

# UTAH RADIATION CONTROL RULES

## CHAPTER R313-22 SPECIFIC LICENSES

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**R313. Environmental Quality, Radiation Control.**

**R313-22. Specific Licenses.**

**R313-22-1. Purpose and Authority.**

(1) The purpose of this rule is to prescribe the requirements for the issuance of specific licenses.

(2) The rules set forth herein are adopted pursuant to the provisions of Subsections 19-3-104(3) and 19-3-104(6).

**R313-22-2. General.**

The provisions and requirements of Rule R313-22 are in addition to, and not in substitution for, other requirements of these rules. In particular the provisions of Rule R313-19 apply to applications and licenses subject to Rule R313-22.

**R313-22-4. Definitions.**

"Alert" means events may occur, are in progress, or have occurred that could lead to a release of radioactive material but that the release is not expected to require a response by off-site response organizations to protect persons off-site.

"Principal activities" means activities authorized by the license which are essential to achieving the purpose(s) for which the license was issued or amended. Storage during which no licensed material is accessed for use or disposal and activities incidental to decontamination or decommissioning are not principal activities.

"Site Area Emergency" means events may occur, are in progress, or have occurred that could lead to a significant release of radioactive material and that could require a response by off-site response organizations to protect persons off-site.

**R313-22-30. Specific License by Rule.**

A license by rule is issued in the following circumstances, without the necessity of filing an application for a specific license as required by Subsection R313-22-32(1), and the licensee shall be subject to the applicable provisions of Sections R313-22-33, R313-22-34, R313-22-35, R313-22-36 and R313-22-37:

(1) When a site must be timely remediated of contamination by radioactive materials that are subject to licensing under these rules but are unlicensed;

(2) When radioactive materials existing as a result of improper handling, spillage, accidental contamination, or unregulated or illegal possession, transfer, or receipt, must be stored and those materials have not been licensed under these rules.

**R313-22-32. Filing Application for Specific Licenses.**

(1) Applications for specific licenses shall be filed on a form prescribed by the Executive Secretary.

(2) The Executive Secretary may, after the filing of the original application, and before the expiration of the license, require further statements in order to enable the Executive Secretary to determine whether the application should be granted or

denied or whether a license should be modified or revoked.

(3) Applications shall be signed by the applicant or licensee or a person duly authorized to act for and on the applicant's behalf.

(4) An application for a license may include a request for a license authorizing one or more activities.

(5) In the application, the applicant may incorporate by reference information contained in previous applications, statements, or reports filed with the Executive Secretary, provided the references are clear and specific.

(6) An application for a specific license to use radioactive material in the form of a sealed source or in a device that contains the sealed source shall identify the source or device by manufacturer and model number as registered with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210, 2001 ed. or the equivalent regulations of an Agreement State.

(7) As provided by Section R313-22-35, certain applications for specific licenses filed under these rules shall contain a proposed decommissioning funding plan or a certification of financial assurance for decommissioning. In the case of renewal applications submitted before January 1, 1995, this submittal may follow the renewal application but shall be submitted on or before January 1, 1995.

(8)(a) Applications to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass in excess of the quantities in Section R313-22-90, "Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release", shall contain either:

(i) An evaluation showing that the maximum dose to a individual off-site due to a release of radioactive materials would not exceed one rem effective dose equivalent or five rems to the thyroid; or

(ii) An emergency plan for responding to a release of radioactive material.

(b) One or more of the following factors may be used to support an evaluation submitted under Subsection R313-22-32(8)(a)(i):

(i) The radioactive material is physically separated so that only a portion could be involved in an accident;

(ii) All or part of the radioactive material is not subject to release during an accident because of the way it is stored or packaged;

(iii) The release fraction in the respirable size range would be lower than the release fraction shown in Section R313-22-90 due to the chemical or physical form of the material;

(iv) The solubility of the radioactive material would reduce the dose received;

(v) Facility design or engineered safety features in the facility would cause the release fraction to be lower than shown in Section R313-22-90;

(vi) Operating restrictions or procedures would prevent a release fraction as large as that shown in Section R313-22-90; or

(vii) Other factors appropriate for the specific facility.

(c) An emergency plan for responding to a release of

radioactive material submitted under Subsection R313-22-32(8)(a)(ii) shall include the following information:

(i) Facility description. A brief description of the licensee's facility and area near the site.

(ii) Types of accidents. An identification of each type of radioactive materials accident for which protective actions may be needed.

(iii) Classification of accidents. A classification system for classifying accidents as alerts or site area emergencies.

(iv) Detection of accidents. Identification of the means of detecting each type of accident in a timely manner.

(v) Mitigation of consequences. A brief description of the means and equipment for mitigating the consequences of each type of accident, including those provided to protect workers on-site, and a description of the program for maintaining equipment.

(vi) Assessment of releases. A brief description of the methods and equipment to assess releases of radioactive materials.

(vii) Responsibilities. A brief description of the responsibilities of licensee personnel should an accident occur, including identification of personnel responsible for promptly notifying off-site response organizations and the Executive Secretary; also responsibilities for developing, maintaining, and updating the plan.

(viii) Notification and coordination. A commitment to and a brief description of the means to promptly notify off-site response organizations and request off-site assistance, including medical assistance for the treatment of contaminated injured on-site workers when appropriate. A control point shall be established. The notification and coordination shall be planned so that unavailability of some personnel, parts of the facility, and some equipment will not prevent the notification and coordination. The licensee shall also commit to notify the Executive Secretary immediately after notification of the appropriate off-site response organizations and not later than one hour after the licensee declares an emergency.

NOTE: These reporting requirements do not supersede or release licensees of complying with the requirements under the Emergency Planning and Community Right-to-Know Act of 1986, Title III, Public Law 99-499 or other state or federal reporting requirements, including 40 CFR 302, 2000 ed.

(ix) Information to be communicated. A brief description of the types of information on facility status, radioactive releases, and recommended protective actions, if necessary, to be given to off-site response organizations and to the Executive Secretary.

(x) Training. A brief description of the frequency, performance objectives and plans for the training that the licensee will provide workers on how to respond to an emergency including special instructions and orientation tours the licensee would offer to fire, police, medical and other emergency personnel. The training shall familiarize personnel with site-specific emergency procedures. Also, the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site including the use of team training for the scenarios.



(xi) Safe shutdown. A brief description of the means of restoring the facility to a safe condition after an accident.

(xii) Exercises. Provisions for conducting quarterly communications checks with off-site response organizations and biennial on-site exercises to test response to simulated emergencies. Quarterly communications checks with off-site response organizations shall include the check and update of all necessary telephone numbers. The licensee shall invite off-site response organizations to participate in the biennial exercises. Participation of off-site response organizations in biennial exercises although recommended is not required. Exercises shall use accident scenarios postulated as most probable for the specific site and the scenarios shall not be known to most exercise participants. The licensee shall critique each exercise using individuals not having direct implementation responsibility for the plan. Critiques of exercises shall evaluate the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the response. Deficiencies found by the critiques shall be corrected.

(xiii) Hazardous chemicals. A certification that the applicant has met its responsibilities under the Emergency Planning and Community Right-to-Know Act of 1986, Title III, Public Law 99-499, if applicable to the applicant's activities at the proposed place of use of the radioactive material.

(d) The licensee shall allow the off-site response organizations expected to respond in case of an accident 60 days to comment on the licensee's emergency plan before submitting it to the Executive Secretary. The licensee shall provide any comments received within the 60 days to the Executive Secretary with the emergency plan.

### **R313-22-33. General Requirements for the Issuance of Specific Licenses.**

(1) A license application shall be approved if the Executive Secretary determines that:

(a) the applicant and all personnel who will be handling the radioactive material are qualified by reason of training and experience to use the material in question for the purpose requested in accordance with these rules in a manner as to minimize danger to public health and safety or the environment;

(b) the applicant's proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or the environment;

(c) the applicant's facilities are permanently located in Utah, otherwise the applicant shall seek reciprocal recognition as required by Section R313-19-30;

(d) the issuance of the license will not be inimical to the health and safety of the public;

(e) the applicant satisfies applicable special requirements in Sections R313-22-50 and R313-22-75, and Rules R313-25, R313-32, R313-34, R313-36, or R313-38; and

(f) in the case of an application for a license to receive and possess radioactive material for commercial waste disposal by

land burial, or for the conduct of other activities which the Executive Secretary determines will significantly affect the quality of the environment, the Executive Secretary, before commencement of construction of the plant or facility in which the activity will be conducted, has concluded, after weighing the environmental, economic, technical and other benefits against environmental costs and considering available alternatives, that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values. The Executive Secretary shall respond to the application within 60 days. Commencement of construction prior to a response and conclusion shall be grounds for denial of a license to receive and possess radioactive material in the plant or facility. As used in this paragraph the term "commencement of construction" means clearing of land, excavation, or other substantial action that would adversely affect the environment of a site. The term does not mean site exploration, necessary borings to determine foundation conditions, or other preconstruction monitoring or testing to establish background information related to the suitability of the site or the protection of environmental values.

#### **R313-22-34. Issuance of Specific Licenses.**

(1) Upon a determination that an application meets the requirements of the Act and the rules of the Board, the Executive Secretary will issue a specific license authorizing the proposed activity in a form and containing conditions and limitations as the Executive Secretary deems appropriate or necessary.

(2) The Executive Secretary may incorporate in licenses at the time of issuance, additional requirements and conditions with respect to the licensee's receipt, possession, use and transfer of radioactive material subject to Rule R313-22 as he deems appropriate or necessary in order to:

(a) minimize danger to public health and safety or the environment;

(b) require reports and the keeping of records, and to provide for inspections of activities under the license as may be appropriate or necessary; and

(c) prevent loss or theft of material subject to Rule R313-22.

#### **R313-22-35. Financial Assurance and Recordkeeping for Decommissioning.**

(1) Applicants for a specific license authorizing the possession and use of unsealed radioactive material of half-life greater than 120 days and in quantities exceeding  $10^5$  times the applicable quantities set forth in Appendix B of 10 CFR 30.1 through 30.72, 2001 ed., which is incorporated by reference, shall submit a decommissioning funding plan as described in Subsection R313-22-35(5). The decommissioning funding plan shall also be submitted when a combination of radionuclides is involved if  $R$  divided by  $10^5$  is greater than one, where  $R$  is defined here as the sum of the ratios of the quantity of each radionuclide to the applicable value in Appendix B of 10 CFR 30.1 through 30.72, 2001

ed., which is incorporated by reference.

(2) Applicants for a specific license authorizing possession and use of radioactive material of half-life greater than 120 days and in quantities specified in Subsection R313-22-35(4) shall either:

(a) submit a decommissioning funding plan as described in Subsection R313-22-35(5); or

(b) submit a certification that financial assurance for decommissioning has been provided in the amount prescribed by Subsection R313-22-35(4) using one of the methods described in Subsection R313-22-35(6). For an applicant, this certification may state that the appropriate assurance will be obtained after the application has been approved and the license issued but before the receipt of licensed material. If the applicant defers execution of the financial instrument until after the license has been issued, a signed original of the financial instrument obtained to satisfy the requirements of Subsection R313-22-35(6) shall be submitted to the Executive Secretary before receipt of licensed material. If the applicant does not defer execution of the financial instrument, the applicant shall submit to the Executive Secretary, as part of the certification, a signed original of the financial instrument obtained to satisfy the requirements in Subsection R313-22-35(6).

