failure of the license application and its contents to conform with the act and this chapter. The applicant shall submit two copies of its testimony 2 weeks before the date the hearing is scheduled. The applicant or

licensee shall make its staff available to answer questions. The Department may establish the duration for oral testimony and may limit the scope of questioning during the hearing.

(c) Written comments and the transcript of the hearing will be considered in the Secretary's decision on the application and become part of the public record.

(d) The Department will provide a written response to comments or testimony at the time a final action is taken.

Cross References

This section cited in 25 Pa. Code § 236.241 (relating to amendments for closure and transfer).

§ 236.224. Revising the license application.

(a) If the license application is rejected, a revised application may be submitted and may incorporate the portions of the previous application that were not the bases of the rejection.

(b) The Department will notify the public of an application rejection. Notification will be issued under § 236.222 (relating to public notice).

§ 236.225. Requirements for issuance of a license.

A license will not be issued unless the applicant affirmatively demonstrates to the satisfaction of the Department that:

(1) The operation will not endanger public health, safety and welfare or the environment.

(2) The application is accurate and complete and the requirements of the act and this chapter have been satisfied.

(3) The applicant is qualified by reason of training and experience to carry out the disposal operations requested in a manner that protects health and minimizes danger to life or property.

(4) The applicant's proposed disposal site, disposal facility design, disposal facility operations, including equipment, facilities and procedures, disposal site closure and postclosure institutional control are adequate to protect the public health and safety by providing assurance that the general population will be protected from releases of radioactivity as specified in the performance objective in § 236.13 (relating to protection of the general population and environment from releases of radioactivity).

(5) The applicant's proposed disposal site, disposal facility design, disposal facility operations, including equipment, facilities and procedures, disposal site closure and postclosure institutional control are adequate to protect the public health and safety by providing assurance that individual inadvertent intruders are protected in accordance with the performance objective in § 236.14 (relating to protection of individuals from inadvertent intrusion).

(6) The applicant's proposed disposal facility design and disposal facility operations, including equipment, facilities and procedures, are adequate to pro-

tect the public health and safety by providing assurance that the standards for radiation protection in Chapter 219 (relating to standards for protection against radiation) will be met.

(7) The applicant's proposed disposal site, disposal facility design, disposal facility operations, disposal site closure and postclosure institutional control are adequate to protect the public health and safety by providing assurance that long term stability of the disposed waste and the disposal site will be achieved and will eliminate to the extent practicable the need for ongoing active maintenance following closure.

(8) The technical requirements of Subchapters B and D—F will be met.

(9) The applicant's proposal for institutional control, as required in § 236.210 (relating to institutional control information), provides assurance that the control will be provided for the long term care period.

(10) The financial or surety arrangements meet the requirements of Subchapter G (relating to financial assurances and liability).

Cross References

This section cited in 25 Pa. Code § 236.241 (relating to amendments for closure and transfer); 25 Pa. Code § 236.242 (relating to other amendments); and 25 Pa. Code § 236.246 (relating to application and transfer of license to the Commonwealth).

§ 236.226. Conditions of the license.

(a) A license issued under this chapter, or a right thereunder, may not be transferred, assigned or disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to another person, unless the Department finds, after securing full information, that the transfer is in accordance with the act and the Department gives its consent in writing in the form of a license amendment.

(b) The licensee shall submit written statements under oath upon request of the Department, before termination of the license, to enable the Department to determine whether the license should be modified, suspended or revoked.

(c) The license will be transferred to the custodial agency on the full implementation of the site closure and decommissioning plan as approved by the Department, including postclosure observation and maintenance.

(d) The licensee shall be subject to the act and to this title and orders of the Department. The terms and conditions of the license are subject to amendment, by reason of amendments to, or by reason of this title and order issued under the act.

(e) The person licensed by the Department under this chapter shall confine possession and use of materials to the locations and purposes authorized in the license.

(f) The licensee may not dispose of waste until the Department has inspected the disposal facility and has found it to be in conformance with plans described in the application for a license and approved by the Department.

(g) The Department may incorporate in the license at the time of issuance, or thereafter, by appropriate rule, regulation or order, additional requirements and conditions with respect to the licensee's receipt, possession and disposal of waste as the Department deems appropriate or necessary to:

(1) Protect health or minimize danger to life or the environment.

(2) Provide for inspections or activities under the license that may be necessary or appropriate to effectuate the purposes of the act and regulations thereunder.

(3) Require tests, reports and the keeping of records.

(h) The authority to dispose of wastes expires on the date stated in the license. The Department will, on a 5-year basis, review the license and conditions of the license. An expiration date on the license applies only to operational activities and to the authority to dispose of waste. Failure to revise the license does not relieve the licensee of responsibility for implementing site closure and decommissioning, postclosure observation and transfer of the license to the Commonwealth.

(i) The license may be revoked, suspended or modified for a material false statement in the application, or because of conditions revealed by a report, record or inspection or other means which would warrant the Department to refuse to grant a license for the original application.

(j) The licensee shall allow the Department, its agents and employees, and the host municipality and host county inspectors, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access to areas where disposal activities are conducted and to examine the records and books relating thereto.

(k) The licensee shall update on an annual basis the general information required under § 236.205 (relating to general information) and other information the Department may require.

§ 236.227. Effective date of decision.

The initial decision to issue a license under this chapter or an amendment to the license shall become effective immediately upon signed order of the Secretary or a delegated representative.

CHANGES TO THE REGIONAL FACILITY LICENSE

§ 236.241. Amendments for closure and transfer.

An application for a license amendment for site closure or license transfer shall be filed under § 236.212 (relating to filing and distribution of license application) and shall fully describe the changes desired. The application shall be subject to

the notice, comment and hearing requirements of §§ 236.222 and 236.223 (relating to public notice; and public comment and hearing). The application for site closure or transfer will not be approved by the Department unless the applicant has demonstrated to the Department's satisfaction that the standards in § 236.225 (relating to requirements for issuance of a license) have been met.

§ 236.242. Other amendments.

Except for site closure or license transfer, if the operator wishes to amend the license, the licensee shall notify the Department and the host municipality of the proposed amendments. The Department will provide public notice of the application in the *Pennsylvania Bulletin*. The public shall have opportunity to comment on the proposed amendments during a period of 60 days after the notification has been published. The application for license amendment will not be approved by the Department unless the applicant has demonstrated to the Department's satisfaction that the standards in § 236.225 (relating to requirements for issuance of a license) have been met.

§ 236.243. Fees.

The Department will determine license amendment application fees on a case by case basis. The fees will be based on administrative costs incurred by the Department.

§ 236.244. Application for closure.

(a) An application for closure under § 236.245 (relating to content of a license application for closure) shall be filed at least 90 days prior to license expiration.

(b) An application for closure shall be filed under § 236.245. Information contained in previous applications, statements or reports filed with the Department under the license may be incorporated by reference if the references are clear and specific.

§ 236.245. Content of a license application for closure.

(a) Prior to final closure of the disposal site, or as otherwise directed by the Department, the licensee shall submit an application to amend the license for closure. This closure application shall include a final revision and specific details of the disposal site closure and decommissioning plan submitted under § 236.206 (relating to program plans) that includes the following:

- (1) Additional geologic, hydrologic or other data pertinent to the long term containment of emplaced wastes obtained during the operational period.
- (2) The results of tests, experiments or other analyses relating to the long term containment of emplaced waste within the disposal facility.
- (3) Proposed revision of plans for:
 - (i) Decontamination or dismantlement of facilities, or both.

- (ii) Stabilization of the disposal site for postclosure care.
- (4) Significant new information regarding the environmental impact of closure activities and long term performance of the disposal site.
- (b) Upon review and consideration of an application to amend the license for closure submitted under this section, the Department will issue an amendment authorizing closure if there is assurance that the long term performance objectives of Subchapter A (relating to general provisions) will be met.

Cross References

This section cited in 25 Pa. Code § 236.244 (relating to application for closure).

§ 236.246. Application and transfer of license to the Commonwealth.

(a) Following closure and the postclosure observation and maintenance period, the licensee may apply for an amendment to transfer the license to the Commonwealth. The license will not be transferred unless the licensee demonstrates to the Department's satisfaction that:

- (1) The closure of the disposal site has been made in conformance with the licensee's site closure and decommissioning plan, as approved as part of the license.
- (2) The performance objectives of Subchapter A (relating to general provisions) have been met and will continue to be satisfied.
- (3) Funds collected for the Account and necessary records for care have been transferred to the Commonwealth.
- (4) The monitoring program is operational for implementation by the Commonwealth.
- (5) The custodial agency which will assume responsibility for institutional control of the disposal site is prepared to assume responsibility and ensure that the institutional requirements found necessary under § 236.225(i) (relating to requirements for issuance of a license) will be met.
- (b) Upon demonstration of the requirements of subsection (a), the disposal facility license will be transferred to the Commonwealth and the operator's license will be terminated.

Cross References

This section cited in 25 Pa. Code § 236.210 (relating to institutional control information); 25 Pa. Code § 236.414 (relating to radiation dose rates at the surface); and 25 Pa. Code § 236.415 (relating to postclosure observation and maintenance).

§ 236.247. Termination of license.

- (a) At any period of time during the long term care period, the custodial agency—licensee—may apply for an amendment to terminate the license.
- (b) The application shall be filed under § 236.212 (relating to filing and distribution of license application) and the requirements of this section.

(c) The licensee shall demonstrate to the satisfaction of the Department that the standards of § 236.508 (relating to determination of hazardous life of the waste) are met.

Subchapter D. DESIGN REQUIREMENTS FOR THE REGIONAL DISPOSAL FACILITY

GENERAL

Sec.
236.301. Scope and purpose.

DESIGN CRITERIA

- 236.311. General requirements.
- 236.312. Compatibility with site.
- 236.313. Acceptance of diverse waste streams.
- 236.314. Enhanced containment.
- 236.315. Recoverability.
- 236.316. Passive isolation.
- 236.317. Minimization of water intrusion during operations.
- 236.318. Water management.
- 236.319. Disposal facility cover system.
- 236.320. Protection from inadvertent intruders.
- 236.321. Protection of workers.
- 236.322. Long term stability of disposal units.
- 236.323. Disruptive external events.
- 236.324. Disposal unit monitoring.
- 236.325. Material performance monitoring.
- 236.326. Remedial measures.
- 236.327. Class C waste.
- 236.328. Mixed waste.
- 236.329. Nonradiological hazards.
- 236.330. Performance assessment.

Cross References

This subchapter cited in 25 Pa. Code § 236.225 (relating to requirements for issuance of a license).

GENERAL

§ 236.301. Scope and purpose.

(a) This subchapter implements section 305 of the act (35 P. S. § 7130.305). The requirements of this subchapter specify the design criteria for an above-grade low-level radioactive waste disposal facility.

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(b) The selected disposal technology shall meet the design criteria that are established in this subchapter and as a goal, be designed and constructed for zero release of radioactive material. The design requirements for addressing containment of waste and the goal of zero release are specified in § 236.314 (relating to enhanced containment). Furthermore, the site in which the disposal facility is to be located shall independently comply with Subchapter B (relating to requirements for siting the regional disposal facility). Consequently, the design criteria have been established to require the applicant to demonstrate that the disposal technology can complement and augment the site's ability to meet the performance objectives of Subchapter A (relating to general provisions).

DESIGN CRITERIA

§ 236.311. General requirements.

(a) Shallow land burial, as defined in § 236.2 (relating to definitions) is prohibited.

(b) Waste emplaced in the disposal facility shall be above the natural grade of the land which shall be known as above-grade disposal. An above-grade disposal facility shall be used unless the applicant can demonstrate that other designs provide significant improvement for recoverability, monitoring and protection of public health and the environment.

(c) The design and construction methods may not adversely affect the ability of the disposal facility to meet the performance objectives of Subchapter A (relating to general provisions).

§ 236.312. Compatibility with site.

(a) The disposal facility shall be compatible with the natural characteristics of the site, as identified in Subchapter B (relating to requirements for siting the regional disposal facility).

(b) The disposal facility shall complement and augment the natural disposal site's ability to assure that the performance objectives of Subchapter A (relating to general provisions) are met.

§ 236.313. Acceptance of diverse waste streams.

(a) The disposal facility shall be capable of accepting low-level radioactive waste generated within the Appalachian Compact region that is classified as a state responsibility under the Low-Level Radioactive Waste Policy Amendments Act of 1985 (42 U.S.C.A. §§ 2021b—2021j).

(b) The disposal facility shall have sufficient capacity to accommodate at least a 30-year useful facility life, as required by the Appalachian State Low-Level Radioactive Waste Compact. Design consideration for disposal capacity shall be based on reasonable waste projections and be capable of accommodating unanticipated changes in waste streams or volumes.