(3)(a) Holders of a specific license issued on or after January 1, 1995, which is of a type described in Subsections R313-22-35(1) or (2) shall provide financial assurance for decommissioning in accordance with the criteria set forth in Section R313-22-35.

(b) Holders of a specific license issued before January 1, 1995, and of a type described in Subsection R313-22-35(1) shall submit, on or before January 1, 1995, a decommissioning funding plan as described in Subsection R313-22-35(5) or a certification of financial assurance for decommissioning in an amount at least equal to \$750,000 in accordance with the criteria set forth in Section R313-22-35. If the licensee submits the certification of financial assurance rather than a decommissioning funding plan, the licensee shall include a decommissioning funding plan in any application for license renewal.

(c) Holders of a specific license issued before January 1, 1995, and of a type described in Subsection R313-22-35(2) shall submit, on or before January 1, 1995, a decommissioning funding plan as described in Subsection R313-22-35(5) or a certification of financial assurance for decommissioning in accordance with the criteria set forth in Section R313-22-35.

(d) A licensee who has submitted an application before January 1, 1995, for renewal of license in accordance with Section R313-22-37 shall provide financial assurance for decommissioning in accordance with Subsections R313-22-35(1) and (2). This assurance shall be submitted before January 1, 1997.

(4) Table of required amounts of financial assurance for decommissioning by quantity of material:

#### TABLE

Greater than  $10^4$  but less than or equal

to  $10^5$  times the applicable quantities of radioactive material, as defined in Appendix B of 10 CFR 30.1 through 30.72, 2001 ed., which is incorporated by reference, in unsealed form. For a combination of radionuclides, if R, as defined in Subsection R313-22-35(1) divided by  $10^4$  is greater than one but R divided by  $10^5$  is less than or equal to one:

\$750,000

Greater than  $10^3$  but less than or equal to  $10^4$  times the applicable quantities of radioactive material, as defined in Appendix B of 10 CFR 30.1 through 30.72, 2001 ed., which is incorporated by reference, in unsealed form. For a combination of radionuclides, if R, as defined in Subsection R313-22-35(1) divided by  $10^3$  is greater than one but R divided by  $10^4$  is less than or equal to one:

\$150,000

Greater than  $10^{10}$  times the applicable quantities of radioactive material, as defined in Appendix B of 10 CFR 30.1 through 30.72, 2001 ed., which is incorporated by reference, in sealed sources or plated foils. For combination of radionuclides, if R, as defined in R313-22-35(1), divided by  $10^{10}$  is greater than one:

\$75,000

(5) A decommissioning funding plan shall contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning from Subsection R313-22-35(6), including means for adjusting cost estimates and associated funding levels periodically over the life of the facility. The decommissioning funding plan shall also contain a certification by the licensee that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning and a signed original of the financial instrument obtained to satisfy the requirements of Subsection R313-22-35(6).

(6) Financial assurance for decommissioning shall be provided by one or more of the following methods:

(a) Prepayment. Prepayment is the deposit prior to the start of operation into an account segregated from licensee assets and outside the licensee's administrative control of cash or liquid assets so that the amount of funds would be sufficient to pay decommissioning costs. Prepayment may be in the form of a trust, escrow account, government fund, certificate of deposit, or deposit of government securities;

(b) A surety method, insurance, or other guarantee method. These methods shall guarantee that decommissioning costs will be paid. A surety method may be in the form of a surety bond, letter of credit, or line of credit. A parent company guarantee of funds for decommissioning costs based on a financial test may be used if

the guarantee and test are as contained in Subsection R313-22-35(8). A parent company guarantee may not be used in combination with other financial methods to satisfy the requirements of Section R313-22-35. A guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in Subsection R313-22-35(9). A guarantee by the applicant or licensee may not be used in combination with any other financial methods to satisfy the requirements of Section R313-22-35 or in any situation where the applicant or licensee has a parent company holding majority control of the voting stock of the company. A surety method or insurance used to provide financial assurance for decommissioning shall contain the following conditions:

(i) the surety method or insurance shall be open-ended or, if written for a specified term, such as five years, shall be renewed automatically unless 90 days or more prior to the renewal date the issuer notifies the Executive Secretary, the beneficiary, and the licensee of its intention not to renew. The surety method or insurance shall also provide that the full face amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the Executive Secretary within 30 days after receipt of notification of cancellation,

(ii) the surety method or insurance shall be payable to a trust established for decommissioning costs. The trustee and trust shall be acceptable to the Executive Secretary. An acceptable trustee includes an appropriate state or federal government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency, and

(iii) the surety method or insurance shall remain in effect until the Executive Secretary has terminated the license;

(c) An external sinking fund in which deposits are made at least annually, coupled with a surety method or insurance, the value of which may decrease by the amount being accumulated in the sinking fund. An external sinking fund is a fund established and maintained by setting aside funds periodically in an account segregated from licensee assets and outside the licensee's administrative control in which the total amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund may be in the form of a trust, escrow account, government fund, certificate of deposit, or deposit of government securities. The surety or insurance provisions shall be as stated in Subsection R313-22-35(6)(b);

(d) In the case of Federal, State or local government licensees, a statement of intent containing a cost estimate for decommissioning or an amount based on the Table in Subsection R313-22-35(4) and indicating that funds for decommissioning will be obtained when necessary; or

(e) When a governmental entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such governmental entity.

(7) Persons licensed under Rule R313-22 shall keep records of

information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with Subsection R313-19-34(2), licensees shall transfer all records described in Subsections R313-22-35(7)(a) through (d) to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Executive Secretary considers important to decommissioning consists of the following:

(a) records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records shall include any known information on identification of involved nuclides, quantities, forms, and concentrations;

(b) as-built drawings and modification of structures and equipment in restricted areas where radioactive materials are used or stored, and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations;

(c) except for areas containing only sealed sources, provided the sources have not leaked or no contamination remains after a leak, or radioactive materials having only half-lives of less than 65 days, a list contained in a single document and updated every two years, including all of the following:

(i) all areas designated and formerly designated as restricted areas as defined under Section R313-12-3;

(ii) all areas outside of restricted areas that require documentation under Subsection R313-22-35(7)(a);

(iii) all areas outside of restricted areas where current and previous wastes have been buried as documented under Section R313-15-1109; and

(iv) all areas outside of restricted areas which contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in Sections R313-15-401 through R313-15-406, or apply for approval for disposal under Section R313-15-1002; and

(d) records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.

(8) Criteria relating to use of financial tests and parent company guarantees for providing reasonable assurance of funds for decommissioning.

(a) To pass the financial test referred to in Subsection

R313-22-35(6)(b), the parent company shall meet one of the following criteria:

(i) The parent company shall have all of the following:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5;

(B) Net working capital and tangible net worth each at least six times the current decommissioning cost estimates, or prescribed amount if a certification is used;

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the current decommissioning cost estimates, or prescribed amount if a certification is used; or

(ii) The parent company shall have all of the following:

(A) A current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's;

(B) Tangible net worth at least six times the current decommissioning cost estimate, or prescribed amount if a certification is used;

(C) Tangible net worth of at least \$10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the current decommissioning cost estimates, or prescribed amount if certification is used.

(b) The parent company's independent certified public accountant shall have compared the data used by the parent company in the financial test, which is derived from the independently audited, year end financial statements for the latest fiscal year, with the amounts in such financial statement. In connection with that procedure the licensee shall inform the Executive Secretary within 90 days of any matters coming to the auditor's attention which cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test.

(c)(i) After the initial financial test, the parent company shall repeat the passage of the test within 90 days after the close of each succeeding fiscal year.

(ii) If the parent company no longer meets the requirements of Subsection R313-22-35(8)(a) the licensee shall send notice to the Executive Secretary of intent to establish alternative financial assurance as specified in Section R313-22-35. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year end financial data show that the parent company no longer meets the financial test requirements. The licensee shall provide alternate financial assurance within 120 days after the end of such fiscal year.

(d) The terms of a parent company guarantee which an applicant or licensee obtains shall provide that:

(i) The parent company guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the

licensee and the Executive Secretary. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the licensee and the Executive Secretary, as evidenced by the return receipts.

(ii) If the licensee fails to provide alternate financial assurance as specified in Section R313-22-35 within 90 days after receipt by the licensee and Executive Secretary of a notice of cancellation of the parent company guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the licensee.

(iii) The parent company guarantee and financial test provisions shall remain in effect until the Executive Secretary has terminated the license.

(iv) If a trust is established for decommissioning costs, the trustee and trust shall be acceptable to the Executive Secretary. An acceptable trustee includes an appropriate State or Federal Government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(9) Criteria relating to use of financial tests and self guarantees for providing reasonable assurance of funds for decommissioning.

(a) To pass the financial test referred to in Subsection R313-22-35(6)(b), a company shall meet all of the following criteria:

(i) Tangible net worth at least ten times the total current decommissioning cost estimate, or the current amount required if certification is used, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor;

(ii) Assets located in the United States amounting to at least 90 percent of total assets or at least ten times the total current decommissioning cost estimate, or the current amount required if certification is used, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor; and

(iii) A current rating for its most recent bond issuance of AAA, AA, or A as issued by Standard and Poor's, or Aaa, Aa, or A as issued by Moody's.

(b) To pass the financial test, a company shall meet all of the following additional requirements:

(i) The company shall have at least one class of equity securities registered under the Securities Exchange Act of 1934;

(ii) The company's independent certified public accountant shall have compared the data used by the company in the financial test which is derived from the independently audited, yearend financial statements for the latest fiscal year, with the amounts in such financial statement. In connection with that procedure, the licensee shall inform the Executive Secretary within 90 days of any matters coming to the attention of the auditor that cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test; and

(iii) After the initial financial test, the company shall



repeat passage of the test within 90 days after the close of each succeeding fiscal year.

(c) If the licensee no longer meets the requirements of Subsection R313-22-35(9)(a), the licensee shall send immediate notice to the Executive Secretary of its intent to establish alternate financial assurance as specified in Section R313-22-35 within 120 days of such notice.

(d) The terms of a self-guarantee which an applicant or licensee furnishes shall provide that:

(i) The guarantee will remain in force unless the licensee sends notice of cancellation by certified mail to the Executive Secretary. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by the Executive Secretary, as evidenced by the return receipt.

(ii) The licensee shall provide alternative financial assurance as specified in Section R313-22-35 within 90 days following receipt by the Executive Secretary of a notice of a cancellation of the guarantee.

(iii) The guarantee and financial test provisions shall remain in effect until the Executive Secretary has terminated the license or until another financial assurance method acceptable to the Executive Secretary has been put in effect by the licensee.

(iv) The licensee shall promptly forward to the Executive Secretary and the licensee's independent auditor all reports covering the latest fiscal year filed by the licensee with the Securities and Exchange Commission pursuant to the requirements of section 13 of the Securities and Exchange Act of 1934.