2(c) The disposal facility shall be capable of accommodating low-level waste streams with different physical and chemical properties.

§ 236.314. Enhanced containment.

(a) The disposal facility shall include engineered structures. The engineered structures shall provide additional measures for isolation of waste from the environment. For the purpose of this section, the container by itself cannot satisfy requirements for enhanced containment.

(b) At a minimum, the engineered structures shall provide:

(1) Leak resistance for a minimum of 100 years, following the postclosure observation and maintenance period.

(2) Structural stability to the disposal units. Design goals for the material integrity and stability of the engineered structure shall be commensurate with the time periods specified in subsection (d).

(c) The disposal facility shall independently comply with performance objectives in §§ 236.13 and 236.16 (relating to protection of the general population and environment from releases of radioactivity; and stability of the disposal site) without consideration of natural site features, through the active institutional control period.

(d) The design goal for the disposal facility to provide containment of the different classes of waste shall be for the following minimum time periods:

- (1) Class A radioactive waste—100 years.
- (2) Class B radioactive waste—300 years.
- (3) Class C radioactive waste—500 years.
- (4) Mixed waste—500 years.

Cross References

This section cited in 25 Pa. Code § 236.301 (relating to scope and purpose); 25 Pa. Code § 236.324 (relating to disposal unit monitoring); and 25 Pa. Code § 236.502 (relating to classes of waste).

§ 236.315. Recoverability.

(a) The disposal facility design shall allow for recovery of the waste. This section may not compromise or otherwise lessen the ability of the disposal facility to meet the performance objectives of Subchapter A (relating to general provisions) and the stability requirements of § 236.322 (relating to long term stability of disposal units).

(b) Determinations for recovery of the waste shall be based on the analysis of information collected under §§ 236.324, 236.325 and 236.410 (relating to disposal unit monitoring; material performance monitoring; and environmental monitoring).

Cross References

This section cited in 25 Pa. Code § 236.327 (relating to class C waste); and 25 Pa. Code § 236.328 (relating to mixed waste).

§ 236.316. Passive isolation.

The disposal facility shall be designed for long term isolation and avoidance of the need for remedial action after site closure.

§ 236.317. Minimization of water intrusion during operations.

(a) The design goal for the disposal facility shall be to prevent the contact of waste and waste containers with water prior to and during disposal.

(b) The disposal facility design shall preclude the contact of waste containers with standing water during emplacement into the disposal units.

§ 236.318. Water management.

(a) The design goal for the disposal facility shall be to prevent infiltration of water and eliminate the accumulation of standing water in the disposal units following waste disposal.

(b) The disposal facility shall be designed to direct surface water drainage away from disposal units at velocities and gradients which would not result in erosion that would require ongoing active maintenance.

§ 236.319. Disposal facility cover system.

The disposal units shall include an engineered cover. The design goal for the cover shall be to prevent water infiltration. The cover shall be designed to:

(1) Provide long term stability without the need for active maintenance.

The engineered cover shall perform through the long term care period.

(2) Direct surface runoff away from the disposal unit.

(3) Minimize erosion, differential settlement, ponding, piping, mass wasting and slumping.

§ 236.320. Protection from inadvertent intruders.

(a) The disposal facility shall include intruder barriers for Class B, Class C and mixed wastes. At a minimum, these disposal units shall include an intruder barrier that is an engineered structure, designed to resist inadvertent intrusion for:

(1) Class B waste—300 years.

(2) Class C waste—500 years.

(3) Mixed waste—500 years.

(b) If more than one class of waste is disposed of in the same unit, the more stringent intruder requirement shall be met.

(c) The disposal facility design shall, to the extent practicable, limit radiation exposures to the inadvertent intruder to an annual whole body dose equivalent of 25 millirems.

Cross References

This section cited in 25 Pa. Code § 236.2 (relating to definitions); and 25 Pa. Code § 236.502 (relating to classes of waste).

§ 236.321. Protection of workers.

The disposal facility design shall incorporate systems and features which shall maintain exposures to workers which are as low as reasonably achievable.

§ 236.322. Long term stability of disposal units.

(a) The disposal facility shall be designed to provide long term stability to the engineered structures of the disposal units.

(b) At a minimum, the stability requirements for the engineered structures for the different classes of waste shall be:

- (1) Class A radioactive waste—100 years.
- (2) Class B radioactive waste—300 years.
- (3) Class C radioactive waste—500 years.
- (4) Mixed waste—500 years.

(c) If more than one class of waste is disposed of in the same disposal unit, the more stringent stability requirement shall be met.

(d) Waste containers or modules shall be emplaced in the disposal unit in a manner that maintains physical integrity.

(e) Waste containers or modules shall be designed and emplaced in the disposal unit in a manner that minimizes void space.

Cross References

This section cited in 25 Pa. Code § 236.315 (relating to recoverability); and 25 Pa. Code § 236.502 (relating to classes of waste).

§ 236.323. Disruptive external events.

The disposal facility shall be designed to maintain its structural integrity and provide waste containment capability during an external, disruptive, natural or manmade event which may occur in the area.

§ 236.324. Disposal unit monitoring.

(a) The disposal facility design shall include provisions for a continuous monitoring program. The program shall commence upon placement of the waste into the disposal units and continue through the long term care period.

(b) The disposal unit monitoring system that is used to support the continuous monitoring program shall be capable of detecting and identifying the location, within each disposal unit, of leached radioactive materials. The disposal unit monitoring system shall be designed to be compatible with design provisions for waste recovery in § 236.314 (relating to enhanced containment).

Cross References

This section cited in 25 Pa. Code § 236.315 (relating to recoverability); 25 Pa. Code § 236.327 (relating to class C waste); 25 Pa. Code § 236.328 (relating to mixed waste); and 25 Pa. Code § 236.409 (relating to monitoring plan).

§ 236.325. Material performance monitoring.

(a) An analysis of the materials and components of the engineered structures shall be conducted to demonstrate that the disposal facility can perform through the long term care period.

(b) The disposal facility design shall include provisions for a monitoring program which can provide ongoing verification of the performance of the engineered structure. At a minimum, the program shall provide performance verification beginning at initial operation and up to and including the active institutional control period.

Cross References

This section cited in 25 Pa. Code § 236.315 (relating to recoverability); 25 Pa. Code § 236.327 (relating to class C waste); 25 Pa. Code § 236.328 (relating to mixed waste); and 25 Pa. Code § 236.409 (relating to monitoring plan).

§ 236.326. Remedial measures.

The disposal facility shall be designed to facilitate remedial action. This criterion may not compromise or otherwise lessen the ability of the disposal facility to meet the performance objectives of Subchapter A (relating to general provisions).

§ 236.327. Class C waste.

(a) Class C waste disposal shall be performed apart from other low-level radioactive waste disposal, and Class C waste shall be placed in individual modules.

(b) A Class C module shall be monitored under §§ 236.324 and 236.325 (relating to disposal unit monitoring; and material performance monitoring) and be recoverable under § 236.315 (relating to recoverability).

Cross References

This section cited in 25 Pa. Code § 236.502 (relating to classes of waste).

§ 236.328. Mixed waste.

(a) Mixed waste disposal shall comply with this chapter and Article VII (relating to hazardous waste management).

(b) Mixed waste shall be in a solid and stable form and shall be disposed apart from other low-level radioactive waste disposal.

(c) Mixed waste shall be placed in individual modules. A mixed waste module shall be monitored under §§ 236.324 and 236.325 (relating to disposal unit

monitoring; and material performance monitoring) and be recoverable under § 236.315 (relating to recoverability).

§ 236.329. Nonradiological hazards.

The disposal facility design and operational procedures shall reduce nonradiological hazards to individuals to levels as low as reasonably achievable.

§ 236.330. Performance assessment.

The performance of the disposal facility shall be characterized, analyzed and modeled in order to predict interactions of the disposal units with the environment and compliance with the performance objectives in Subchapter A (relating to general provisions).

**Subchapter E. REQUIREMENTS FOR THE
CONSTRUCTION, OPERATION AND CLOSURE OF THE
REGIONAL DISPOSAL FACILITY**

Sec.

- 236.401. Scope and purpose.
- 236.402. Construction plan.
- 236.403. Facility operation plan.
- 236.404. Contingency plans.
- 236.405. Receipt and handling of waste.
- 236.406. Package integrity.
- 236.407. Minimization of void space.
- 236.408. Operational activity.
- 236.409. Monitoring plan.
- 236.410. Environmental monitoring.
- 236.411. Site closure and decommissioning plan.
- 236.412. Boundary locations.
- 236.413. Buffer zone.
- 236.414. Radiation dose rates at the surface.
- 236.415. Postclosure observation and maintenance.
- 236.416. Institutional control.

Cross References

This subchapter cited in 25 Pa. Code § 236.225 (relating to requirements for issuance of a license).

§ 236.401. Scope and purpose.

(a) Only Classes A, B, C and mixed waste are acceptable for disposal at the regional disposal facility. Waste disposal activities at the regional facility shall meet the construction, operation and closure requirements of this subchapter. The planning and implementation of these activities shall contribute to the goal of zero release of radioactive material.

(b) A mixed waste is not acceptable for disposal at the regional disposal facility if either the facility operator or the Department has reason to believe that the hazardous waste, as originally generated, was not radioactive.

(c) Waste received at the regional disposal facility may not be intentionally diluted by the licensee to alter its classification as identified on the manifest received under § 236.536 (relating to disposal facility operator requirements).

§ 236.402. Construction plan.

The applicant shall submit a construction plan. The plan shall describe procedures that will be implemented to ensure quality work that will consistently conform to applicable standards and codes.

Cross References

This section cited in 25 Pa. Code § 236.206 (relating to program plans).

§ 236.403. Facility operation plan.

(a) The applicant shall submit a facility operation plan for approval by the Department. The plan shall:

(1) Include detailed descriptions of the method of construction of the disposal units, waste emplacement, procedures for and areas of waste segregation, onsite traffic and drainage systems, site security, methods and areas of waste storage, methods to control access of water, mixed wastes or other nonradio-logical substances or waste that may affect meeting the performance objectives of Subchapter A (relating to general provisions).

(2) Be compatible with other plans required by this chapter.

(b) The plan shall include detailed descriptions of closure and stabilization measures that will be carried out as each disposal unit is filled.

(c) A site health and safety plan which addresses radiological health under Chapter 219 (relating to standards for protection against radiation) and occupational hazards shall be submitted. The plan shall be adequate to protect public health and safety, and the environment and provide reasonable assurance that the standards for radiation protection in Chapter 219 will be met. The plan shall identify measures that are intended to provide assurance that radiation exposures to workers are as low as reasonably achievable.

Cross References

This section cited in 25 Pa. Code § 236.206 (relating to program plans).

§ 236.404. Contingency plans.

(a) The applicant shall submit contingency plans for unplanned occurrences, such as fire, industrial accidents, radiological contamination, severe natural events, disposal unit repairs and waste recovery which may adversely affect the health and safety of disposal facility workers or the general public.

(b) The plans shall identify the necessary training, management, procedures, equipment and human resources required to provide emergency response.

(c) The operator shall include one of the following in the license application:

(1) Signed agreements from necessary emergency response units that they will respond to requests from the operator.

(2) Provisions by the operator for adequate emergency response capability as identified in subsections (a) and (b), approved by the Department.

Cross References

This section cited in 25 Pa. Code § 236.206 (relating to program plans).

§ 236.405. Receipt and handling of waste.

(a) The applicant shall submit a plan for the receipt, inspection and handling of waste entering the disposal facility. The plan shall include waste acceptance criteria that define specifications for waste acceptable for disposal at the facility and waste containers that are acceptable for disposal.

(b) The plan shall be designed to ensure that:

(1) Waste that arrives at the disposal site complies with Subchapter F (relating to waste classification, waste characteristics, labeling and manifests).

(2) The procedures and equipment for moving, segregating and storing the waste will be carried out in a safe manner and eliminate, to the maximum extent practicable, the contact of the waste with water.

§ 236.406. Package integrity.

Wastes shall be emplaced in a manner that maintains the container integrity and minimizes the void spaces between containers.

§ 236.407. Minimization of void space.

Void spaces between waste containers shall be minimized to reduce the potential for future subsidence.

§ 236.408. Operational activity.

Active waste disposal operations may not have an adverse effect on disposal units for which closure and stabilization measures have been completed.

§ 236.409. Monitoring plan.

(a) The applicant shall submit a monitoring plan. The monitoring plan shall discuss the function and interrelationship of the requirements of §§ 236.324, 236.325 and 236.410 (relating to disposal unit monitoring; material performance monitoring; and environmental monitoring).