(v) If, at any time, the licensee's most recent bond issuance ceases to be rated in a category of "A" or above by either Standard and Poor's or Moody's, the licensee shall provide notice in writing of such fact to the Executive Secretary within 20 days after publication of the change by the rating service. If the licensee's most recent bond issuance ceases to be rated in any category of A or above by both Standard and Poor's and Moody's, the licensee no longer meets the requirements of Subsection R313-22-35(9)(a).

(vi) The applicant or licensee shall provide to the Executive Secretary a written guarantee, a written commitment by a corporate officer, which states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the Board, the licensee shall set up and fund a trust in the amount of the current cost estimates for decommissioning.

#### **R313-22-36. Expiration and Termination of Licenses and Decommissioning of Sites and Separate Buildings or Outdoor Areas.**

(1) A specific license expires at the end of the day on the expiration date stated in the license unless the licensee has filed an application for renewal under Section R313-22-37 no less than 30 days before the expiration date stated in the existing license. If an application for renewal has been filed at least 30 days prior to the expiration date stated in the existing license, the existing license expires at the end of the day on which the Executive Secretary makes a final determination to deny the renewal application or, if the determination states an expiration date, the

expiration date stated in the determination.

(2) A specific license revoked by the Executive Secretary expires at the end of the day on the date of the Executive Secretary's final determination to revoke the license, or on the expiration date stated in the determination, or as otherwise provided by an Order issued by the Executive Secretary.

(3) A specific license continues in effect, beyond the expiration date if necessary, with respect to possession of radioactive material until the Executive Secretary notifies the licensee in writing that the license is terminated. During this time, the licensee shall:

(a) limit actions involving radioactive material to those related to decommissioning; and

(b) continue to control entry to restricted areas until they are suitable for release so that there is not an undue hazard to public health and safety or the environment.

(4) Within 60 days of the occurrence of any of the following, a licensee shall provide notification to the Executive Secretary in writing of such occurrence, and either begin decommissioning its site, or any separate building or outdoor area that contains residual radioactivity so that the building or outdoor area is suitable for release so that there is not an undue hazard to public health and safety or the environment, or submit within 12 months of notification a decommissioning plan, if required by Subsection R313-22-36(7), and begin decommissioning upon approval of that plan if:

(a) the license has expired pursuant to Subsections R313-22-36(1) or (2); or

(b) the licensee has decided to permanently cease principal activities at the entire site or in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release because of an undue hazard to public health and safety or the environment; or

(c) no principal activities under the license have been conducted for a period of 24 months; or

(d) no principal activities have been conducted for a period of 24 months in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release because of an undue hazard to public health and safety or the environment.

(5) Coincident with the notification required by Subsection R313-22-36(4), the licensee shall maintain in effect all decommissioning financial assurances established by the licensee pursuant to Section R313-22-35 in conjunction with a license issuance or renewal or as required by Section R313-22-36. The amount of the financial assurance must be increased, or may be decreased, as appropriate, to cover the detailed cost estimate for decommissioning established pursuant to Subsection R313-22-36(7)(d)(v).

(a) A licensee who has not provided financial assurance to cover the detailed cost estimate submitted with the decommissioning plan shall do so on or before August 15, 1997.

(b) Following approval of the decommissioning plan, a licensee may reduce the amount of the financial assurance as

decommissioning proceeds and radiological contamination is reduced at the site with the approval of the Executive Secretary.

(6) The Executive Secretary may grant a request to extend the time periods established in Subsection R313-22-36(4) if the Executive Secretary determines that this relief is not detrimental to the public health and safety and is otherwise in the public interest. The request must be submitted no later than 30 days before notification pursuant to Subsection R313-22-36(4). The schedule for decommissioning set forth in Subsection R313-22-36(4) may not commence until the Executive Secretary has made a determination on the request.

(7)(a) A decommissioning plan shall be submitted if required by license condition or if the procedures and activities necessary to carry out decommissioning of the site or separate building or outdoor area have not been previously approved by the Executive Secretary and these procedures could increase potential health and safety impacts to workers or to the public, such as in any of the following cases:

(i) procedures would involve techniques not applied routinely during cleanup or maintenance operations;

(ii) workers would be entering areas not normally occupied where surface contamination and radiation levels are significantly higher than routinely encountered during operation;

(iii) procedures could result in significantly greater airborne concentrations of radioactive materials than are present during operation; or

(iv) procedures could result in significantly greater releases of radioactive material to the environment than those associated with operation.

(b) The Executive Secretary may approve an alternate schedule for submittal of a decommissioning plan required pursuant to Subsection R313-22-36(4) if the Executive Secretary determines that the alternative schedule is necessary to the effective conduct of decommissioning operations and presents no undue risk from radiation to the public health and safety and is otherwise in the public interest.

(c) Procedures such as those listed in Subsection R313-22-36(7)(a) with potential health and safety impacts may not be carried out prior to approval of the decommissioning plan.

(d) The proposed decommissioning plan for the site or separate building or outdoor area must include:

(i) a description of the conditions of the site or separate building or outdoor area sufficient to evaluate the acceptability of the plan;

(ii) a description of planned decommissioning activities;

(iii) a description of methods used to ensure protection of workers and the environment against radiation hazards during decommissioning;

(iv) a description of the planned final radiation survey; and

(v) an updated detailed cost estimate for decommissioning, comparison of that estimate with present funds set aside for decommissioning, and a plan for assuring the availability of adequate funds for completion of decommissioning.

(vi) For decommissioning plans calling for completion of

decommissioning later than 24 months after plan approval, the plan shall include a justification for the delay based on the criteria in Subsection R313-22-36(8).

(e) The proposed decommissioning plan will be approved by the Executive Secretary if the information therein demonstrates that the decommissioning will be completed as soon as practical and that the health and safety of workers and the public will be adequately protected.

(8)(a) Except as provided in Subsection R313-22-36(9), licensees shall complete decommissioning of the site or separate building or outdoor area as soon as practical but no later than 24 months following the initiation of decommissioning.

(b) Except as provided in Subsection R313-22-36(9), when decommissioning involves the entire site, the licensee shall request license termination as soon as practical but no later than 24 months following the initiation of decommissioning.

(9) The Executive Secretary may approve a request for an alternative schedule for completion of decommissioning of the site or separate building or outdoor area, and license termination if appropriate, if the Executive Secretary determines that the alternative is warranted by consideration of the following:

(a) whether it is technically feasible to complete decommissioning within the allotted 24-month period;

(b) whether sufficient waste disposal capacity is available to allow completion of decommissioning within the allotted 24-month period;

(c) whether a significant volume reduction in wastes requiring disposal will be achieved by allowing short-lived radionuclides to decay;

(d) whether a significant reduction in radiation exposure to workers can be achieved by allowing short-lived radionuclides to decay; and

(e) other site-specific factors which the Executive Secretary may consider appropriate on a case-by-case basis, such as the regulatory requirements of other government agencies, lawsuits, ground-water treatment activities, monitored natural ground-water restoration, actions that could result in more environmental harm than deferred cleanup, and other factors beyond the control of the licensee.

(10) As the final step in decommissioning, the licensee shall:

(a) certify the disposition of all licensed material, including accumulated wastes, by submitting a completed Form DRC-14 or equivalent information; and

(b) conduct a radiation survey of the premises where the licensed activities were carried out and submit a report of the results of this survey, unless the licensee demonstrates in some other manner that the premises are suitable for release in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406. The licensee shall, as appropriate:

(i) report levels of gamma radiation in units of millisieverts (microroentgen) per hour at one meter from surfaces, and report levels of radioactivity, including alpha and beta, in units of megabecquerels (disintegrations per minute or microcuries)

per 100 square centimeters--removable and fixed-- for surfaces, megabecquerels (microcuries) per milliliter for water, and becquerels (picocuries) per gram for solids such as soils or concrete; and

(ii) specify the survey instrument(s) used and certify that each instrument is properly calibrated and tested.

(11) Specific licenses, including expired licenses, will be terminated by written notice to the licensee when the Executive Secretary determines that:

(a) radioactive material has been properly disposed;

(b) reasonable effort has been made to eliminate residual radioactive contamination, if present; and

(c) documentation is provided to the Executive Secretary that:

(i) a radiation survey has been performed which demonstrates that the premises are suitable for release in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406; or

(ii) other information submitted by the licensee is sufficient to demonstrate that the premises are suitable for release in accordance with the criteria for decommissioning in Sections R313-15-401 through R313-15-406.

#### **R313-22-37. Renewal of Licenses.**

Application for renewal of a specific license shall be filed on a form prescribed by the Executive Secretary and in accordance with Section R313-22-32.

#### **R313-22-38. Amendment of Licenses at Request of Licensee.**

Applications for amendment of a license shall be filed in accordance with Section R313-22-32 and shall specify the respects in which the licensee desires the license to be amended and the grounds for the amendment.

#### **R313-22-39. Executive Secretary Action on Applications to Renew or Amend.**

In considering an application by a licensee to renew or amend the license, the Executive Secretary will use the criteria set forth in Sections R313-22-33, R313-22-50, and R313-22-75 and in Rules R313-25, R313-32, R313-34, R313-36, or R313-38, as applicable.

#### **R313-22-50. Special Requirements for Specific Licenses of Broad Scope.**

Authority to transfer possession or control by the manufacturer, processor, or producer of any equipment, device, commodity or other product containing byproduct material whose subsequent possession, use, transfer and disposal by all other persons who are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

(1) The different types of broad licenses are set forth

below:

(a) A "Type A specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of the radioactive material specified in the license, but not exceeding quantities specified in the license, for any authorized purpose. The quantities specified are usually in the multicurie range.

(b) A "Type B specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of radioactive material specified in Section R313-22-100 for any 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 Section R313-22-100, Column I. If two or more radionuclides are possessed thereunder, the possession limits are determined as follows: For each radionuclide, determine the ratio of the quantity possessed to the applicable quantity specified in Section R313-22-100, Column I, for that radionuclide. The sum of the ratios for the radionuclides possessed under the license shall not exceed unity.

(c) A "Type C specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of radioactive material specified in Section R313-22-100, for any 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 Section R313-22-100, Column II. If two or more radionuclides are possessed thereunder, the possession limits are determined as follows: For each radionuclide, determine the ratio of the quantity possessed to the applicable quantity specified in Section R313-22-100, Column II, for that radionuclide. The sum of the ratios for the radionuclides possessed under the license shall not exceed unity.

(2) An application for a Type A specific license of broad scope shall be approved if all of the following are complied with:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the applicant has engaged in a reasonable number of activities involving the use of radioactive material; and

(c) the applicant has established administrative controls and provisions relating to organization and management, procedures, recordkeeping, material control and accounting, and management review that are necessary to assure safe operations, including:

(i) the establishment of a radiation safety committee composed of such persons as a radiation safety officer, a representative of management, and persons trained and experienced in the safe use of radioactive material;

(ii) the appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters; and

(iii) the establishment of appropriate administrative procedures to assure:

(A) control of procurement and use of radioactive material,

(B) completion of safety evaluations of proposed uses of radioactive material which take into consideration such matters as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures, and

(C) review, approval, and recording by the radiation safety committee of safety evaluations of proposed uses prepared in accordance with Subsection R313-22-50(2)(c)(iii)(B) prior to use of the radioactive material.

(3) An application for a Type B specific license of broad scope shall be approved if all of the following are complied with:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the applicant has established administrative controls and provisions relating to organization and management, procedures, recordkeeping, material control and accounting, and management review that are necessary to assure safe operations, including:

(i) the appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters; and

(ii) the establishment of appropriate administrative procedures to assure:

(A) control of procurement and use of radioactive material,

(B) completion of safety evaluations of proposed uses of radioactive material which take into consideration such matters as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures, and

(C) review, approval, and recording by the radiation safety officer of safety evaluations of proposed uses prepared in accordance with Subsection R313-22-50(3)(b)(iii)(B) prior to use of the radioactive material.

(4) An application for a Type C specific license of broad scope shall be approved, if:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the applicant submits a statement that radioactive material will be used only by, or under the direct supervision of individuals, who have received:

(i) a college degree at the bachelor level, or equivalent training and experience, in the physical or biological sciences or in engineering; and

(ii) at least forty hours of training and experience in the safe handling of radioactive material, and in the characteristics of ionizing radiation, units of radiation dose and quantities, radiation detection instrumentation, and biological hazards of exposure to radiation appropriate to the type and forms of radioactive material to be used; and

(c) the applicant has established administrative controls and provisions relating to procurement of radioactive material, procedures, recordkeeping, material control and accounting, and management review necessary to assure safe operations.

(5) Specific licenses of broad scope are subject to the following conditions:

(a) unless specifically authorized by the Executive

Secretary, persons licensed pursuant to this section shall not:

(i) conduct tracer studies in the environment involving direct release of radioactive material;

(ii) receive, acquire, own, possess, use, or transfer devices containing 100,000 curies (3.7 PBq) or more of radioactive material in sealed sources used for irradiation of materials;

(iii) conduct activities for which a specific license issued by the Executive Secretary under Section R313-22-75, and Rules R313-25, R313-32 or R313-36 is required; or

(iv) add or cause the addition of radioactive material to a food, beverage, cosmetic, drug or other product designed for ingestion or inhalation by, or application to, a human being.

(b) Type A specific licenses of broad scope issued under Rule R313-22 shall be subject to the condition that radioactive material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety committee.

(c) Type B specific license of broad scope issued under Rule R313-22 shall be subject to the condition that radioactive material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety officer.

(d) Type C specific license of broad scope issued under Rule R313-22 shall be subject to the condition that radioactive material possessed under the license may only be used, by or under the direct supervision of, individuals who satisfy the requirements of Subsection R313-22-50(4).

**R313-22-75. Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices Which Contain Radioactive Material.**

(1) Licensing the introduction of radioactive material into products in exempt concentrations.

(a) In addition to the requirements set forth in Section R313-22-33, a specific license authorizing the introduction of radioactive material into a product or material owned by or in the possession of the licensee or another to be transferred to persons exempt under Subsection R313-19-13(2)(a) will be issued if:

(i) the applicant submits a description of the product or material into which the radioactive material will be introduced, intended use of the radioactive material and the product or material into which it is introduced, method of introduction, initial concentration of the radioactive material in the product or material, control methods to assure that no more than the specified concentration is introduced into the product or material, estimated time interval between introduction and transfer of the product or material, and estimated concentration of the radioactive material in the product or material at the time of transfer; and

(ii) the applicant provides reasonable assurance that the concentrations of radioactive material at the time of transfer will not exceed the concentrations in Section R313-19-70, that reconcentration of the radioactive material in concentrations exceeding those in Section R313-19-70 is not likely, that use of



lower concentrations is not feasible, and that the product or material is not likely to be incorporated in any food, beverage, cosmetic, drug or other commodity or product designed for ingestion or inhalation by, or application to a human being.

(b) Persons licensed under Subsection R313-22-75(1) shall file an annual report with the Executive Secretary which shall identify the type and quantity of products or materials into which radioactive material has been introduced during the reporting period; name and address of the person who owned or possessed the product and material, into which radioactive material has been introduced, at the time of introduction; the type and quantity of radionuclide introduced into the product or material; and the initial concentrations of the radionuclide in the product or material at time of transfer of the radioactive material by the licensee. If no transfers of radioactive material have been made pursuant to Subsection R313-22-75(1) during the reporting period, the report shall so indicate. The report shall cover the year ending June 30, and shall be filed within thirty days thereafter.

(2) Licensing the distribution of radioactive material in exempt quantities. Authority to transfer possession or control by the manufacturer, processor or producer of equipment, devices, commodities or other products containing byproduct material whose subsequent possession, use, transfer, and disposal by other persons who are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

(a) An application for a specific license to distribute naturally occurring and accelerator-produced radioactive material (NARM) to persons exempted from these rules pursuant to Subsection R313-19-13(2)(b) will be approved if:

(i) the radioactive material is not contained in a food, beverage, cosmetic, drug or other commodity designed for ingestion or inhalation by, or application to, a human being;

(ii) the radioactive material is in the form of processed chemical elements, compounds, or mixtures, tissue samples, bioassay samples, counting standards, plated or encapsulated sources, or similar substances, identified as radioactive and to be used for its radioactive properties, but is not incorporated into a manufactured or assembled commodity, product, or device intended for commercial distribution; and

(iii) the applicant submits copies of prototype labels and brochures and the Executive Secretary approves the labels and brochures;

(b) The license issued under Subsection R313-22-75(2)(a) is subject to the following conditions:

(i) No more than ten exempt quantities shall be sold or transferred in a single transaction. However, an exempt quantity may be composed of fractional parts of one or more of the exempt quantities provided the sum of the fractions shall not exceed unity.

(ii) Exempt quantities shall be separated and individually packaged. No more than ten packaged exempt quantities shall be contained in any outer package for transfer to persons exempt pursuant to Subsection R313-19-13(2)(b). The outer package shall

not allow the dose rate at the external surface of the package to exceed 0.5 millirem (5.0 uSv) per hour.

(iii) The immediate container of a quantity or separately packaged fractional quantity of radioactive material shall bear a durable, legible label which:

(A) identifies the radionuclide and the quantity of radioactivity; and

(B) bears the words "Radioactive Material."

(iv) In addition to the labeling information required by Subsection R313-22-75(2)(b)(iii), the label affixed to the immediate container, or an accompanying brochure, shall:

(A) state that the contents are exempt from Licensing State requirements;

(B) bear the words "Radioactive Material - Not for Human Use - Introduction into Foods, Beverages, Cosmetics, Drugs, or Medicinals, or into Products Manufactured for Commercial Distribution is Prohibited - Exempt Quantities Should Not Be Combined;" and

(C) set forth appropriate additional radiation safety precautions and instructions relating to the handling, use, storage and disposal of the radioactive material.

(c) Persons licensed under Subsection R313-22-75(2) shall maintain records identifying, by name and address, persons to whom radioactive material is transferred for use under Subsection R313-19-13(2)(b) or the equivalent regulations of a Licensing State, and stating the kinds and quantities of radioactive material transferred. An annual summary report stating the total quantity of radionuclides transferred under the specific license shall be filed with the Executive Secretary. Reports shall cover the year ending June 30, and shall be filed within thirty days thereafter. If no transfers of radioactive material have been made pursuant to Subsection R313-22-75(2) during the reporting period, the report shall so indicate.

(3) Licensing the incorporation of naturally occurring and accelerator-produced radioactive material (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 Subsection R313-19-13(2)(c)(iii) will be approved if the application satisfies requirements equivalent to those contained in 10 CFR 32.26, 2001 ed. The maximum quantity of radium-226 in each device shall not exceed 0.1 microcurie (3.7 kBq).

(4) Licensing the manufacture and distribution of devices to persons generally licensed under Subsection R313-21-22(4).

(a) An application for a specific license to manufacture or distribute devices containing radioactive material, excluding special nuclear material, to persons generally licensed under Subsection R313-21-22(4) or equivalent regulations of the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State will be approved if:

(i) the applicant satisfies the general requirements of Section R313-22-33;

(ii) the applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control,

labels, proposed uses, installation, servicing, leak testing, operating and safety instructions, and potential hazards of the device to provide reasonable assurance that:

(A) the device can be safely operated by persons not having training in radiological protection,

(B) under ordinary conditions of handling, storage and use of the device, the radioactive material contained in the device will not be released or inadvertently removed from the device, and it is unlikely that a person will receive in one year, a dose in excess of ten percent of the annual limits specified in Subsection R313-15-201(1), and

(C) under accident conditions, such as fire and explosion, associated with handling, storage and use of the device, it is unlikely that a person would receive an external radiation dose or dose commitment in excess of the following organ doses:

TABLE

Whole body; head and trunk; active blood-forming organs; gonads; or lens of eye	150.0 mSv (15 rems)
Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than one square centimeter	2.0 Sv (200 rems)
Other organs	500.0 mSv (50 rems); and

(iii) each device bears a durable, legible, clearly visible label or labels approved by the Executive Secretary, which contain in a clearly identified and separate statement:

(A) instructions and precautions necessary to assure safe installation, operation and servicing of the device; documents such as operating and service manuals may be identified in the label and used to provide this information,

(B) the requirement, or lack of requirement, for leak testing, or for testing an "on-off" mechanism and indicator, including the maximum time interval for testing, and the identification of radioactive material by radionuclide, quantity of radioactivity, and date of determination of the quantity, and

(C) the information called for in one of the following statements, as appropriate, in the same or substantially similar form:

(I) "The receipt, possession, use and transfer of this device, Model No. . . . . , Serial No. . . . . , are subject to a general license or the equivalent, and the regulations of the U.S. Nuclear Regulatory Commission or a state with which the U.S. Nuclear Regulatory Commission has entered into an agreement for the exercise of regulatory authority. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited." The label shall be printed with the words "CAUTION -

RADIOACTIVE MATERIAL" and the name of the manufacturer or distributor shall appear on the label. The model, serial number, and name of the manufacturer or distributor may be omitted from this label provided the information is elsewhere specified in labeling affixed to the device.

(II) "The receipt, possession, use and transfer of this device, Model No. ...., Serial No. ...., are subject to a general license or the equivalent, and the regulations of a Licensing State. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited." The label shall be printed with the words "CAUTION - RADIOACTIVE MATERIAL" and the name of the manufacturer or distributor shall appear on the label. The model, serial number, and name of the manufacturer or distributor may be omitted from this label provided the information is elsewhere specified in labeling affixed to the device.