(b) The licensee shall have a contingency plan for taking remedial measures including recovery of waste if the disposal unit monitoring system or environmental monitoring system detects radioactive material which would indicate that

the performance objectives of Subchapter A (relating to general provisions) may not be met. The plan shall identify the necessary training, management procedures and equipment required for corrective action.

(c) The plan shall specifically address monitoring during the preoperational, operational, closure and long term care periods.

(d) An offsite radiation measurement that exceeds the natural background, as established during preoperational environmental monitoring, shall be reported immediately to the Department and host municipality and county. Actions shall be initiated by the licensee to identify and abate the source of the offsite radiation that exceeds the natural background.

Cross References

This section cited in 25 Pa. Code § 236.206 (relating to program plans); 25 Pa. Code § 236.208 (relating to specific technical information); and 25 Pa. Code § 236.413 (relating to buffer zone).

§ 236.410. Environmental monitoring.

(a) At the time a license application is submitted, the applicant shall have conducted a preoperational monitoring program to establish background radiation levels and to provide basic environmental data on the site characteristics. The applicant shall obtain information about the ecology, meteorology, climate, hydrology, geology, geochemistry and seismology of the site. For those characteristics that are subject to seasonal variation, data shall cover at least a 12-month period.

(b) During disposal facility construction and operation, the licensee shall maintain an onsite and offsite environmental monitoring program. Measurements and observations shall be made and recorded to provide data to evaluate the potential health and environmental impacts from all significant pathways during the construction and the operation of the facility and to enable the evaluation of long term effects and the need for mitigating measures. The monitoring system shall be capable of providing early warning of releases of waste from the disposal units.

(c) After the disposal site is closed, the custodial agency responsible for postoperational surveillance of the disposal site shall maintain a monitoring system based on the operating history and the closure and stabilization of the disposal site. The monitoring system shall be capable of providing early warning of releases of waste from the disposal units.

Cross References

This section cited in 25 Pa. Code § 236.315 (relating to recoverability); and 25 Pa. Code § 236.409 (relating to monitoring plan).

§ 236.411. Site closure and decommissioning plan.

(a) The applicant shall submit a plan for closure and decommissioning. The plan shall describe:

(1) Closure, stabilization and monitoring of individual disposal units and their relationship to the final site closure and decommissioning plan.

(2) Methods and procedures that will be implemented to ensure that closed disposal units are not adversely affected by final site closure and decommissioning.

(3) A compatible approach for final closure, decommissioning and stabilization of the regional disposal facility.

(b) The site closure and decommissioning plan will be incorporated into the facility license and will be reviewed every 5 years or at the request of the Department.

Cross References

This section cited in 25 Pa. Code § 236.206 (relating to program plans); and 25 Pa. Code § 236.208 (relating to specific technical information).

§ 236.412. Boundary locations.

The boundaries and locations of each disposal unit shall be accurately located and mapped by means of a land survey. Disposal units shall be marked so that the boundaries of each unit can be easily defined. Three permanent survey marker control points, referenced to United States Geological Survey (USGS) or National Geodetic Survey (NGS) survey control stations, shall be established on the site to facilitate surveys. The USGS or NGS control stations shall provide horizontal and vertical controls as checked against USGS or NGS record files.

§ 236.413. Buffer zone.

A buffer zone of land shall be maintained between disposed waste and the disposal site boundary and beneath the disposed waste. The buffer zone shall be of adequate dimensions to carry out monitoring activities specified in § 236.409 (relating to monitoring plan) and take remedial measures if needed.

§ 236.414. Radiation dose rates at the surface.

Waste shall be emplaced in a manner that limits the radiation dose rate at the surface of the engineered cover to levels that at a minimum will permit the licensee to comply with this chapter at the time the license is transferred under § 236.246 (relating to application and transfer of license to the Commonwealth).

§ 236.415. Postclosure observation and maintenance.

The licensee shall observe and monitor the disposal site, and carry out necessary maintenance and repairs until the site closure and decommissioning is complete and the license is transferred by the Department under § 236.246 (relating to application and transfer of license to the Commonwealth). Responsibility for postclosure observation and maintenance for the disposal site shall be maintained by the licensee for at least 5 years.

§ 236.416. Institutional control.

(a) The Commonwealth's custodial agency shall conduct an institutional control program to physically control access to the disposal site following transfer of control from the disposal site operator. During the active institutional control period, the program shall include active methods for access control, surveillance, monitoring, custodial care and administration of funds to cover the costs for these activities.

(b) During the passive institutional control period, the program shall include passive access control, monitoring and administration of funds to cover the costs for these activities.

Subchapter F. WASTE CLASSIFICATION, WASTE CHARACTERISTICS, LABELING AND MANIFESTS**LOW-LEVEL RADIOACTIVE WASTE CLASSIFICATION SYSTEM**

Sec.

- 236.501. Scope and considerations.
- 236.502. Classes of waste.
- 236.503. Waste classification.
- 236.504. Classification by long- and short-lived radionuclides.
- 236.505. Classification of wastes other than § 236.503.
- 236.506. Sum of fractions rule.
- 236.507. Determination of radionuclide concentrations in waste.
- 236.508. Determination of hazardous life of the waste.

LOW-LEVEL RADIOACTIVE WASTE CHARACTERISTICS

- 236.521. Minimum requirements for classes of waste.
- 236.522. Stability requirements for waste form.
- 236.523. Stabilization of liquid waste.
- 236.524. Minimization of void spaces within waste packages.

LABELING AND WASTE MANIFESTS

- 236.531. Labeling.
- 236.532. Waste manifest.
- 236.533. Generator requirements.
- 236.534. Carrier requirements.
- 236.535. Broker requirements.
- 236.536. Disposal facility operator requirements.
- 236.537. Nonacknowledgment.

Cross References

This subchapter cited in 25 Pa. Code § 236.225 (relating to requirements for issuance of a license); and 25 Pa. Code § 236.405 (relating to receipt and handling of waste).

**LOW-LEVEL RADIOACTIVE
WASTE CLASSIFICATION SYSTEM****§ 236.501. Scope and considerations.**

Determination of the classification of waste involves the following considerations:

(1) Consideration shall be given to the concentration of long-lived radionuclides—and their short-lived precursors—whose potential hazard will persist long after precautions such as the active institutional control period and improved waste form have ceased to be effective. These precautions delay the time when long-lived radionuclides could cause exposures. The magnitude of the potential dose is limited by the concentration and availability of the radionuclides at the time of exposure.

(2) Consideration shall be given to the concentration of shorter-lived radionuclides for which requirements on institutional controls, waste form and disposal methods are effective.

§ 236.502. Classes of waste.

(a) Class A waste is a waste that is usually segregated from other waste classes at the disposal site. The physical form and characteristics of Class A waste shall meet the minimum requirements in § 236.521 (relating to minimum requirements for classes of waste). Class A waste shall also be emplaced in a disposal facility that meets the requirements in §§ 236.314 and 236.322 (relating to enhanced containment; and long term stability of disposal units).

(b) Class B waste is waste that meets more rigorous requirements on waste form to ensure stability after disposal. The physical form and characteristics of Class B waste shall meet both the minimum and stability requirements in §§ 236.521 and 236.522 (relating to stability requirements for waste form). Class B waste shall also be emplaced in a disposal facility that meets the requirements in §§ 236.314 and 236.322. In addition, Class B waste requires protection against inadvertent intrusion, as set forth in § 236.320 (relating to protection from inadvertent intruders).

(c) Class C waste is waste that not only meets more rigorous requirements on waste form to ensure stability but also requires additional measures at the disposal facility including measures to protect against inadvertent intrusion. The physical form and characteristics of Class C waste shall meet both the minimum and stability requirements in §§ 236.521 and 236.522. Class C waste shall also be emplaced in a disposal facility that meets the requirements in §§ 236.314,

236.320 and 236.322. In addition, Class C waste shall be disposed of in accordance with § 236.327 (relating to Class C waste).

§ 236.503. Waste classification.

(a) *Classification by long-lived radionuclides.* If the waste contains only radionuclides listed in Table 1, classification shall be determined as follows:

- (1) If the concentration does not exceed 0.1 times the value in Table 1, the waste is Class A.
- (2) If the concentration exceeds 0.1 times the value in Table 1 but does not exceed the value in Table 1, the waste is Class C.
- (3) If the concentration exceeds the value in Table 1, the waste is not generally acceptable for disposal.
- (4) For waste containing mixtures of radionuclides listed in Table 1, the total concentration shall be determined under § 236.506 (relating to sum of fractions rule).

Table 1

| Radionuclide | Concentration (curies/cubic meter)* |
|---|-------------------------------------|
| C-14 | 8 |
| C-14 in activated metal | 80 |
| Ni-59 in activated metal | 220 |
| Nb-94 in activated metal | 0.2 |
| Tc-99 | 3 |
| I-129 | 0.08 |
| Alpha-emitting radionuclides with half-life greater than 5 years except Uranium | 100** |
| Pu-241 | 3,500** |
| Cm-242 | 20,000** |
| Ra-226 | 100** |

*To convert nanocuries to becquerels (Bq), multiply by 37. To convert curies to gigabecquerels (GBq), multiply by 37.

**Units are nanocuries per gram.

(b) *Classification by short-lived radionuclides.* If the waste does not contain any radionuclide listed in Table 1, classification shall be determined based on the concentrations shown in Table 2. If the waste does not contain a radionuclide listed in Table 1 or Table 2, it is Class A.

- (1) If the concentration does not exceed the value in Table 2, Column 1, the waste is Class A.
- (2) If the concentration exceeds the value in Table 2, Column 1, but does not exceed the value in Table 2, Column 2, the waste is Class B.
- (3) If the concentration exceeds the value in Table 2, Column 2, but does not exceed the value in Table 2, Column 3, the waste is Class C.

(4) If the concentration exceeds the value in Table 2, Column 3, the waste is not generally acceptable for disposal.

(5) For waste containing mixtures of the radionuclides listed in Table 2 the total concentration shall be determined under § 236.506.

Table 2

| Radionuclide | Concentration (curies/cubic meter) | | |
|--|---------------------------------------|--------|--------|
| | Col. 1 | Col. 2 | Col. 3 |
| Total of all radionuclides with less than 5-year half-life | 700 | ** | ** |
| H-3 | 40 | ** | ** |
| Co-60 | 700 | ** | ** |
| Ni-63 | 3.5 | 70 | 700 |
| Ni-63 in activated metal | 35 | 700 | 7,000 |
| Sr-90 | 0.04 | 150 | 7,000 |
| Cs-137 | 1 | 44 | 4,600 |

To convert nanocuries to becquerels (Bq), multiply by 37. To convert curies to gigabecquerels (GBq), multiply by 37.

**There are no limits established for these radionuclides in Class B or C wastes. Practical considerations such as the effects of external radiation and internal heat generation on transportation, handling and disposal will limit the concentrations for these wastes. These wastes shall be Class B unless the concentrations of other radionuclides in Table 1 determine the waste to be Class C independent of these radionuclides.

Cross References

This section cited in 25 Pa. Code § 236.504 (relating to classification by long- and short-lived radionuclides); 25 Pa. Code § 236.505 (relating to classification of wastes other than § 236.503); and 25 Pa. Code § 236.506 (relating to sum of fractions rule).

§ 236.504. Classification by long- and short-lived radionuclides.

If the waste contains a mixture of radionuclides, some of which are listed in Table 1 of § 236.503 (relating to waste classification) and some of which are listed in Table 2 of § 236.503 classification shall be determined as follows:

(1) If the concentration of a radionuclide listed in Table 1 of § 236.503 does not exceed 0.1 times the value listed in Table 1, the class shall be that determined by the concentration of radionuclides listed in Table 2 of § 236.503.

(2) If the concentration of a radionuclide listed in Table 1 of § 236.503 exceeds 0.1 times the value listed in Table 1, but does not exceed the value in

Table 1, the waste shall be Class C, if the concentration of radionuclides listed in Table 2 of § 236.503 does not exceed the value shown in Table 2, Column 3.

§ 236.505. Classification of wastes other than § 236.503.

If the waste does not contain a radionuclide listed in either Table 1 or Table 2 of § 236.503 (relating to waste classification), it is Class A waste.

§ 236.506. Sum of fractions rule.

For determining classification for waste that contains a mixture of radionuclides, it is necessary to determine the sum of fractions by dividing each radionuclide's concentration by the appropriate limit and adding the resulting values. The appropriate limits shall be taken from the same column of the same table. The sum of the fractions for the column shall be less than, or equal to, 1 if the waste class is to be determined by that column.