(b) In the event the applicant desires that the device be required to be tested at intervals longer than six months, either for proper operation of the "on-off" mechanism and indicator, if any, or for leakage of radioactive material or for both, the applicant shall include in the application sufficient information to demonstrate that a longer interval is justified by performance characteristics of the device or similar devices and by design features which have a significant bearing on the probability or consequences of leakage of radioactive material from the device or failure of the "on-off" mechanism and indicator. In determining the acceptable interval for the test for leakage of radioactive material, the Executive Secretary will consider information which includes, but is not limited to:

- (i) primary containment, or source capsule;
- (ii) protection of primary containment;
- (iii) method of sealing containment;
- (iv) containment construction materials;
- (v) form of contained radioactive material;
- (vi) maximum temperature withstood during prototype tests;
- (vii) maximum pressure withstood during prototype tests;
- (viii) maximum quantity of contained radioactive material;
- (ix) radiotoxicity of contained radioactive material; and
- (x) operating experience with identical devices or similarly designed and constructed devices.

(c) In the event the applicant desires that the general licensee under Subsection R313-21-22(4), or under equivalent regulations of the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State be authorized to install the device, collect the sample to be analyzed by a specific licensee for leakage of radioactive material, service the device, test the "on-off" mechanism and indicator, or remove the device from installation, the applicant shall include in the application written instructions to be followed by the general licensee, estimated calendar quarter doses associated with this activity or activities, and basis for these estimates. The submitted information shall demonstrate that performance of this activity or activities by an individual untrained in radiological protection, in addition to other handling, storage, and use of devices under

the general license, is unlikely to cause that individual to receive a dose in excess of ten percent of the annual limits specified in Subsection R313-15-201(1).

(d) Persons licensed under Subsection R313-22-75(4) to distribute devices to generally licensed persons shall:

(i) furnish a copy of the general license contained in Subsection R313-21-22(4) to each person to whom the person directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license contained in Subsection R313-21-22(4);

(ii) furnish a copy of the general license contained in the U.S. Nuclear Regulatory Commission's, Agreement State's, or Licensing State's regulation equivalent to Subsection R313-21-22(4), or alternatively, furnish a copy of the general license contained in Subsection R313-21-22(4) to each person to whom he directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license of the U.S. Nuclear Regulatory Commission, the Agreement State or the Licensing State. If a copy of the general license in Subsection R313-21-22(4) is furnished to such a person, it shall be accompanied by a note explaining that the use of the device is regulated by the U.S. Nuclear Regulatory Commission, Agreement State or Licensing State under requirements substantially the same as those in Subsection R313-21-22(4);

(iii) report to the Executive Secretary all transfers of such devices to persons for use under the general license in Subsection R313-21-22(4). The reports shall identify the general licensee by name and address, an individual by name or position who may constitute a point of contact between the Executive Secretary and the general licensee, the type and model number of device transferred, and the quantity and type of radioactive material contained in the device. If one or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall include identification of each intermediate person by name, address, contact, and relationship to the intended user. If no transfers have been made to persons generally licensed under Subsection R313-21-22(4) during the reporting period, the report shall so indicate. The report shall cover each calendar quarter and shall be filed within thirty days thereafter;

(iv) furnish reports to other agencies.

(A) Report to the U.S. Nuclear Regulatory Commission all transfers of those devices to persons for use under the U.S. Nuclear Regulatory Commission general license in 10 CFR 31.5, 2001 ed.

(B) Report to the responsible State agency all transfers of devices manufactured and distributed pursuant to Subsection R313-22-75(4) for use under a general license in that State's regulations equivalent to Subsection R313-21-22(4).

(C) The reports shall identify each general licensee by name and address, an individual by name or position who may constitute a point of contact between the responsible agency and general licensee, the type and model of the device transferred, and the quantity and type of radioactive material contained in the device.

If one or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall include identification of each intermediate person by name, address, contact, and relationship to the intended user. The report shall be submitted within thirty days after the end of each calendar quarter in which a device is transferred to the generally licensed person.

(D) If transfers have not been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission.

(E) If transfers have not been made to general licensees within a particular state during the reporting period, this information shall be reported to the responsible state agency upon request of that agency; and

(v) keep records showing the name, address and the point of contact for each general licensee to whom the person directly or through an intermediate person transfers radioactive material in devices for use pursuant to the general license provided in Subsection R313-21-22(4), or equivalent regulations of the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State. The records shall show the date of each transfer, the radionuclide and the quantity of radioactivity in each device transferred, the identity of intermediate persons, and compliance with the report requirements of Subsection R313-22-75(4).

(5) Special requirements for the manufacture, assembly or repair of luminous safety devices for use in aircraft. An application for a specific license to manufacture, assemble or repair luminous safety devices containing tritium or promethium-147 for use in aircraft for distribution to persons generally licensed under Subsection R313-21-22(5) will be approved if:

(a) the applicant satisfies the general requirements of Section R313-22-33; and

(b) the applicant satisfies the requirements of 10 CFR 32.53 through 32.56 and 32.101, 2001 ed, or their equivalent.

(6) Special requirements for license to manufacture calibration sources containing americium-241, plutonium or radium-226 for distribution to persons generally licensed under Subsection R313-21-22(7). An application for a specific license to manufacture calibration and reference sources containing americium-241, plutonium or radium-226 to persons generally licensed under Subsection R313-21-22(7) will be approved if:

(a) the applicant satisfies the general requirements of Section R313-22-33; and

(b) the applicant satisfies the requirements of 10 CFR 32.57 through 32.59, 32.102 and 10 CFR 70.39, 2001 ed., or their equivalent.

(7) Manufacture and distribution of radioactive material for certain in vitro clinical or laboratory testing under general license. An application for a specific license to manufacture or distribute radioactive material for use under the general license of Subsection R313-21-22(9) will be approved if:

(a) the applicant satisfies the general requirements specified in Section R313-22-33;

(b) the radioactive material is to be prepared for distribution in prepackaged units of:

(i) iodine-125 in units not exceeding ten microcuries (370.0 kBq) each;

(ii) iodine-131 in units not exceeding ten microcuries (370.0 kBq) each;

(iii) carbon-14 in units not exceeding ten microcuries (370.0 kBq) each;

(iv) hydrogen-3 (tritium) in units not exceeding 50 microcuries (1.85 MBq) each;

(v) iron-59 in units not exceeding 20 microcuries (740.0 kBq) each;

(vi) cobalt-57 in units not exceeding ten microcuries (370.0 kBq) each;

(vii) selenium-75 in units not exceeding ten microcuries (370.0 kBq) each; or

(viii) mock iodine-125 in units not exceeding 0.05 microcurie (1.85 kBq) of iodine-129 and 0.005 microcurie (185.0 Bq) of americium-241 each;

(c) prepackaged units bear a durable, clearly visible label:

(i) identifying the radioactive contents as to chemical form and radionuclide, and indicating that the amount of radioactivity does not exceed ten microcuries (370.0 kBq) of iodine-125, iodine-131, carbon-14, cobalt-57, or selenium-75; 50 microcuries (1.85 MBq) of hydrogen-3 (tritium); 20 microcuries (740.0 kBq) of iron-59; or Mock Iodine-125 in units not exceeding 0.05 microcuries (1.85 kBq) of iodine-129 and 0.005 microcurie (185.0 Bq) of americium-241 each; and

(ii) displaying the radiation caution symbol described in Section R313-15-901 and the words, "CAUTION, RADIOACTIVE MATERIAL", and "Not for Internal or External Use in Humans or Animals";

(d) one of the following statements, as appropriate, or a substantially similar statement which contains the information called for in one of the following statements, appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure which accompanies the package:

(i) "This radioactive material shall be received, acquired, possessed and used only by physicians, veterinarians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the U.S. Nuclear Regulatory Commission has entered into an agreement for the exercise of regulatory authority.

.....  
Name of Manufacturer"

(ii) "This radioactive material shall be received, acquired, possessed and used only by physicians, veterinarians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or

animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of a Licensing State.

.....  
Name of Manufacturer"

(e) the label affixed to the unit, or the leaflet or brochure which accompanies the package, contains adequate information as to the precautions to be observed in handling and storing radioactive material. In the case of the Mock Iodine-125 reference or calibration source, the information accompanying the source shall also contain directions to the licensee regarding the waste disposal requirements set out in Section R313-15-1001.

(8) Licensing the manufacture and distribution of ice detection devices. An application for a specific license to manufacture and distribute ice detection devices to persons generally licensed under Subsection R313-21-22(10) will be approved if:

(a) the applicant satisfies the general requirements of Section R313-22-33; and

(b) the criteria of 10 CFR 32.61, 32.62, 32.103, 2001 ed. are met.

(9) Manufacture and distribution of radiopharmaceuticals containing radioactive material for medical use under group licenses.

(a) An application for a specific license to manufacture and distribute radiopharmaceuticals containing radioactive material for use by persons licensed pursuant to Rule R313-32 will be approved if:

(i) the applicant satisfies the general requirements specified in Section R313-22-33;

(ii) the applicant submits evidence that the applicant is at least one of the following:

(A) registered or licensed with the U.S. Food and Drug Administration (FDA) as a drug manufacturer;

(B) registered or licensed with a state agency as a drug manufacturer;

(C) licensed as a pharmacy by a State Board of Pharmacy; or

(D) operating as a nuclear pharmacy within a medical institution.

(iii) the applicant submits information on the radionuclide; the chemical and physical form; the maximum activity per vial, syringe, generator, or other container of the radioactive drug; and the shielding provided by the packaging to show it is appropriate for the safe handling and storage of the radioactive drugs by medical use licensees; and

(iv) the applicant satisfies the following labeling requirements:

(A) A label is affixed to each transport radiation shield, whether it is constructed of lead, glass, plastic, or other material, of a radioactive drug to be transferred for commercial distribution. The label must include the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL"; the name of the radioactive drug or its abbreviation;



and the quantity of radioactivity at a specified date and time. For radioactive drugs with a half life greater than 100 days, the time may be omitted.

(B) A label is affixed to each syringe, vial, or other container used to hold a radioactive drug to be transferred for commercial distribution. The label must include the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL" and an identifier that ensures that the syringe, vial, or other container can be correlated with the information on the transport radiation shield label.

(b) A licensee described by Subsections R313-22-75(9)(a)(ii)(C) or (D):

(i) May prepare radioactive drugs for medical use, as defined in Section R313-32-2, provided that the radioactive drug is prepared by either an authorized nuclear pharmacist, as specified in Subsections R313-22-75(9)(b)(ii) and (iii), or an individual under the supervision of an authorized nuclear pharmacist as specified in Section R313-32-25.

(ii) May allow a pharmacist to work as an authorized nuclear pharmacist if:

(A) this individual qualifies as an authorized nuclear pharmacist as defined in Section R313-32-2;

(B) this individual meets the requirements specified in Subsection R313-32-980(2) and Section R313-32-972 and the licensee has received an approved license amendment identifying this individual as an authorized nuclear pharmacist; or

(C) this individual is designated as an authorized nuclear pharmacist in accordance with Subsection R313-22-75(9)(b)(iii).

(iii) The actions authorized in Subsections R313-22-75(9)(b)(i) and (ii) are permitted in spite of more restrictive language in license conditions.

(iv) May designate a pharmacist, as defined in Section R313-32-2, as an authorized nuclear pharmacist if the individual is identified as of January 1, 1997 as an "authorized user" on a nuclear pharmacy license issued by the Executive Secretary under Subsection R313-22-75(9).