Example: A waste contains Sr-90 in a concentration of 50 Ci/m (1.85 TBq/m) and Cs-137 in a concentration of 22 Ci/m (814 GBq/m). Since the concentrations both exceed the values in Table 2 of § 236.503, Column 1, they must be compared to Column 2 values. For Sr-90 fraction, $50/150 = 0.33$; for Cs-137 fraction, $22/44 = .5$; the sum of the fractions = 0.83. Since the sum is less than 1, the waste is Class B.

Cross References

This section cited in 25 Pa. Code § 236.503 (relating to waste classification).

§ 236.507. Determination of radionuclide concentrations in waste.

The concentration of a radionuclide may be determined by indirect methods such as use of scaling factors which relate the inferred concentration of one radionuclide to another that is measured; or radionuclide material accountability, if there is reasonable assurance that the indirect methods can be correlated with actual measurements. The concentration of a radionuclide may be averaged over the volume of the waste, or weight of the waste if the units are expressed as nanocuries per gram.

§ 236.508. Determination of hazardous life of the waste.

The hazardous life of the waste is the amount of time that it takes for the disposed low-level radioactive waste to decay to levels so that it can be demonstrated that unrestricted use of the site would result in a dose to a member of the public using the site that is no greater than the dose from natural background radioactivity, in the soil, prior to the site being used for disposal.

Cross References

This section cited in 25 Pa. Code § 236.247 (relating to termination of license).

**LOW-LEVEL RADIOACTIVE WASTE
CHARACTERISTICS****§ 236.521. Minimum requirements for classes of waste.**

The following are minimum requirements for classes of waste and are intended to facilitate handling and provide protection of health and safety of personnel at the disposal site. The requirements are as follows:

(1) Waste shall be packaged in conformance with the conditions of the license issued to the site operator to which the waste will be shipped. If the conditions of the site license are more restrictive than this chapter, the site license conditions shall govern.

(2) Waste may not be packaged for disposal in cardboard, wooden or fiber-board boxes.

(3) Liquid waste shall be solidified.

(4) Waste that has been dewatered shall contain as little free-standing liquid as is reasonably achievable, but the liquid may not exceed 1% of the volume.

(5) Waste may not be capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.

(6) Waste may not contain, or be capable of generating, quantities of toxic gases, vapors or fumes harmful to persons transporting, handling or disposing of the waste. This restriction does not apply to radioactive gaseous waste packaged under paragraph (8).

(7) Waste may not be pyrophoric. Pyrophoric materials contained in wastes shall be treated, prepared and packaged to be nonflammable.

(8) The Department will review on a case-by-case basis, requests for disposal of gaseous waste. Gaseous waste disposal is required to receive Department approval prior to disposal. Waste in gaseous form shall be packaged at a gauge pressure that does not exceed 1.5 atmospheres at 20°C. Total activity may not exceed 100 curies—3.7 TBq—per container.

(9) Waste containing hazardous, biological, pathogenic or infectious material shall be treated to reduce to the maximum extent practicable the potential hazard from the nonradiological materials.

Cross References

This section cited in 25 Pa. Code § 236.502 (relating to classes of waste); 25 Pa. Code § 236.523 (relating to stabilization of liquid waste); and 25 Pa. Code § 271.1 (relating to definitions).

§ 236.522. Stability requirements for waste form.

(a) The requirements of this section and §§ 236.523 and 236.524 (relating to stabilization of liquid waste; and minimization of void spaces within waste packages) are minimum requirements that are intended to provide stability of the

waste. Stability is intended to ensure that the waste does not degrade and affect overall stability of the site through slumping, collapse or other failure of the disposal unit. Stability is also a factor in limiting exposure to an inadvertent intruder, since it provides a recognizable and nondispersible waste.

(b) Waste shall have structural stability. A structurally stable waste form will generally maintain its physical dimensions and its form, under the expected disposal conditions such as weight of overburden and compaction equipment, the presence of moisture and microbial activity, and internal factors, such as radiation effects and chemical changes. Structural stability can be provided by the waste form itself, processing the waste to a stable form or placing the waste in a disposal container or structure that provides stability after disposal.

Cross References

This section cited in 25 Pa. Code § 236.502 (relating to classes of waste).

§ 236.523. Stabilization of liquid waste.

Notwithstanding § 236.521(3) and (4) (relating to minimum requirements for classes of waste), liquid waste or waste containing liquid, shall be converted into a form that contains as little freestanding liquid as is reasonably achievable. The liquid may not exceed 1% of the volume of the waste when the waste is in a disposal container designed to ensure stability, or .5% of the volume of the waste for waste processed to a stable form.

Cross References

This section cited in 25 Pa. Code § 236.522 (relating to stability requirements for waste form).

§ 236.524. Minimization of void spaces within waste packages.

Void spaces within the waste and between the waste and its package shall be reduced to the extent practicable.

Cross References

This section cited in 25 Pa. Code § 236.522 (relating to stability requirements for waste form).

LABELING AND WASTE MANIFESTS

§ 236.531. Labeling.

A container of waste shall be clearly labeled to identify whether it is Class A, Class B or Class C Waste or mixed waste, under this subchapter.

§ 236.532. Waste manifest.

(a) A shipment of waste shall be accompanied by a shipment manifest that contains the name, address, telephone number and Department permit identifica-

tion number of the generator, the carrier who is to transport the waste and the broker who will manage the waste. The manifest may also designate alternate carriers or brokers.

(b) The manifest shall contain a physical description of the waste, the waste volume, radionuclide identity and quantity, the total radioactivity, the principal chemical form and the waste classification—for example, Class A, Class B, Class C or mixed waste in accordance with this chapter. Waste containing more than .1% chelating agents by weight shall be identified and the weight percentage of the chelating agent shall be identified. The manifest shall show the total quantity of the radionuclides H-3, C-14, Tc-99 and I-129.

(c) The manifest shall have a manifest identification number, and if the shipment contains hazardous waste, an EPA hazardous waste identification number.

(d) The waste manifest shall be on a form prepared by the Department. The information provided shall be sufficient to develop a waste data base and conduct performance assessment analyses.

(e) The manifest shall include a certification by the waste generator that the transported materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to 49 CFR Parts 170—179, 10 CFR Part 71 (relating to packaging and transportation of radioactive material) and this title. The certification shall acknowledge that the signer is subject to penalties for violation of the law. The manifest shall be signed and dated by an authorized representative of the generator.

Cross References

This section cited in 25 Pa. Code § 236.534 (relating to carrier requirements).

§ 236.533. Generator requirements.

A generator who transfers waste to the disposal facility or a broker shall:

(1) Prepare waste so that the waste is classified and characterized under this chapter.

(2) Conduct a quality assurance/quality control program approved by the Department to assure compliance with this subchapter. The program shall include management evaluation of audits.

(3) Prepare a complete manifest. The manifest shall contain the number of copies which will provide the generator, carriers, brokers and the disposal facility with one copy for their records and copies to be returned to the generator and to be forwarded to the disposal facility and the Department.

(4) Obtain the handwritten signature of the initial carrier and date of acceptance on the manifest.

(5) Retain a copy of the manifest with documentation of acknowledgment of receipt as the record of transfer.

(6) Forward a copy of the manifest to the disposal facility and another copy to the Department.

- (7) Give the carrier the remaining copies of the manifest.
- (8) Conduct an investigation under § 236.537 (relating to nonacknowledgment), for a shipment or part of a shipment for which acknowledgment of receipt has not been received within the time set forth in § 236.537.

Cross References

This section cited in 25 Pa. Code § 236.535 (relating to broker requirements).

§ 236.534. Carrier requirements.

- (a) No carrier may accept waste from a generator or broker unless it is accompanied by and conforms with a complete and valid manifest under § 236.532 (relating to waste manifest).
- (b) Before transporting waste, a carrier shall sign and date the manifest acknowledging acceptance of the waste from the generator or broker before leaving the generator's or broker's property.
- (c) The carrier shall ensure that the manifest accompanies the waste, and shall deliver it to the carrier, broker or regional facility, as designated on the manifest. The carrier shall contact the generator or broker who delivered the waste to him for further instructions, and shall revise the manifest in accordance with instructions written and signed by the generator or broker. Upon making the designated delivery, the carrier shall:
 - (1) Obtain a date of delivery and handwritten signature of the carrier, broker or regional facility operator.
 - (2) Retain a copy of the manifest.
 - (3) Forward a copy of the manifest to the Department.
 - (4) Give the remaining copies of the manifest to the regional facility operator or the broker.
 - (5) Retain the copies of the manifest signed by the person who delivered the waste to him, by himself and by the person receiving the waste from him for a period of 3 years.
- (d) The carrier shall certify that nothing has been done to the waste which would invalidate the generator's or broker's certification.

§ 236.535. Broker requirements.

- (a) No broker may receive waste from a generator, carrier or broker unless that waste is accompanied by a complete and valid manifest.
- (b) The broker receiving waste shall:
 - (1) Sign and date each copy of the manifest to certify that the waste was received.
 - (2) Note in the manifest discrepancies between materials listed on the manifest and materials received. The broker shall also attempt to resolve discrepancies with the generator, carrier or broker. If the broker is unable to

resolve the discrepancies within 15 days of receiving the waste, he shall notify the Department in writing, and include a copy of the manifest with the letter.

- (3) Give the carrier delivering the waste a copy of the signed manifest.
- (4) Notify the generator that the waste has been received.
- (5) Obtain the handwritten signature of the next carrier as designated on the manifest and date of acceptance.
- (6) Retain a copy of the manifest with documentation of acknowledgment of receipt as a record of transfer for a period of 3 years.
- (7) Forward a copy of the manifest to the disposal facility and another copy to the Department.
- (8) Give the carrier the remaining copies of the manifest.
- (9) Retain the copies of the manifest signed by the person receiving the waste from him for a period of 3 years.

(10) Conduct an investigation under § 236.537 (relating to non-acknowledgment), for a shipment or part of a shipment for which acknowledgment of receipt has not been received within the time set forth in § 236.537.

(c) If the broker repackages, processes, incinerates, solidifies, treats, evaporates or performs another process which results in the generation of a new waste or waste form, the broker shall comply with the generator requirements of § 236.533 (relating to generator requirements), including preparation and implementation of a quality assurance/quality control program, waste preparation and preparation of a new manifest. If the broker consolidates prepackaged waste into one shipment but does not generate a new waste or waste form, he may prepare a new manifest under § 236.533, or he may combine the several manifests of the consolidated shipments.

§ 236.536. Disposal facility operator requirements.

(a) The disposal facility operator may not receive waste from a generator, broker or carrier unless it is accompanied by a complete and valid manifest.

(b) The disposal facility operator shall:

- (1) Sign and date the manifest to certify that the waste was received.
- (2) Note in the manifest discrepancies between materials listed on the manifest and materials received. The operator shall also attempt to resolve any discrepancies with the operator generator, carrier or broker. If the disposal operator is unable to find an explanation for the discrepancies within 15 days of receiving the waste, the operator shall notify the Department in writing, explaining the discrepancies and attempts to resolve them, and include a copy of the manifest with the letter.
- (3) Give the carrier delivering the waste a copy of the signed manifest.
- (4) Notify the generator and broker within 15 days of its receipt.
- (5) Retain the copies of completed manifests until the license is transferred to the custodial agency. During license transfer, the disposal facility operator

shall transfer the manifests to the custodial agency. The custodial agency shall maintain copies of the manifest until the license is terminated.

Cross References

This section cited in 25 Pa. Code § 236.401 (relating to scope and purpose).

§ 236.537. Nonacknowledgment.

A generator or broker who has not received acknowledgment of receipt of the waste shipment from the next broker or the regional facility operator within 15 days of delivery shall immediately investigate why the shipment has not been received by the person so designated on the manifest. If the generator or broker is unable to locate the shipment, he shall prepare a report on the investigation conducted and shall file the report with the Department within 2 weeks after completion of the investigation.

Cross References

This section cited in 25 Pa. Code § 236.533 (relating to generator requirements); and 25 Pa. Code § 236.535 (relating to broker requirements).

**Subchapter G. FINANCIAL ASSURANCES
AND LIABILITY**

Sec.

- 236.601. Scope.
- 236.602. Applicant qualifications and assurance.
- 236.603. Assurance for onsite cleanup during operation.
- 236.604. Assurance for liability during operation.
- 236.605. Funding for site closure and decommissioning.
- 236.606. Assurance for long term care.
- 236.607. Assurance for liability following site closure.

Cross References

This subchapter cited in 25 Pa. Code § 236.211 (relating to financial information); and 25 Pa. Code § 236.225 (relating to requirements for issuance of a license).

§ 236.601. Scope.