(v) Shall provide to the Executive Secretary a copy of each individual's certification by the Board of Pharmaceutical Specialties, the U.S. Nuclear Regulatory Commission or Agreement State license, or the permit issued by a licensee of broad scope, and a copy of the state pharmacy licensure or registration, no later than 30 days after the date that the licensee allows, pursuant to Subsections R313-22-75(9)(b)(ii)(A) and (B), the individual to work as an authorized nuclear pharmacist.

(c) A licensee shall possess and use instrumentation to measure the radioactivity of radioactive drugs. The licensee shall have procedures for use of the instrumentation. The licensee shall measure, by direct measurement or by combination of measurements and calculations, the amount of radioactivity in dosages of alpha-, beta-, or photon-emitting radioactive drugs prior to transfer for commercial distribution. In addition, the licensee shall:

(i) perform tests before initial use, periodically, and following repair, on each instrument for accuracy, linearity, and geometry dependence, as appropriate for the use of the instrument;

and make adjustments when necessary; and

(ii) check each instrument for constancy and proper operation at the beginning of each day of use.

(d) Nothing in Subsection R313-22-75(9) relieves the licensee from complying with applicable FDA, or Federal, and State requirements governing radioactive drugs.

(10) Manufacture and distribution of sources or devices containing radioactive material for medical use. An application for a specific license to manufacture and distribute sources and devices containing radioactive material to persons licensed pursuant to Section R313-32-18 for use as a calibration or reference source or for the uses listed in Sections R313-32-400 and R313-32-500 will be approved if:

(a) the applicant satisfies the general requirements in Section R313-22-33;

(b) the applicant submits sufficient information regarding each type of source or device pertinent to an evaluation of its radiation safety, including:

(i) the radioactive material contained, its chemical and physical form and amount,

(ii) details of design and construction of the source or device,

(iii) procedures for, and results of, prototype tests to demonstrate that the source or device will maintain its integrity under stresses likely to be encountered in normal use and accidents,

(iv) for devices containing radioactive material, the radiation profile of a prototype device,

(v) details of quality control procedures to assure that production sources and devices meet the standards of the design and prototype tests,

(vi) procedures and standards for calibrating sources and devices,

(vii) legend and methods for labeling sources and devices as to their radioactive content, and

(viii) instructions for handling and storing the source or device from the radiation safety standpoint, these instructions are to be included on a durable label attached to the source or device or attached to a permanent storage container for the source or device; provided that instructions which are too lengthy for a label may be summarized on the label and printed in detail on a brochure which is referenced on the label;

(c) the label affixed to the source or device, or to the permanent storage container for the source or device, contains information on the radionuclide, quantity and date of assay, and a statement that the source or device is licensed by the Executive Secretary for distribution to persons licensed pursuant to Sections R313-32-18, R313-32-400, and R313-32-500 or under equivalent regulations of the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State; provided that labeling for sources which do not require long term storage may be on a leaflet or brochure which accompanies the source;

(d) in the event the applicant desires that the source or device be required to be tested for leakage of radioactive material

at intervals longer than six months, the applicant shall include in the application sufficient information to demonstrate that a longer interval is justified by performance characteristics of the source or device or similar sources or devices and by design features that have a significant bearing on the probability or consequences of leakage of radioactive material from the source; and

(e) in determining the acceptable interval for test of leakage of radioactive material, the Executive Secretary shall consider information that includes, but is not limited to:

- (i) primary containment or source capsule,
- (ii) protection of primary containment,
- (iii) method of sealing containment,
- (iv) containment construction materials,
- (v) form of contained radioactive material,
- (vi) maximum temperature withstood during prototype tests,
- (vii) maximum pressure withstood during prototype tests,
- (viii) maximum quantity of contained radioactive material,
- (ix) radiotoxicity of contained radioactive material, and
- (x) operating experience with identical sources or devices or similarly designed and constructed sources or devices.

(11) Requirements for license to manufacture and distribute industrial products containing depleted uranium for mass-volume applications.

(a) An application for a specific license to manufacture industrial products and devices containing depleted uranium for use pursuant to Subsection R313-21-21(5) or equivalent regulations of the U.S. Nuclear Regulatory Commission or an Agreement State will be approved if:

(i) the applicant satisfies the general requirements specified in Section R313-22-33;

(ii) the applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling or marking, proposed uses and potential hazards of the industrial product or device to provide reasonable assurance that possession, use or transfer of the depleted uranium in the product or device is not likely to cause an individual to receive a radiation dose in excess of ten percent of the annual limits specified in Subsection R313-15-201(1); and

(iii) the applicant submits sufficient information regarding the industrial product or device and the presence of depleted uranium for a mass-volume application in the product or device to provide reasonable assurance that unique benefits will accrue to the public because of the usefulness of the product or device.

(b) In the case of an industrial product or device whose unique benefits are questionable, the Executive Secretary will approve an application for a specific license under Subsection R313-22-75(11) only if the product or device is found to combine a high degree of utility and low probability of uncontrolled disposal and dispersal of significant quantities of depleted uranium into the environment.

(c) The Executive Secretary may deny an application for a specific license under Subsection R313-22-75(11) if the end use of the industrial product or device cannot be reasonably foreseen.

(d) Persons licensed pursuant to Subsection R313-22-75(11) (a)

shall:

(i) maintain the level of quality control required by the license in the manufacture of the industrial product or device, and in the installation of the depleted uranium into the product or device;

(ii) label or mark each unit to:

(A) identify the manufacturer of the product or device and the number of the license under which the product or device was manufactured, the fact that the product or device contains depleted uranium, and the quantity of depleted uranium in each product or device; and

(B) state that the receipt, possession, use and transfer of the product or device are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or an Agreement State;

(iii) assure that the uranium before being installed in each product or device has been impressed with the following legend clearly legible through a plating or other covering: "Depleted Uranium";

(iv) furnish to each person to whom depleted uranium in a product or device is transferred for use pursuant to the general license contained in Subsection R313-21-21(5) or its equivalent:

(A) a copy of the general license contained in Subsection R313-21-21(5) and a copy of form DRC-12; or

(B) a copy of the general license contained in the U.S. Nuclear Regulatory Commission's or Agreement State's regulation equivalent to Subsection R313-21-21(5) and a copy of the U.S. Nuclear Regulatory Commission's or Agreement State's certificate, or alternatively, furnish a copy of the general license contained in Subsection R313-21-21(5) and a copy of form DRC-12 with a note explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or an Agreement State under requirements substantially the same as those in Subsection R313-21-21(5);

(v) report to the Executive Secretary all transfers of industrial products or devices to persons for use under the general license in Subsection R313-21-21(5). The report shall identify each general licensee by name and address, an individual by name or position who may constitute a point of contact between the Executive Secretary and the general licensee, the type and model number of device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within thirty days after the end of the calendar quarter in which the product or device is transferred to the generally licensed person. If no transfers have been made to persons generally licensed under Subsection R313-21-21(5) during the reporting period, the report shall so indicate;

(vi) provide certain other reports as follows:

(A) report to the U.S. Nuclear Regulatory Commission all transfers of industrial products or devices to persons for use under the U.S. Nuclear Regulatory Commission general license in 10 CFR 40.25, 2001 ed.;

(B) report to the responsible state agency all transfers of devices manufactured and distributed pursuant to Subsection R313-

22-75(11) for use under a general license in that state's regulations equivalent to Subsection R313-21-21(5),

(C) reports shall identify each general licensee by name and address, an individual by name or position who may constitute a point of contact between the agency and the general licensee, the type and model number of the device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within thirty days after the end of each calendar quarter in which a product or device is transferred to the generally licensed person,

(D) if no transfers have been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission, and

(E) if no transfers have been made to general licensees within a particular Agreement State during the reporting period, this information shall be reported to the responsible Agreement State agency upon the request of that agency; and

(vii) records shall be kept showing the name, address and point of contact for each general licensee to whom the person transfers depleted uranium in industrial products or devices for use pursuant to the general license provided in Subsection R313-21-21(5) or equivalent regulations of the U.S. Nuclear Regulatory Commission or an Agreement State. The records shall be maintained for a period of two years and shall show the date of each transfer, the quantity of depleted uranium in the product or device transferred, and compliance with the report requirements of Subsection R313-22-75(11).

**R313-22-90. Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release. Refer to Subsection R313-22-32(8).**

TABLE

Radioactive Material(1)	Release Fraction	Quantity (curies)
Actinium-228	0.001	4,000
Americium-241	.001	2
Americium-242	.001	2
Americium-243	.001	2
Antimony-124	.01	4,000
Antimony-126	.01	6,000
Barium-133	.01	10,000
Barium-140	.01	30,000
Bismuth-207	.01	5,000
Bismuth-210	.01	600
Cadmium-109	.01	1,000
Cadmium-113	.01	80
Calcium-45	.01	20,000
Californium-252 (20 mg)	.001	9
Carbon-14	.01	50,000

	Non CO	
Cerium-141	.01	10,000
Cerium-144	.01	300
Cesium-134	.01	2,000
Cesium-137	.01	3,000
Chlorine-36	.5	100
Chromium-51	.01	300,000
Cobalt-60	.001	5,000
Copper-64	.01	200,000
Curium-242	.001	60
Curium-243	.001	3
Curium-244	.001	4
Curium-245	.001	2
Europium-152	.01	500
Europium-154	.01	400
Europium-155	.01	3,000
Germanium-68	.01	2,000
Gadolinium-153	.01	5,000
Gold-198	.01	30,000
Hafnium-172	.01	400
Hafnium-181	.01	7,000
Holmium-166m	.01	100
Hydrogen-3	.5	20,000
Iodine-125	.5	10
Iodine-131	.5	10
Indium-114m	.01	1,000
Iridium-192	.001	40,000
Iron-55	.01	40,000
Iron-59	.01	7,000
Krypton-85	1.0	6,000,000
Lead-210	.01	8
Manganese-56	.01	60,000
Mercury-203	.01	10,000
Molybdenum-99	.01	30,000
Neptunium-237	.001	2
Nickel-63	.01	20,000
Niobium-94	.01	300
Phosphorus-32	.5	100
Phosphorus-33	.5	1,000
Polonium-210	.01	10
Potassium-42	.01	9,000
Promethium-145	.01	4,000
Promethium-147	.01	4,000
Ruthenium-106	.01	200
Samarium-151	.01	4,000
Scandium-46	.01	3,000
Selenium-75	.01	10,000
Silver-110m	.01	1,000
Sodium-22	.01	9,000
Sodium-24	.01	10,000
Strontium-89	.01	3,000
Strontium-90	.01	90
Sulfur-35	.5	900
Technetium-99	.01	10,000

Technetium-99m	.01	400,000
Tellurium-127m	.01	5,000
Tellurium-129m	.01	5,000
Terbium-160	.01	4,000
Thulium-170	.01	4,000
Tin-113	.01	10,000
Tin-123	.01	3,000
Tin-126	.01	1,000
Titanium-44	.01	100
Vanadium-48	.01	7,000
Xenon-133	1.0	900,000
Yttrium-91	.01	2,000
Zinc-65	.01	5,000
Zirconium-93	.01	400
Zirconium-95	.01	5,000
Any other beta-gamma emitter	.01	10,000
Mixed fission products	.01	1,000
Mixed corrosion products	.01	10,000
Contaminated equipment, beta-gamma	.001	10,000
Irradiated material, any form other than solid noncombustible	.01	1,000
Irradiated material, solid noncombustible	.001	10,000
Mixed radioactive waste, beta-gamma	.01	1,000
Packaged mixed waste, beta-gamma(2)	.001	10,000
Any other alpha emitter	.001	2
Contaminated equipment, alpha	.0001	20
Packaged waste, alpha(2)	.0001	20
Combinations of radioactive materials listed above(1)	-----	-----

(1) For combinations of radioactive materials, consideration of the need for an emergency plan is required if the sum of the ratios of the quantity of each radioactive material authorized to the quantity listed for that material in Section R313-22-90 exceeds one.