The applicant is required to demonstrate, prior to receipt of a license, that funds are available to cover costs for all phases of the facility life. The applicant is provided with several examples of financial or surety arrangements that are acceptable for demonstrating that the necessary funds are available.

§ 236.602. Applicant qualifications and assurance.

Prior to the issuance of a license the applicant shall show to the satisfaction of the Department that the applicant has or can reasonably expect to have necessary

funds to cover the estimated costs of conducting licensed activities over the planned operating life of the project, including costs for construction, operation, closure, postclosure monitoring and emergencies related to the disposal facility.

§ 236.603. Assurance for onsite cleanup during operation.

(a) Prior to receipt of a license, and annually thereafter, the applicant shall provide assurances to the satisfaction of the Department that sufficient funds are available to cover emergency actions necessary to prevent the unpermitted release of radioactive material to the general environment. See §§ 236.13 and 236.15 (relating to protection of the general population and environment from releases of radioactivity; and protection of individuals during operations). In determining the cost of taking emergency actions, the applicant shall provide to the Department any information requested by the Department related to the management, transportation and disposal of low-level radioactivity waste.

(b) The Department will consider factors that may affect the cost of taking emergency actions. The factors include site and waste characteristics, facility design and operating procedures. Based on consideration of the factors, the Department will determine an amount necessary for compliance with the financial assurance requirements of this section. Its determination will include consideration of costs incurred if an independent contractor were hired to perform the work.

(c) Compliance with the financial assurance requirements of this section does not affect the licensee's duty to take emergency actions or have available funds that may be necessary to enable the licensee to take required emergency actions.

(d) Subject to the approval of the Department, the applicant may use financial assurance, insurance or surety arrangements or a combination of arrangements to meet the financial assurance requirements of this section.

§ 236.604. Assurance for liability during operation.

(a) Prior to accepting waste, the licensee shall have in effect insurance or other financial assurance approved by the Department to compensate persons for bodily injury or property damage from sudden or nonsudden incidents arising from the operation of the facility.

(b) In approving the licensee's insurance or other financial assurance, the Department will consider factors that may affect the licensee's potential exposure to liability. The factors include site and waste characteristics, facility design, operating procedures, population within 3 miles of the facility and industrial, commercial or other economic activity within 3 miles of the site.

(c) In approving the licensee's insurance or other financial assurance the Department will consider the licensee's potential exposure to liability as a result of claims for bodily injury or property damage brought against the licensee; and the licensee's duty to defend and indemnify the Commonwealth, the host munici-

pality, the host county and their agents and employees against claims, actions, demands, liabilities and losses at law and equity.

(d) Based on consideration of the factors described in subsections (b) and (c), the Department will determine an amount initially sufficient for providing liability coverage in compliance with this section. The amount determined may not be less than the capital cost of bidding for, siting, acquiring, licensing, planning, developing and constructing the facility.

(e) After commencement of operation, the licensee shall annually provide to the Department information the Department deems necessary for its consideration in determining additional amounts of liability coverage necessary to meet the requirements of the act and this chapter. In determining the additional amounts of liability coverage required, the Department will consider the factors identified in subsections (b) and (c).

(f) The determination and approval by the Department of amounts or types of financial assurance under this section does not affect the licensee's liability or the duty of the licensee to have available funds that may be necessary to satisfy the liability.

(g) Subject to the approval of the Department, the licensee may use an insurance, financial or surety arrangement or combination of arrangements to provide the assurances required by this section. The licensee may provide evidence of commercial insurance, alone or in combination with other acceptable financial or surety arrangements, to satisfy the requirements of this section.

(h) Evidence of commercial insurance shall include the insurer's policy, including endorsements thereto, evidencing the liability insurance coverage it intends to issue covering the facility for third party claims for bodily injury and property damage caused by sudden incidents or nonsudden incidents arising from the operation of the facility.

(i) A commercial insurance policy offered to comply with the requirement for compensation of third parties for bodily injury and property damage caused by sudden or nonsudden incidents arising from the operation of the facility shall contain the following provisions:

(1) Bankruptcy or insolvency of the insured does not relieve the insurer of its obligations under the policy.

(2) The insurer is liable for the payment of any amount within a deductible which may apply to the policy, with a right of reimbursement by the insured or, in the alternative, the insurer includes, within the policy, a provision to pay on behalf of the insured a deductible amount.

(3) The beginning and ending dates, including tail periods, for the policy.

(4) The insurer will give at least 90 days notice to the Department and the insured before cancellation, termination or expiration of the policy, if upon expiration, the policy will not be renewed.

(5) The policy may not be cancelled by anyone before the expiration of the 90-day notice period.

(j) The insurance policy shall be issued by a primary insurer or coinsurers licensed or authorized to do business in this Commonwealth or designated by the Insurance Commissioner as an eligible surplus lines insurer. The primary insurer may reinsure the insurance policy with secondary insurers—reinsurers—who are licensed or authorized to do business in Canada, West Germany, Switzerland, France, or a state of the United States.

(k) The primary insurer may be a commercial insurer, a captive insurer—subject to subsection (j)—or a risk retention group as defined in the Product Liability Risk Retention Act of 1981 (15 U.S.C.A. §§ 3901—3906) as amended by the Liability Risk Retention Act of 1986 (15 U.S.C.A. §§ 3901—3903).

(l) The policy shall provide that the insurer will adhere to the insurance law of the Commonwealth regarding settlement of claims and will be bound by the Unfair Insurance Practices Act (40 P.S. §§ 1171.1—1171.15).

(m) The insurance policy shall follow the comprehensive general liability policy forms approved by the Insurance Department and shall include coverage for environmental impairment liability.

§ 236.605. Funding for site closure and decommissioning.

(a) The applicant shall provide assurances prior to the receipt of a license that sufficient funds are available to carry out disposal site closure and decommissioning, including decontamination or dismantlement of structures. The applicant shall also provide assurances regarding closure and stabilization of the disposal site so that following transfer of the disposal site to this Commonwealth, the need for ongoing active maintenance is eliminated to the extent practicable and only minor custodial care, surveillance and monitoring are required. These assurances shall be based on cost estimates submitted by the applicant and which reflect the Department approved plan for disposal site closure and decommissioning. The applicant's cost estimates shall take into account the total costs that would be incurred if an independent contractor were hired to perform the closure and decommissioning work.

(b) The licensee's financial or surety arrangement shall be submitted as part of the application, and annually thereafter, for review by the Department to assure that sufficient funds will be available for completion of the closure and decommissioning plan.

(c) The amount of the licensee's financial or surety arrangement shall change in accordance with changes in the predicted costs of closure and decommissioning. Factors affecting closure and decommissioning cost estimates include inflation, increases in the amount of disturbed land, changes in engineering plans, closure and stabilization that has already been accomplished, and other conditions affecting costs. The financial or surety arrangement shall be sufficient to cover the costs of closure and decommissioning of the disposal units that are expected to be used before the next 5 year review period.

(d) The surety arrangement shall be written for a specified period of time, shall name the Department as the obligee and shall be automatically renewable unless the surety notifies the Department, and the principal—the licensee—at least 90 days prior to the renewal date, of its intention not to renew. In this situation, the licensee shall submit a replacement surety within 30 days after notification of cancellation. If the licensee fails to provide a replacement surety acceptable to the Department within 30 days before the cancellation becomes effective, the failure constitutes grounds for forfeiture of the surety.

(e) Surety bonds will only be acceptable if issued by a surety authorized to do business in this Commonwealth. If the principal place of business of a surety is outside of this Commonwealth the surety bond shall be signed by an authorized Commonwealth resident agent of the surety.

(f) Proof of the licensee's failure to replace the surety is not necessary for the Department to exercise its right of default. The right of the Department to declare a default because of the licensee's failure to replace the surety shall be a condition of the obligation.

(g) Financial or surety arrangements generally acceptable to the Department include surety bonds, cash deposits, certificates of deposit, government securities rated at least BBB by Standard and Poor or Baa by Moody's Investor Services, trust accounts, irrevocable stand-by letters of credit, trust funds and combinations thereof or other types of arrangements that may be approved by the Department. Self-insurance, or an arrangement which essentially constitutes self-insurance, does not satisfy the financial or surety requirements as they apply to private-sector applicants.

(h) The licensee's financial or surety arrangement shall remain in effect until the closure and decommissioning program has been completed and approved by the Department, and the license has been transferred to the Commonwealth Custodial Agency.

§ 236.606. Assurance for long term care.

Prior to the issuance of the license, the applicant shall provide for the approval of the Department, an agreement between the applicant and the Commonwealth that binds the applicant to ensuring that funds will be collected by the applicant and transferred to the Commonwealth for the purpose of covering the costs of monitoring and required remedial action during the long term care period. The Department will review on an annual basis, funds collected by the operator and paid to the Commonwealth to ensure sufficient funds will be available to provide for long term care.

§ 236.607. Assurance for liability following site closure.

(a) Upon receipt of a license the operator shall collect and transfer to the Commonwealth, at least monthly, funds for paying liability claims against the site operator, Commonwealth, host municipality and host county.

(b) The Department will assure that surcharges levied for deposit into the Protection Fund are adequate to establish a fund of at least \$100 million indexed to increase with cost of living adjustments, upon the date of termination of the operator's license.

(c) The Protection Fund shall be used to pay liability claims, including personal injury or property damage, as follows:

(1) Against the Commonwealth, host municipality and host county arising from their responsibilities under the act.

(2) Against the regional facility licensee after the termination of the license and which arose from the operation of the regional facility during the term of the license.

(d) The Department will review the Protection Fund annually to ensure sufficient funds will be available to meet the requirements of subsection (a).

Subchapter H. INSPECTIONS, TESTS AND RECORDS

Sec.

236.701. Inspection of the regional disposal facility.

236.702. Inspection of records.

236.703. Penalties.

236.704. Enforcement and abatement.

236.705. Tests of the regional disposal facility.

236.706. Maintenance of records.

236.707. Recording receipt of waste shipments.

236.708. Submittal of reports to the Department.

236.709. Transfer of records.

236.710. Submittal of reports by generators and brokers.

§ 236.701. Inspection of the regional disposal facility.

The licensee shall provide the Department, its agents and employees, and the host municipality and host county inspectors, with immediate access to inspect the following for the purpose of determining compliance with the license conditions and applicable regulations and laws:

(1) Waste not yet disposed.

(2) Premises, equipment, operations and facilities in which wastes are received, possessed, handled, treated, stored or disposed.

§ 236.702. Inspection of records.

The licensee shall make available for inspection to the Department, its agents and employees, and the host municipality and host county inspectors records kept by it under this chapter. Authorized representatives of the Department, the host municipality or host county inspectors may copy and use any record required to be kept under this chapter.

§ 236.703. Penalties.

(a) A person who violates the act, this chapter or an order promulgated or issued under the act commits a summary offense and will, upon conviction, be sentenced to pay a fine of at least \$100 but not more than \$1,000 for each offense. Default of the fine payment will result in a prison term of a maximum of 90 days.

(b) A person who violates the act, this chapter, a license condition or an order promulgated or issued under the act, within 2 years of having been convicted of a summary offense under the act, commits a misdemeanor of the third degree and will, upon conviction, be sentenced to pay a fine of at least \$1,000 but not more than \$25,000 for each offense or a maximum prison term of 1 year, or both.

(c) A person who intentionally violates the act or this chapter, an order, permit condition or license condition of the Department under the act and whose action causes the possibility of a public nuisance or bodily harm to a person commits a felony of the second degree and shall, upon conviction, be sentenced to pay a fine of at least \$2,500 but not more than \$100,000 for each offense per day for each violation or be subject to a prison term of at least 1 year but not more than 10 years, or both.

(d) Each day of continued violation of the act or this chapter, an order, permit condition or license condition of the Department issued under the act shall constitute a separate offense.

(e) In addition to subsections (a)—(d) or in equity for a violation of the act or this chapter, an order, permit condition or license condition of the Department issued under the act, the Department may assess a civil penalty. The civil penalty will not exceed \$25,000 for each violation.

(f) Civil payments shall be paid under section 504(e) of the act (35 P. S. § 7130.504(e)).

§ 236.704. Enforcement and abatement.

(a) A violation of section 505 of the act (35 P. S. § 7130.505) or this chapter, an order, permit condition or license condition of the Department issued under the act constitutes a public nuisance. A person committing the violation shall be liable for the costs of abatement of the nuisance. The Environmental Hearing Board has jurisdiction over actions to recover costs of the abatement and civil penalties.

(b) The Department may issue orders, injunctions, declarations of emergency or take other actions as specified in section 505 of the act to abate a public nuisance or protect public health and safety and the environment.

§ 236.705. Tests of the regional disposal facility.

The licensee shall perform or permit the Department, its agents and employees, and the host municipality and host county inspectors to perform tests it deems appropriate or necessary for the administration of this chapter, including, but not limited to, tests of:

- (1) Waste.
- (2) Facilities used for the receipt, storage, treatment, handling or disposal of waste.
- (3) Radiation detection and monitoring instruments.
- (4) Other equipment and devices used in connection with the receipt, possession, handling, treatment, storage or disposal of waste.

§ 236.706. Maintenance of records.

(a) The licensee shall maintain records and make reports in connection with the licensed activities as may be required by the conditions of the license or by this chapter and orders of the Department.

(b) Records which are required by this chapter or by license conditions shall be maintained for a period specified by this chapter or by license condition. If a retention period is not otherwise specified, the records shall be maintained and transferred to the officials specified in § 236.709 (relating to transfer of records) as a condition of license transfer unless the Department otherwise authorizes their disposition.

(c) Records which shall be maintained under this subchapter may be the original or a reproduced copy of microfilm if the reproduced copy of microfilm is capable of producing a copy that is clear and legible at the end of the required retention period.

Cross References

This section cited in 25 Pa. Code § 236.709 (relating to transfer of records).

§ 236.707. Recording receipt of waste shipments.

Following receipt and acceptance of a shipment of waste, the licensee shall record the date of disposal of the waste, the location in the disposal unit, the condition of the waste packages as received, discrepancies between materials listed on the manifest and those received and evidence of leaking or damaged packages or radiation or contamination levels in excess of limits specified by United States Department of Transportation and this title. The licensee shall briefly describe repackaging operations of the waste packages included in the shipment, plus other information required by the Department as a license condition.

§ 236.708. Submittal of reports to the Department.

(a) *Annual reports.* The licensed disposal facility operator shall file a copy of its financial report or a certified financial statement annually with the Department in order to update the information base for determining financial qualifications.

(b) *Quarterly reports.*

(1) The licensed disposal facility operator shall submit its quarterly report to the Department, host municipality, host county, Low-Level Waste Advisory Committee and the public. The report shall include:

(i) Specification of the quantity of principal contaminants released to unrestricted areas in liquid and in airborne effluents during the preceding quarter.

(ii) The results of the monitoring program.

(iii) A summary of licensee disposal unit survey and maintenance activities.

(iv) A summary, by waste class, of activities and quantities of radionuclides disposed of.

(v) Instances in which observed site characteristics were significantly different from those described in the application for a license.

(vi) Other information the Department may require.

(2) If the quantities of waste released during the reporting period, monitoring results or maintenance performed are significantly different from those predicted, the report shall cover this specifically.

§ 236.709. Transfer of records.

Notwithstanding § 236.706 (relating to maintenance of records), copies of records of the location and the quantity of wastes contained at the disposal site shall be provided, upon license transfer to the Commonwealth Custodial Agency, to:

(1) The chief executive of the host municipality.

(2) The chief executive of the host county.

(3) The host county zoning board or land development and planning agency.

(4) The Governor.

(5) Other State, local and Federal government agencies as designated by the Department at the time of license transfer.

Cross References

This section cited in 25 Pa. Code § 236.706 (relating to maintenance of records).

§ 236.710. Submittal of reports by generators and brokers.

Generators and brokers shall submit, on a quarterly basis, reports to the Department. The reports shall include a listing of the quantities, types and classes of low-level radioactive waste generated during the previous quarter.

[Next page is 237-1.]

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**CHAPTER 237. REBUTTABLE PRESUMPTION OF LIABILITY OF
THE OPERATOR OF THE REGIONAL LOW-LEVEL WASTE
FACILITY**

| Subch. | Sec. |
|------------------------------------|---------|
| A. GENERAL PROVISIONS | 237.1 |
| B. LIABILITY OF THE OPERATOR | 237.101 |

Authority

The provisions of this Chapter 237 issued under the Low-Level Radioactive Waste Disposal Regional Facility Act (35 P. S. §§ 7130.101—7130.703); the Radiation Protection Act (35 P. S. §§ 7110.101—7110.504); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 237 adopted October 15, 1993, effective October 16, 1993, 23 Pa.B. 4885, unless otherwise noted.

Subchapter A. GENERAL PROVISIONS

| Sec. | Scope. |
|--------|--------------|
| 237.1. | Scope. |
| 237.2. | Definitions. |

GENERAL

§ 237.1. Scope.

(a) This chapter addresses the rebuttable presumption of liability of the operator of a regional low-level radioactive waste disposal facility for all damages and radioactive contamination within 3 miles of the regional facility boundary. This chapter establishes terms, conditions and criteria for the implementation of section 319 of the act (35 P. S. § 7130.319).

(b) The presumption of liability of the regional facility operator applies only to civil and administrative proceedings initiated under the act to the extent the actions provide for recovery for damages, the abatement of radioactive contamination or the replacement of a contaminated water supply. The presumption of liability may be invoked by the Department, county and municipal officials and by private citizens instituting the legal actions under the act.

(c) The regional facility operator may not engage in an activity, operation or process prohibited by the act.

§ 237.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Act—The Low-Level Radioactive Waste Disposal Act (35 P. S. §§ 7130.101—7130.905).

Contributes to the damage—A causal connection between the damage to a person or property and regional facility operations.

Damages—A pecuniary compensation or indemnity which may be recovered under the act in a court of competent jurisdiction by a person who has actually sustained a loss, detriment or injury, whether to one's person or property, real or personal, associated with exposure to radioactive material.

Operator—A person who operates a regional facility.

Person—An individual, corporation, partnership, association, public or private institution, cooperative enterprise, municipal authority, public utility, trust, estate, group, Federal Government or agency, State institution or agency or another legal entity which is recognized by law as the subject of rights and duties. The term also includes officers and directors of a corporation or another legal entity having officers and directors.

Preoperational survey—The results of sampling, monitoring and data analysis to assess the presence of radioactive material in air, soil, surface water, groundwater, drinking water supply, buildings or other structures, performed by the operator-licensee designate prior to the acceptance of waste at the regional facility. The term also includes other appropriate measures performed by the operator of the regional facility to assess environmental radiation, birth defects, cancer and other disease rates within 5 miles of the regional facility prior to the acceptance of waste.

Radioactive contamination—The deposition of radioactive material into the air, soil, surface water, groundwater, drinking water supply, equipment, buildings or other structures, or on a person in concentrations or mixtures, or both, that exceed background radiation measurements established during preoperational environmental or health surveys.

Radioactive material—A material which spontaneously emits alpha, beta or gamma radiation, X-rays, neutrons, protons, high energy electrons or other atomic particles.

Rebuttable presumption—A presumption that can be overcome upon an affirmative showing of clear and convincing evidence.

Regional facility—A facility which has been approved by the Appalachian States Low-Level Radioactive Waste Commission and licensed under the act. The term includes "disposal facility" and "facility site" as defined in § 236.2 (relating to definitions).

Regional facility boundary—The outer limits of the licensed disposal site established by land survey.

Regional facility operations—Activities, operations or processes conducted within the regional facility boundary which are attributable to the receipt, handling, management, storage or disposal of low-level radioactive waste.

Subchapter B. LIABILITY OF THE OPERATOR

Sec.

237.101. Presumption of liability.

237.102. Defenses to overcome the presumption.

§ 237.101. Presumption of liability.

It is a rebuttable presumption of law that the regional facility operator is liable and responsible for all damages and radioactive contamination within 3 miles of the regional facility boundary without proof of fault, negligence or causation.

§ 237.102. Defenses to overcome the presumption.

(a) *Damages.* To rebut the presumption of liability for damages, the regional facility operator shall affirmatively prove, by clear and convincing evidence, that the operator did not contribute to the damage.

(b) *Radioactive contamination.* To rebut the presumption of liability for radioactive contamination within 3 miles of the boundary of the regional facility, the regional facility operator shall prove, by clear and convincing evidence, one of the following three defenses:

- (1) The radioactive contamination existed prior to disposal operations on the site of the regional facility as determined by a preoperational survey.
- (2) The landowner has refused to allow the regional facility operator access to the landowner's property to conduct a preoperational survey.
- (3) The radioactive contamination occurred as a result of some cause other than regional facility operations.

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CHAPTER 240. RADON CERTIFICATION

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Authority

The provisions of this Chapter 240 issued under sections 12 and 13 of the Radon Certification Act (63 P. S. §§ 2012 and 2013); section 302 of the Radiation Protection Act (35 P. S. § 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20), unless otherwise noted.

Source

The provisions of this Chapter 240 adopted January 18, 1991, effective January 19, 1991, 21 Pa.B. 317, unless otherwise noted.

Cross References

This chapter cited in 25 Pa. Code § 215.32 (relating to exemption qualifications).

Subchapter A. GENERAL PROVISIONS**GENERAL**

| | |
|--------|--------------------------------------|
| Sec. | |
| 240.1. | Description of regulatory structure. |
| 240.2. | Scope. |
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GENERAL**§ 240.1. Description of regulatory structure.**

(a) The act directs the Department to establish a Radon Certification Program. This chapter specifies the requirements to certify a person to test for and mitigate radon contamination of occupied buildings and to analyze radon samples. Persons exempt from certification are specified in § 240.2 (relating to scope).

(b) Subchapter B (relating to certification) specifies the requirement that a person shall be certified to conduct radon testing, and the requirements for obtaining certification. Subchapter B also contains the requirements for certification in mitigation and laboratory analysis.

(c) Subchapter C (relating to certification review procedures and standards) provides the standards and procedures for review of applications, renewal and modification of certification.

(d) Subchapter D (relating to operation requirements) contains operation requirements for certified persons who conduct radon-related activities. Subchap-

ter D includes the requirements concerning advertising, notice to clients and disclosure of radon information to the Department. These operation requirements are in addition to specific requirements contained in a certification.

(e) Subchapter E (relating to enforcement and decertification) contains the enforcement provisions, including inspection, decertification and assessment of civil penalties. Other enforcement actions are available under sections 308 and 309 of the Radiation Protection Act (35 P. S. §§ 7110.308 and 7110.309) and section 14 of the act (63 P. S. § 2014).

(f) Subchapter F (relating to interim certification) specifies the requirements for persons certified under the Department's Interim Certification Program.

(g) This section is for descriptive purposes only. This section does not limit the authority of the Department under the acts or this chapter.

§ 240.2. Scope.

(a) This chapter applies to all persons except a person:

(1) Testing for or mitigating against radon contamination in a building that the person owns or occupies.

(2) Using measures designed to prevent radon contamination in newly constructed buildings. This exemption does not apply to radon testing or installation of radon mitigating devices in these buildings following occupancy.

(3) Performing testing or mitigation in the course of the person's normal duties as an employee or contractor of the Department or the Federal government.

(4) Performing scientific research if the person discloses the information obtained to the Department under § 240.303 (relating to reporting of information) and the person informs the owner or occupant of the affected building of the following:

(i) That the person is not certified by the Department to test for or mitigate against radon contamination.

(ii) That the test results are not certified.

(iii) That the mitigation methods are for experimental purposes and may be unsuccessful.

(5) Purveying, but not placing, or retrieving passive radon testing devices, such as charcoal canisters or track etch monitors supplied by a certified laboratory, if radon concentrations determined by the laboratory are reported directly to the owner or occupier of the building tested.

(b) This chapter is in addition to, and not in substitution for, other applicable provisions of this article.

Authority

The provisions of this § 240.2 amended under sections 301 and 302 of the Radiation Protection Act (35 P. S. §§ 7110.301 and 7110.302); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

Source

The provisions of this § 240.2 amended July 16, 2004, effective July 17, 2004, 34 Pa.B. 3823. Immediately preceeding text appears at serial pages (204016).

Cross References

This section cited in 25 Pa. Code § 240.1 (relating to description of regulatory structure).

§ 240.3. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

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Act—The Radon Certification Act (63 P. S. §§ 2001—2014).

Acts—The Radon Certification Act and the Radiation Protection Act (35 P. S. §§ 7110.101—7110.703).

Firm—A person, other than an individual.

Laboratory analysis—The act of determining radon concentrations in air, water, soil or passive radon testing devices.

Mitigate—To repair or alter a building or building design for the purpose in whole or in part of reducing the concentration of radon in the indoor atmosphere.

Person—An individual, corporation, partnership, association, trust, estate, public or private institution, group, agency or political subdivision of this Commonwealth, another state or political subdivision or agency thereof, and a legal successor, representative, agency or agency of the entities listed in this definition.

Picocurie per liter—2.2 disintegrations per minute of radioactive material per liter of air.