(2) Waste packaged in Type B containers does not require an emergency plan.

**R313-22-100. Limits for Broad Licenses. Refer to Section R313-22-50.**

TABLE

RADIOACTIVE MATERIAL	COLUMN I	COLUMN II CURIES
Antimony-122	1	0.01
Antimony-124	1	0.01
Antimony-125	1	0.01
Arsenic-73	10	0.1
Arsenic-74	1	0.01
Arsenic-76	1	0.01

Arsenic-77	10	0.1
Barium-131	10	0.1
Barium-140	1	0.01
Beryllium-7	10	0.1
Bismuth-210	0.1	0.001
Bromine-82	10	0.1
Cadmium-109	1	0.01
Cadmium-115m	1	0.01
Cadmium-115	10	0.1
Calcium-45	1	0.01
Calcium-47	10	0.1
Carbon-14	100	1
Cerium-141	10	0.1
Cerium-143	10	0.1
Cerium-144	0.1	0.001
Cesium-131	100	1
Cesium-134m	100	1
Cesium-134	0.1	0.001
Cesium-135	1	0.01
Cesium-136	10	0.1
Cesium-137	0.1	0.001
Chlorine-36	1	0.01
Chlorine-38	100	1
Chromium-51	100	1
Cobalt-57	10	0.1
Cobalt-58m	100	1
Cobalt-58	1	0.01
Cobalt-60	0.1	0.001
Copper-64	10	0.1
Dysprosium-165	100	1
Dysprosium-166	10	0.1
Erbium-169	10	0.1
Erbium-171	10	0.1
Europium-152 (9.2h)	10	0.1
Europium-152 (13y)	0.1	0.001
Europium-154	0.1	0.001
Europium-155	1	0.01
Fluorine-18	100	1
Gadolinium-153	1	0.01
Gadolinium-159	10	0.1
Gallium-72	10	0.1
Germanium-71	100	1
Gold-198	10	0.1
Gold-199	10	0.1
Hafnium-181	1	0.01
Holmium-166	10	0.1
Hydrogen-3	100	1
Indium-113m	100	1
Indium-114m	1	0.01
Indium-115m	100	1
Indium-115	1	0.01
Iodine-125	0.1	0.001
Iodine-126	0.1	0.001
Iodine-129	0.1	0.01



Iodine-131	0.1	0.001
Iodine-132	10	0.1
Iodine-133	1	0.01
Iodine-134	10	0.1
Iodine-135	1	0.01
Iridium-192	1	0.01
Iridium-194	10	0.1
Iron-55	10	0.1
Iron-59	1	0.01
Krypton-85	100	1
Krypton-87	10	0.1
Lanthanum-140	1	0.01
Lutetium-177	10	0.1
Manganese-52	1	0.01
Manganese-54	1	0.01
Manganese-56	10	0.1
Mercury-197m	10	0.1
Mercury-197	10	0.1
Mercury-203	1	0.01
Molybdenum-99	10	0.1
Neodymium-147	10	0.1
Neodymium-149	10	0.1
Nickel-59	10	0.1
Nickel-63	1	0.01
Nickel-65	10	0.1
Niobium-93m	1	0.01
Niobium-95	1	0.01
Niobium-97	100	1
Osmium-185	1	0.01
Osmium-191m	100	1
Osmium-191	10	0.1
Osmium-193	10	0.1
Palladium-103	10	0.1
Palladium-109	10	0.1
Phosphorus-32	1	0.01
Platinum-191	10	0.1
Platinum-193m	100	1
Platinum-193	10	0.1
Platinum-197m	100	1
Platinum-197	10	0.1
Polonium-210	0.01	0.0001
Potassium-42	1	0.01
Praseodymium-142	10	0.1
Praseodymium-143	10	0.1
Promethium-147	1	0.01
Promethium-149	10	0.1
Radium-226	0.01	0.0001
Rhenium-186	10	0.1
Rhenium-188	10	0.1
Rhodium-103m	1,000	10
Rhodium-105	10	0.1
Rubidium-86	1	0.01
Rubidium-87	1	0.01
Ruthenium-97	100	1

Ruthenium-103	1	0.01
Ruthenium-105	10	0.1
Ruthenium-106	0.1	0.001
Samarium-151	1	0.01
Samarium-153	10	0.1
Scandium-46	1	0.01
Scandium-47	10	0.1
Scandium-48	1	0.01
Selenium-75	1	0.01
Silicon-31	10	0.1
Silver-105	1	0.01
Silver-110m	0.1	0.001
Silver-111	10	0.1
Sodium-22	0.1	0.001
Sodium-24	1	0.01
Strontium-85m	1,000	10
Strontium-85	1	0.01
Strontium-89	1	0.01
Strontium-90	0.01	0.0001
Strontium-91	10	0.1
Strontium-92	10	0.1
Sulphur-35	10	0.1
Tantalum-182	1	0.01
Technetium-96	10	0.1
Technetium-97m	10	0.1
Technetium-97	10	0.1
Technetium-99m	100	1
Technetium-99	1	0.01
Tellurium-125m	1	0.01
Tellurium-127m	1	0.01
Tellurium-127	10	0.1
Tellurium-129m	1	0.01
Tellurium-129	100	1
Tellurium-131m	10	0.1
Tellurium-132	1	0.01
Terbium-160	1	0.01
Thallium-200	10	0.1
Thallium-201	10	0.1
Thallium-202	10	0.1
Thallium-204	1	0.01
Thulium-170	1	0.01
Thulium-171	1	0.01
Tin-113	1	0.01
Tin-125	1	0.01
Tungsten-181	1	0.01
Tungsten-185	1	0.01
Tungsten-187	10	0.1
Vanadium-48	1	0.01
Xenon-131m	1,000	10
Xenon-133	100	1
Xenon-135	100	1
Ytterbium-175	10	0.1
Yttrium-90	1	0.01
Yttrium-91	1	0.01

Yttrium-92	10	0.1
Yttrium-93	1	0.01
Zinc-65	1	0.01
Zinc-69m	10	0.1
Zinc-69	100	1
Zirconium-93	1	0.01
Zirconium-95	1	0.01
Zirconium-97	1	0.01
Any radioactive material other than source material, special nuclear material, or alpha-emitting radioactive material not listed above	0.1	0.001

**R313-22-210. Registration of Product Information.**

Licensees who manufacture or initially distribute a sealed source or device containing a sealed source whose product is intended for use under a specific license or general license are deemed to have provided reasonable assurance that the radiation safety properties of the source or device are adequate to protect health and minimize danger to life and the environment if the sealed source or device has been evaluated in accordance with 10 CFR 32.210, 2001 ed. or equivalent regulations of an Agreement State.

**KEY: specific licenses, decommissioning, broad scope, radioactive material**

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Notice of Continuation May 1, 1997

19-3-108

## **UTAH RADIATION CONTROL RULES**

### **CHAPTER R313-25**

#### **LICENSE REQUIREMENTS FOR LAND DISPOSAL OF RADIOACTIVE WASTE GENERAL PROVISIONS**

<b>SECTION</b>	<b>TITLE</b>	<b>PAGE</b>
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**R313. Environmental Quality, Radiation Control.**

**R313-25. License Requirements for Land Disposal of Radioactive Waste - General Provisions.**

**R313-25-1. Purpose and Scope.**

The rules in this chapter establish procedures, criteria, and terms and conditions upon which the Department issues licenses for the land disposal of wastes received from other persons. The requirements of R313-25 are in addition to, and not in substitution for, other applicable requirements of these rules.

**R313-25-2. Definitions.**

As used in R313-25, the following definitions apply:

"Active maintenance" means significant activity needed during the period of institutional control to maintain a reasonable assurance that the performance objectives in R313-25-19 and R313-25-20 are met. Active maintenance may include the pumping and treatment of water from a disposal unit, the replacement of a disposal unit cover, or other episodic or continuous measures. Active maintenance does not include custodial activities like repair of fencing, repair or replacement of monitoring equipment, revegetation, minor additions to soil cover, minor repair of disposal unit covers, and general disposal site upkeep.

"Buffer zone" means 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.

"Commencement of construction" means clearing of land, excavation, or other substantial action that could adversely affect the environment of a land disposal facility. The term does not mean 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.

"Custodial agency" means an agency of the government designated to act on behalf of the government owner of the disposal site.

"Disposal" means the isolation of wastes from the biosphere by placing them in a land disposal facility.

"Disposal site" means that portion of a land disposal facility which is used for disposal of waste. It consists of disposal units and a buffer zone.

"Disposal unit" means a discrete portion of the disposal site into which waste is placed for disposal. For near-surface disposal, the disposal unit may be a trench.

"Engineered barrier" means a man-made structure or device intended to improve the land disposal facility's performance under R313-25.

"Hydrogeologic unit" means a soil or rock unit or zone that has a distinct influence on the storage or movement of ground water.

"Inadvertent intruder" means a person who may enter the disposal site after closure and engage in activities unrelated to post closure management, such as agriculture, dwelling

construction, or other pursuits which could, by disturbing the site, expose individuals to radiation.

"Intruder barrier" means a 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 performance objectives set forth in R313-25, or engineered structures that provide equivalent protection to the inadvertent intruder.

"Land disposal facility" means the land, buildings and structures, and equipment which are intended to be used for the disposal of radioactive waste.

"Monitoring" means observing and making measurements to provide data to evaluate the performance and characteristics of the disposal site.

"Near-surface disposal facility" means a land disposal facility in which waste is disposed of within approximately the upper 30 meters of the earth's surface.

"Site closure and stabilization" means those 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" means structural stability.

"Surveillance" means monitoring and observation of the disposal site to detect needs for maintenance or custodial care, to observe evidence of intrusion, and to ascertain compliance with other license and regulatory requirements.

"Treatment" means the stabilization or the reduction in volume of waste by a chemical or a physical process.

"Waste" means those low-level radioactive wastes as defined in Section 19-3-102 that are acceptable for disposal in a land disposal facility. For the purposes of this definition, low-level waste has the same meaning as it does in the Low-Level Radioactive Waste Policy Act, Pub.L. 96-573, 94 Stat. 3347; thus, the term denotes radioactive waste not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, waste does not mean byproduct material as defined in 42 U.S.C. 2011(e)(2) of the Atomic Energy Act, uranium or thorium tailings and waste.