Radon—The radioactive noble gas Radon-222 and the short-lived radionuclides which are products of Radon-222 decay, including polonium-218, lead-214, bismuth-214 and polonium-214.

Test—The act of examining a building, soil, air or water for the presence of radon, including taking air, soil or water samples, or the act of diagnosing the cause of radon contamination in a building.

WL—working level—One working level is that amount of potential alpha-particle energy dissipated in air by the short-lived daughters in equilibrium with 100 pCi/l of Radon-222. One WL is equal to 130,000 Mev of alpha-particle energy deposited per liter of air.

Subchapter B. CERTIFICATION

CERTIFICATION FOR RADON TESTING

Sec.

- 240.101. Requirement for radon testing certification.
- 240.102. Prerequisites for radon testing certification.
- 240.103. Radon testing application contents.
- 240.104. Application filing deadline.

CERTIFICATION FOR RADON MITIGATION

- 240.111. Requirement for radon mitigation certification.
- 240.112. Prerequisites for radon mitigation certification.
- 240.113. Radon mitigation application contents.

240.114. Application filing deadline.

CERTIFICATION FOR RADON LABORATORY

- 240.121. Requirement for radon laboratory certification.
- 240.122. Prerequisites for radon laboratory certification.
- 240.123. Radon laboratory application contents.
- 240.124. Application filing deadline.

CERTIFICATION FOR PERSONS CERTIFIED IN ANOTHER STATE

- 240.131. States with reciprocal agreements with the Commonwealth.
- 240.132. Limited radon practice in this Commonwealth.
- 240.133. Certification application contents.

Cross References

This subchapter cited in 25 Pa. Code § 240.1 (relating to description of regulatory structure).

CERTIFICATION FOR RADON TESTING

§ 240.101. Requirement for radon testing certification.

A person may not test for radon or represent or advertise that he may so test in a building or building lot in this Commonwealth, unless the person has first applied for and obtained certification to test. For a firm to perform radon testing it shall employ at least one person certified to test, and the firm shall submit an application for certification. Not everyone within the firm is required to be certified to test. An individual performing testing and not working for a certified radon testing firm shall obtain radon testing certification prior to performing testing. A person using passive radon monitors, such as charcoal canisters, from a certified radon laboratory does not also have to become certified in radon laboratory analysis.

§ 240.102. Prerequisites for radon testing certification.

(a) *Individual certification for radon testing.* An individual will not be certified to test unless the individual has done the following:

- (1) Taken a Department-approved course on radon.
- (2) Taken and passed a Department-approved written exam on radon testing. The applicant shall forward an official copy of exam results to the Department.
- (3) Had 1 year of professional experience in performing radon measurements.

(4) Submitted a complete and accurate application to the Department, including applicable fees.

(b) *Firm certification for radon testing.* If the applicant for testing certification is a firm, it shall employ at least one individual who is certified to test and who is in responsible charge of the firm's testing activities. If the firm loses its certified individual, the certification automatically lapses and is void until the firm has notified the Department of employment of another certified individual. Within 5 days the firm shall notify the Department in writing when it loses its certified individual.

(c) *Additional requirements.* If the applicant for testing certification is a firm, or an individual performing testing and not working for a certified radon testing firm, the applicant shall also have a quality assurance program, a health and safety program and a continuing education program as required in §§ 240.304—240.307. In addition, the applicant shall be successfully enrolled in the EPA radon measurement proficiency program or equivalent, as required in §§ 240.304—240.307.

Cross References

This section cited in 25 Pa. Code § 240.103 (relating to radon testing application contents).

§ 240.103. Radon testing application contents.

An application for radon testing certification, by both individual and firm, shall be submitted to the Department in writing on forms provided by the Department and shall contain:

(1) Evidence that the applicant has the certification prerequisites contained in § 240.102 (relating to prerequisites for radon testing certification), including the services offered and experience in each. If the applicant is a firm, the application shall also include the duties assigned to the certified individual.

(2) A nonrefundable fee of \$200 for individuals, \$500 for firms.

(3) The applicant's name, address and telephone number. It shall also indicate if the applicant is an individual, partnership, limited partnership, corporation or other entity. The application shall include, when appropriate, the name and address of every officer, general and limited partner, director, principal shareholder, parent corporation and certified person within the applicant's organization.

(4) Compliance information, including descriptions of notices of violation, administrative orders, civil penalty assessments and actions for violations of the act, this chapter or a term or condition of a certification.

(5) Copies of reporting forms, information distributed to potential clients and recent advertisements.

(6) Other information the Department may require related to an applicant's qualifications or technical or administrative information related to radon testing.

(7) A verification by a responsible official of the applicant that the information contained in the application is correct to the best of the official's information and belief, attested by a notary public or district justice.

§ 240.104. Application filing deadline.

A person who expects to conduct radon testing shall file a complete application for certification a minimum of 30 days prior to the anticipated starting date of testing activity.

CERTIFICATION FOR RADON MITIGATION

§ 240.111. Requirement for radon mitigation certification.

A person may not mitigate radon contamination in a building or represent or advertise that he may so mitigate in a building or building lot in this Commonwealth, unless the person has first applied for and obtained certification to mitigate. For a firm to perform radon mitigation it shall employ at least one person certified to mitigate, and the firm shall submit an application for certification. Not everyone within the firm is required to be certified to mitigate. An individual performing mitigation and not working for a certified radon mitigation firm shall obtain radon mitigation certification prior to performing mitigation of radon contamination.

§ 240.112. Prerequisites for radon mitigation certification.

(a) *Individual certification for radon mitigation.* An individual will not be certified to mitigate unless he has done the following:

- (1) Taken a Department-approved course on radon mitigation.
- (2) Taken and passed a Department-approved written exam on radon mitigation. The applicant shall forward an official copy of exam results to the Department.
- (3) Had 1 year professional experience or supervised experience in radon mitigation system installation or 3 years experience in architecture, engineering, electrical contracting, plumbing, carpentry, masonry or related trades.
- (4) Submitted a complete and accurate application to the Department including applicable fees.

(b) *Firm certification for radon mitigation.* If the applicant for mitigation certification is a firm, it shall employ at least one individual who is certified to mitigate and who is in responsible charge of the firm's mitigation activities. If the firm loses its certified individual, the certification automatically lapses and is void until the firm has notified the Department of employment of another certified individual. Within 5 days the firm shall notify the Department in writing when it loses its certified individual.

(c) *Additional requirements.* If the applicant for mitigation certification is a firm, or an individual performing mitigation and not working for a certified miti-

gation firm, he shall also have a health and safety program, and a continuing education program, as required in §§ 240.305 and 240.306 (relating to health and safety program; and continuing education program).

Cross References

This section cited in 25 Pa. Code § 240.113 (relating to radon mitigation application contents).

§ 240.113. Radon mitigation application contents.

An application for mitigation certification, by both individual and firm, shall be submitted to the Department in writing on forms provided by the Department and shall contain:

- (1) Evidence that the applicant has the certification prerequisites contained in § 240.112 (relating to prerequisites for radon mitigation certification), including the services offered and experience in each. If the applicant is a firm, the applicant shall also include the duties assigned to the certified individual.
- (2) A nonrefundable fee of \$200 for individuals, \$500 for firms.
- (3) The applicant's name, address and telephone number. It shall also indicate if the applicant is an individual, partnership, limited partnership, corporation or other entity. The application shall include, when appropriate, the name and address of every officer, general and limited partner, director, principal shareholder, parent corporation and certified person within the applicant's organization.
- (4) Compliance information, including descriptions of notices of violation, administrative orders, civil penalty assessments and actions for violations of the act, this chapter or a term or condition of a certification.
- (5) Other information the Department may require related to an applicant's qualifications or technical or administrative information related to radon mitigation.
- (6) A verification by a responsible official of the applicant that the information contained in the application is correct to the best of the official's information and belief, attested by a notary public or district justice.

§ 240.114. Application filing deadline.

A person who anticipates conducting radon mitigation services shall file a complete application for certification a minimum of 30 days prior to the anticipated starting date of mitigation activities.

CERTIFICATION FOR RADON LABORATORY

§ 240.121. Requirement for radon laboratory certification.

A person may not perform laboratory analysis or represent or advertise that he may perform laboratory analysis of radon testing devices supplied to the public

or of samples or devices received from the public or from other certified persons, unless that person has obtained radon laboratory analysis certification from the Department.

§ 240.122. Prerequisites for radon laboratory certification.

(a) *Individual certification for laboratory analysis.* A person will not be certified to perform radon laboratory analysis unless the person has done the following:

- (1) Taken a Department-approved course on radon.
- (2) Had 1 year professional experience in performing laboratory analysis of radon measurement devices or samples or is certified in Health Physics by the American Board of Health Physics.
- (3) Received a bachelors degree in the physical sciences or engineering or related fields as approved by the Department, or the education or professional work experience equivalent to a degree, as determined by the Department.
- (4) Submitted a complete and accurate application to the Department, including applicable fees.

(b) *Firm certification for laboratory analysis.* If the applicant for radon laboratory certification is a firm, it shall employ at least one individual who is certified to perform radon laboratory analysis and who is in responsible charge of the laboratory radon analytical activities. If the firm loses its certified individual, the certification automatically lapses and is void until the firm has notified the Department of employment of another certified individual. Within 5 days the firm shall notify the Department in writing when it loses its certified individual.

(c) *Additional requirements.* If the applicant for radon laboratory certification is a firm, or an individual performing laboratory analysis and not working for a certified laboratory, the applicant shall also have a quality assurance program and a continuing education program as required in §§ 240.304—240.307. In addition, the applicant shall be successfully enrolled in the EPA radon measurement proficiency program or equivalent, as required in §§ 240.304—240.307.

Cross References

This section cited in 25 Pa. Code § 240.123 (relating to radon laboratory application contents).

§ 240.123. Radon laboratory application contents.

An application for radon laboratory certification shall be submitted to the Department in writing on forms provided by the Department and shall contain:

- (1) Evidence that the applicant has the certification prerequisites contained in § 240.122 (relating to prerequisites for radon laboratory certification), including the services offered and experience in each. If the applicant is a firm, the applicant shall also include the duties assigned to the certified individual.
- (2) A nonrefundable fee of \$250 for individuals, \$500 for firms.

(3) The applicant's name, address and telephone number. It shall also indicate if the applicant is an individual, partnership, limited partnership, corporation or other entity. The application shall include, when appropriate, the name and address of every officer, general and limited partner, director, principal shareholder, parent corporation and certified person within the applicant's organization.

(4) Compliance information, including descriptions of notices of violation, administrative orders, civil penalty assessments and actions for violations of the act, this chapter or a term or condition of a certification.

(5) Other information the Department may require related to an applicant's qualifications or technical or administrative information related to laboratory analysis of radon samples.

(6) A verification by a responsible official of the applicant that the information contained in the application is correct to the best of the official's information and belief, attested by a notary public or district justice.

§ 240.124. Application filing deadline.

A person who anticipates performing laboratory analysis of samples to determine radon concentrations shall file a complete application for laboratory analysis certification a minimum of 30 days prior to the anticipated starting date of laboratory analysis.

**CERTIFICATION FOR PERSONS CERTIFIED IN
ANOTHER STATE**

§ 240.131. States with reciprocal agreements with the Commonwealth.

The Department may enter into a reciprocal agreement with another state recognizing each state's radon certification program. The Department will not recognize another state's program unless the program's certification is compatible with the one established under the act and this chapter. The Department will publish a notice in the *Pennsylvania Bulletin* listing the state programs it has recognized.

§ 240.132. Limited radon practice in this Commonwealth.

A person may test, mitigate or perform laboratory analysis without first obtaining certification from the Department if the person does the following:

- (1) The person has obtained certification to do so from a state with which the Department has entered into a reciprocal agreement.
- (2) The person conducts that activity in this Commonwealth less than 90 days each calendar year.

§ 240.133. Certification application contents.

A person who has a certification from a state with which the Department has entered into a reciprocal agreement, and who intends to conduct the radon-related activity in this Commonwealth for at least 90 days a year, shall obtain certification from the Department. The application shall be in writing and contain:

- (1) A copy of the certification from the foreign state.
- (2) A nonrefundable fee of \$200.
- (3) The applicant's name, address and telephone number. It shall also indicate if the applicant is an individual, partnership, limited partnership, corporation or other entity. The application shall include, when appropriate, the name and address of every officer, general and limited partner, director, principal shareholders, parent corporations and certified persons within the applicant's organization.
- (4) Compliance information, including descriptions of notices of violation, administrative orders, civil penalty assessments and actions for violations of the act, this chapter or a term or condition of a certification.
- (5) Other information the Department may require related to an applicant's qualifications, or technical or administrative information related to radon testing, mitigation of radon contamination or laboratory analysis of radon samples.
- (6) A verification by a responsible official of the applicant that the information contained in the application is true and correct to the best of the official's information and belief, attested by a notary public or district justice.

**Subchapter C. CERTIFICATION REVIEW PROCEDURES
AND STANDARDS**

- Sec.
- 240.201. Criteria for certification issuance or denial.
- 240.202. Terms of certification.
- 240.203. Conditions of certification.
- 240.204. Certification renewal.
- 240.205. Certification modification.
- 240.206. Notice of certification.

Cross References

This subchapter cited in 25 Pa. Code § 240.1 (relating to description of regulatory structure).

§ 240.201. Criteria for certification issuance or denial.

- (a) A certification application will not be approved unless the applicant affirmatively demonstrates to the Department's satisfaction that the following conditions are met:

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(1) Neither the applicant nor a person identified in the application is in violation of the act or this chapter or has been decertified under § 240.403 (relating to decertification).

(2) The application is accurate and complete and the applicant is in compliance with the requirements of the act and this chapter.

(3) The applicant has the qualifications required in this chapter and is capable of performing the activities for which he is seeking certification as required by the act and this chapter.

(b) The Department may deny certification to a person who has shown a lack of ability or intention to comply with the acts or this chapter, as indicated by past or continuous conduct. A certification lapse under § 240.203(b) (relating to conditions of certification) may be considered evidence of a lack of ability or intention to comply with the acts or this chapter.

Cross References

This section cited in 25 Pa. Code § 240.204 (relating to certification renewal).

§ 240.202. Terms of certification.

(a) A certification will be valid for 2 years following issuance.

(b) Testing, mitigating or other radon-related activity may not be conducted after the expiration of the term of certification.

§ 240.203. Conditions of certification.

(a) Persons certified under this chapter shall, at a minimum, comply with the following conditions:

(1) The certified person shall conduct his activities as described in the approved application.

(2) The certified person shall allow the Department, its agents and employees, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have access to the person's facilities, offices and files for inspection and examination of records. The certified person shall also allow the Department, its agents and employees to accompany him while performing radon-related activities for the purpose of inspection of those activities.

(3) The certified person shall remain in compliance with the acts and this chapter.

(4) For certification of a firm, the certified person shall continue to direct the radon-related activities. The certified person shall have his duties listed in the firm's certification application.

(b) The Department may suspend certification if a condition of certification is violated. The Department will publish notice of the suspension in the *Pennsylvania Bulletin*.

Cross References

This section cited in 25 Pa. Code § 240.201 (relating to criteria for certification issuance or denial).

§ 240.204. Certification renewal.

An application for certification renewal shall contain the contents required in an initial certification application, except that the Department may permit an applicant to rely on information previously submitted if the information remains the same. A certification renewal application shall be issued or denied according to the criteria in § 240.201 (relating to criteria for certification issuance or denial).

§ 240.205. Certification modification.

The terms and conditions of a certification are subject to amendment, revision or modification for a violation of the acts, this chapter or a term or condition of the certification, or for a false statement made to the Department by the certified party, or for a change of condition which would warrant the issuance or denial of a certification on the basis of an original application.

§ 240.206. Notice of certification.

The Department will publish as a notice in the *Pennsylvania Bulletin* the name and address of each person certified under this chapter.

Subchapter D. OPERATION REQUIREMENTS

Sec.

- 240.301. Advertising.
- 240.302. Notice to clients.
- 240.303. Reporting of information.
- 240.304. Quality assurance program.
- 240.305. Health and safety program.
- 240.306. Continuing education program.
- 240.307. EPA Radon Measurement Proficiency Program.
- 240.308. Testing and mitigation protocols.

Cross References

This subchapter cited in 25 Pa. Code § 240.1 (relating to description of regulatory structure).

§ 240.301. Advertising.

A person may not advertise a radon-related service or product with false or misleading statements regarding the offered service or product, or the risks to health or property value. A person required to obtain certification may not advertise a service or product, unless the person has previously obtained a valid certification from the Department to perform that service or provide that product.

§ 240.302. Notice to clients.

(a) A person may not test, mitigate against radon or provide a radon-related service or product without first offering the potential client a price list of services offered, and providing evidence of certification and a notice that only persons certified under the act and this chapter may provide the services or products. For a person who mitigates against radon, a written estimate for services shall constitute a price list. The notice shall read substantially as follows:

NOTICE

The Radon Certification Act requires that anyone who provides any radon-related service or product to the general public must be certified by the Pennsylvania Department of Environmental Protection. You are entitled to evidence of certification from any person who provides such services or products. You are also entitled to a price list for services or products offered. All radon measurement data will be sent to the Department as required in the Act and will be kept confidential. If you have any questions, comments or complaints concerning persons who provide radon-related services, please contact the Department at the Bureau of Radiation Protection, Department of Environmental Protection, P. O. Box 8469, Harrisburg, Pa. 17105-8469, (717) 783-3594.

(b) For a person performing mitigation, warranty information and information on the proper method of checking and servicing of mitigation equipment to maintain its function shall be provided in writing to the client.

§ 240.303. Reporting of information.

(a) Within 45 days after testing, mitigation or other radon-related service is provided, the person providing the service shall submit to the Department in a format approved by the Department the results of testing, including screening measurements, follow-up measurements, premitigation measurements, postmitigation measurements and the method used to mitigate against radon contamination. At a minimum, these results will be retained for 2 years. The information shall include:

- (1) The name of the person providing the service.
- (2) The name and address of the owner or occupant of the building involved.
- (3) The address and location of the building involved, including street and number, post office, full zip code and county.
- (4) The date each measurement was taken, or the mitigation performed.
- (5) The type of house or building, the types of measurements, location within the building of specific measurements, and the results in picocuries per liter or in working levels.
- (6) The type and price of mitigation system installed.

(b) Within 45 days after testing, mitigation or other radon-related service is provided, the person providing radon-related services shall report in writing to the owner or occupier of the building the results in picocuries per liter and when appropriate in working levels of radon measurements taken in the building. If a person provides the service through a certified intermediary, it is the responsibility of the intermediary to report the results.

(c) For a person performing mitigation, each building shall be tested for radon levels before and after the mitigation is performed. Each test shall be at least 24 hours in duration and follow EPA- or DEP-approved protocols. The postmitigation test shall be conducted no sooner than 48 hours after completion of the mitigation. The results of radon testing shall be reported in accordance with this section.

Cross References

This section cited in 25 Pa. Code § 240.2 (relating to scope).

§ 240.304. Quality assurance program.

A person conducting radon testing or radon laboratory analysis activities shall have a quality assurance program to assure that measurements are accurate and errors are controlled. The program shall insure that testing devices are routinely and properly calibrated. The program shall provide the information related to the following activities:

- (1) Organization and responsibilities.
- (2) Sampling procedures.
- (3) Detector custody.
- (4) Analytical procedures.
- (5) Data reduction, validation and reporting.
- (6) Corrective action.
- (7) Quality assurance reports to management.

Cross References

This section cited in 25 Pa. Code § 240.102 (relating to prerequisites for radon testing certification); 25 Pa. Code § 240.122 (relating to prerequisites for radon laboratory certification).

§ 240.305. Health and safety program.

A person conducting radon-related activities shall have a radon health and safety program to protect himself and employees from exposure to radon during the course of their employment. The program shall include records of each individual's exposure to radon. Persons conducting radon-related activities shall maintain exposure to radon as low as reasonably achievable.

Cross References

This section cited in 25 Pa. Code § 240.102 (relating to prerequisites for radon testing certification); 25 Pa. Code § 240.112 (relating to prerequisites for radon mitigation certification); 25 Pa. Code § 240.122 (relating to prerequisites for radon laboratory certification).

§ 240.306. Continuing education program.

A person conducting radon-related activities shall have a radon education program to assure that the applicant and all employees have a minimum of 4 hours initial training, and the certified person shall participate in a continuing education program consisting of a minimum of 8 hours of Department-approved courses or seminars on radon testing or mitigation each year.

Source

The provisions of this § 240.306 amended March 30, 2001, effective March 31, 2001, 31 Pa.B. 1742. Immediately preceding text appears at serial page (204029).

Cross References

This section cited in 25 Pa. Code § 240.102 (relating to prerequisites for radon testing certification); 25 Pa. Code § 240.112 (relating to prerequisites for radon mitigation certification); 25 Pa. Code § 240.122 (relating to prerequisites for radon laboratory certification).

§ 240.307. EPA Radon Measurement Proficiency Program.

A person conducting radon testing or radon laboratory activities shall provide written evidence of successful participation in the most recent EPA Radon/Radon Progeny Measurement Proficiency Program or an alternative program approved by the Department for each radon measurement utilized.

Cross References

This section cited in 25 Pa. Code § 240.102 (relating to prerequisites for radon testing certification); 25 Pa. Code § 240.122 (relating to prerequisites for radon laboratory certification).

§ 240.308. Testing and mitigation protocols.

A person conducting radon testing or mitigation for radon contamination shall conduct the testing and mitigation in accordance with EPA- or DEP-approved protocols and shall comply with applicable statutes, regulations, ordinances and building codes. The following protocols, "Interim Protocols for Screening and Follow-up Radon and Radon Decay Product Measurements," "Indoor Radon and Radon Decay Product Measurement Protocols" and "Guidelines for Radon Mitigation of Residential Dwellings" are available upon request from the following sources:

Environmental Protection Agency
Office of Radiation Programs
Washington, D.C. 20460

Department of Environmental Protection
Bureau of Radiation Protection
Rachel Carson State Office Building, 13th Floor
400 Market Street
Post Office Box 8469
Harrisburg, Pennsylvania 17105-8469

**Subchapter E. ENFORCEMENT AND
DECERTIFICATION**

Sec.

240.401. Inspection.

240.402. Civil penalties.

240.403. Decertification.

Cross References

This subchapter cited in 25 Pa. Code § 240.1 (relating to description of regulatory structure).

§ 240.401. Inspection.

(a) The Department and its agents and employees will:

(1) At all reasonable times, have access to, and require the production of, books and papers, documents and physical evidence pertinent to a matter under investigation related to radon testing, mitigation of radon contamination or radon laboratory analysis.

(2) At all reasonable times, enter a building, property, premises or place of a person who conducts radon-related activities for the purpose of making an investigation or inspection necessary to ascertain the compliance or noncompliance with the act and this chapter.

(b) The Department, its agents and employees may conduct inspections of a building, property, premises or place of business of a person who conducts radon-related activities if a person presents information to the Department or the Department has access to information which gives it reason to believe that one of the following exists:

(1) A person may have violated the act or this chapter.

(2) A person is not in compliance with the terms or conditions of the person's certification.

(3) A condition or practice exists which may pose a threat to public health, safety, welfare or the environment.

(c) An agent or employee of the Department may not enter a private residence for the purpose of conducting an inspection under this section without a search warrant or without the consent of the occupant.

(d) Inspections made under this section are subject to Chapter 220 (relating to notices, instructions and reports to workers; inspections and investigations).

§ 240.402. Civil penalties.

(a) The Department may assess a civil penalty for a violation of the acts or this chapter.

(b) A civil penalty may be assessed or increased, based upon:

(1) The seriousness of the violation.

(2) The monetary loss of an owner or occupier, including the cost to the owner or occupier to remedy the violation.

- (3) The risks to health and safety.
- (4) The cost to the Commonwealth in administration, inspection and enforcement, to remedy the violation.
- (5) The costs avoided by the violator by the violation.
- (6) The culpability of the violator.
- (7) The frequency of the violation.
- (c) Each day of a continuing violation is considered a separate violation for purposes of this chapter.

§ 240.403. Decertification.

- (a) The Department may decertify a person who has violated the acts, this chapter or a term or condition of certification.
- (b) The Department may hold a public hearing or informal conference prior to decertifying a person.
- (c) The Department will publish in the *Pennsylvania Bulletin* a notice of decertification.

Cross References

This section cited in 25 Pa. Code § 240.201 (relating to criteria for certification issuance or denial).

Subchapter F. INTERIM CERTIFICATION

Sec.

240.501. Scope.

240.502. Reapplication when this chapter is adopted as final.

Cross References

This subchapter cited in 25 Pa. Code § 240.1 (relating to description of regulatory structure).

§ 240.501. Scope.

This subchapter applies to persons certified in accordance with the Department's interim certification program as required under section 11 of the act (63 P. S. § 2011).

§ 240.502. Reapplication when this chapter is adopted as final.

A person granted interim certification by the Department shall reapply for certification under this chapter. If a person fails to apply for certification within 60 days of Departmental notification, the interim certification automatically lapses and is void.

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