### **R313-25-3. Siting Criteria and Pre-licensing Plan Approval for Commercial Radioactive Waste Disposal Facilities.**

(1) Persons proposing to construct or operate commercial radioactive waste disposal facilities, including waste incinerators, shall obtain a plan approval from the Executive Secretary before applying for a license. Plans shall meet the siting criteria and plan approval requirements of Section R313-25-3 and Section 19-3-105.

(2) The siting criteria and plan approval requirements in R313-25-3 apply to prelicensing plan approval applications.

(3) Treatment and disposal facilities, including commercial radioactive waste incinerators, shall not be located:

(a) within or underlain by:

(i) national, state, and county parks, monuments, and recreation areas; designated wilderness and wilderness study areas;

wild and scenic river areas;

(ii) ecologically and scientifically significant natural areas, including wildlife management areas and habitats for listed or proposed endangered species as designated by federal law;

(iii) 100 year floodplains;

(iv) areas 200 feet from Holocene faults;

(v) underground mines, salt domes and salt beds;

(vi) dam failure flood areas;

(vii) areas subject to landslide, mud flow, or other earth movement, unless adverse impacts can be mitigated;

(viii) farmlands classified or evaluated as "prime", "unique", or of "statewide importance" by the U.S. Department of Agricultural Soil Conservation Service under the Prime Farmland Protection Act;

(ix) areas five miles of existing permanent dwellings, residential areas, and other habitable structures, including schools, churches, and historic structures;

(x) areas five miles of surface waters including intermittent streams, perennial streams, rivers, lakes, reservoirs, and wetlands;

(xi) areas 100 feet of uranium mill tailings;

(xii) areas 1000 feet of archeological sites to which adverse impacts cannot reasonably be mitigated;

(xiii) recharge zones of aquifers containing ground water which has a total dissolved solids content of less than 10,000 mg/l; or

(xiv) drinking water source protection areas designated by the State Drinking Water Committee;

(b) in areas:

(i) above or underlain by aquifers containing ground water which has a total dissolved solids content of less than 500 mg/l and which aquifers do not exceed state ground water standards for pollutants;

(ii) above or underlain by aquifers containing ground water which has a total dissolved solids content between 3000 and 10,000 mg/l when the distance from the surface to the ground water is less than 100 ft.;

(iii) areas, such as areas of extensive withdrawal of water, gas, or oil;

(iv) above or underlain by weak and unstable soils, including soils that lose their ability to support foundations as a result of hydrocompaction, expansion, or shrinkage;

(v) above or underlain by karst terrains.

(4) Incinerators associated with land disposal facilities may not be located above aquifers containing ground water which has a total dissolved solids content below 3000 mg/l. Incinerators not associated with ground disposal facilities shall not be located above aquifers containing ground water which has a total dissolved solids content below 500 mg/l.

(5) Facilities may not be located within a distance to existing drinking water wells and watersheds for public water supplies of one year ground water travel time plus 1000 feet for incinerators and of five years ground water travel time plus 1000 feet for land disposal facilities.

(6) The plan approval application shall include hydraulic conductivity and other information necessary to estimate adequately the ground water travel distance.

(7) The plan approval application shall include the results of studies adequate to identify the presence of ground water aquifers in the area of the proposed site and to assess the quality of the ground water of all aquifers identified in the area of the proposed site.

(8) The Executive Secretary may require the applicant to conduct vadose zone or other near surface monitoring.

(9) Emergency response and safety.

(a) The plan approval application shall demonstrate the availability and adequacy of emergency services, including medical and fire response. The application shall provide evidence that the applicant has coordinated emergency response plans with local and regional emergency response resources.

(b) The plan approval application shall include plans for responding to emergencies both at the site and those involving the transport of wastes within the state. Details of the proposed emergency response plan shall be given in the plan approval application and will be stipulated in the plan approval and radioactive materials license.

(c) The plan approval application shall show proposed routes for transportation of radioactive wastes within the state. The Executive Secretary will not approve plans that propose radioactive waste transportation routes over roads or bridges where weight restrictions would be exceeded. The Executive Secretary will not approve plans that pose adverse impact or risk of harm to inhabited areas. The plan approval application shall address risks to inhabited areas, including both residential and non-residential areas; the width, condition, and types of roads to be used; roadside development on proposed routes; seasonal and climatic factors which may affect safety; alternate emergency access to the facility; the type, size, and configuration of vehicles proposed to haul wastes; transportation restrictions on proposed routes; and the transportation means and routes available to evacuate the population at risk in the event of accidents, including spills and fires.

(10) Siting Authority. The Executive Secretary recognizes that Titles 10 and 17 of the Utah Code give cities and counties authority for local use planning and zoning. Nothing in R313-25-3 precludes cities and counties from establishing additional requirements as provided by applicable state and federal law.

#### **R313-25-4. License Required.**

(1) Persons shall not receive, possess, or dispose of waste at a land disposal facility unless authorized by a license issued by the Executive Secretary pursuant to R313-25 and R313-22.

(2) Persons shall file an application with the Executive Secretary pursuant to R313-22-32 and obtain a license as provided in R313-25 before commencement of construction of a land disposal facility. Failure to comply with this requirement may be grounds for denial of a license and other penalties established by law and



rules.

#### **R313-25-5. Content of Application.**

In addition to the requirements set forth in R313-22-33, an application to receive from others, possess, and dispose of wastes shall consist of general information, specific technical information, institutional information, and financial information as set forth in R313-25-6 through R313-25-10.

#### **R313-25-6. General Information.**

The general information shall include the following:

(1) identity of the applicant including:

(a) the full name, address, telephone number, and description of the business or occupation of the applicant;

(b) if the applicant is a partnership, the names and addresses of the partners and the principal location where the partnership does business;

(c) if the applicant is a corporation or an unincorporated association;

(i) the state where it is incorporated or organized and the principal location where it does business; and

(ii) the names and addresses of its directors and principal officers; and

(d) if the applicant is acting as an agent or representative of another person in filing the application, the applicant shall provide, with respect to the other person, information required under R313-25-6(1).

(2) Qualifications of the applicant shall include the following;

(a) the organizational structure of the applicant, both offsite and onsite, including a description of lines of authority and assignments of responsibilities, whether in the form of administrative directives, contract provisions, or otherwise;

(b) 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 R313-25-6(2)(a) shall be provided;

(c) a description of the applicant's personnel training program; and

(d) 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:

(a) the location of the proposed disposal site;

(b) the general character of the proposed activities;

(c) the types and quantities of waste to be received, possessed, and disposed of;

(d) plans for use of the land disposal facility for purposes other than disposal of wastes; and

(e) the proposed facilities and equipment; and

(4) proposed schedules for construction, receipt of waste, and first emplacement of waste at the proposed land disposal

facility.

**R313-25-7. Specific Technical Information.**

The application shall include certain technical information. The following information is needed to determine whether or not the applicant can meet the performance objectives and the applicable technical requirements of R313-25:

(1) A description of the natural and demographic disposal site characteristics shall be based on and determined by disposal site selection and characterization activities. The description shall include geologic, geochemical, geotechnical, hydrologic, ecologic, archaeologic, meteorologic, climatologic, and biotic features of the disposal site and vicinity.

(2) Descriptions of the design features of the land disposal facility and of the disposal units for near-surface disposal shall include those design features related to infiltration of water; integrity of covers for disposal units; structural stability of backfill, wastes, and covers; contact of wastes with standing water; disposal site drainage; disposal site closure and stabilization; elimination to the extent practicable of long-term disposal site maintenance; inadvertent intrusion; occupational exposures; disposal site monitoring; and adequacy of the size of the buffer zone for monitoring and potential mitigative measures.

(3) Descriptions of the principal design criteria and their relationship to the performance objectives.

(4) Descriptions of the natural events or phenomena on which the design is based and their relationship to the principal design criteria.

(5) Descriptions of codes and standards which the applicant has applied to the design, and will apply to construction of the land disposal facilities.

(6) Descriptions of the construction and operation of the land disposal facility. The description shall include as a minimum the methods of construction of disposal units; waste emplacement; the procedures for and areas of waste segregation; types of intruder barriers; onsite traffic and drainage systems; survey control program; methods and areas of waste storage; and methods to control surface water and ground water access to the wastes. The description shall also include a description of the methods to be employed in the handling and disposal of wastes containing chelating agents or other non-radiological substances which might affect meeting the performance objectives of R313-25.

(7) A description of the disposal site closure plan, including those design features which are intended to facilitate disposal site closures and to eliminate the need for active maintenance after closure.

(8) Identification of the known natural resources at the disposal site whose exploitation could result in inadvertent intrusion into the wastes after removal of active institutional control.

(9) Descriptions of the kind, amount, classification and specifications of the radioactive material proposed to be received, possessed, and disposed of at the land disposal facility.

(10) Descriptions of quality assurance programs, tailored to low-level waste disposal, including audit and managerial controls, for the determination of natural disposal site characteristics and for quality control during the design, construction, operation, and closure of the land disposal facility and the receipt, handling, and emplacement of waste.

(11) A description of the radiation safety program for control and monitoring of radioactive effluents to ensure compliance with the performance objective in R313-25-19 and monitoring of occupational radiation exposure to ensure compliance with the requirements of R313-15 and to control contamination of personnel, vehicles, equipment, buildings, and the disposal site. The applicant shall describe procedures, instrumentation, facilities, and equipment appropriate to both routine and emergency operations.

(12) A description of the environmental monitoring program to provide data and to evaluate potential health and environmental impacts and the plan for taking corrective measures if migration is indicated.

(13) Descriptions of the administrative procedures that the applicant will apply to control activities at the land disposal facility.

(14) A description of the facility electronic recordkeeping system as required in R313-25-33.

#### **R313-25-8. Technical Analyses.**

The specific technical information shall also include the following analyses needed to demonstrate that the performance objectives of R313-25 will be met:

(1) Analyses demonstrating that the general population will be protected from releases of radioactivity shall consider the pathways of air, soil, ground water, surface water, plant uptake, and exhumation by burrowing animals. The analyses shall clearly identify and differentiate between the roles performed by the natural disposal site characteristics and design features in isolating and segregating the wastes. The analyses shall clearly demonstrate a reasonable assurance that the exposures to humans from the release of radioactivity will not exceed the limits set forth in R313-25-19.

(2) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance that the waste classification and segregation requirements will be met and that adequate barriers to inadvertent intrusion will be provided.

(3) Analysis of the protection of individuals during operations shall include assessments of expected exposures due to routine operations and likely accidents during handling, storage, and disposal of waste. The analysis shall provide reasonable assurance that exposures will be controlled to meet the requirements of R313-15.

(4) Analyses of the long-term stability of the disposal site shall be based upon analyses of active natural processes including erosion, mass wasting, slope failure, settlement of wastes and backfill, infiltration through covers over disposal areas and

adjacent soils, and surface drainage of the disposal site. The analyses shall provide reasonable assurance that there will not be a need for ongoing active maintenance of the disposal site following closure.

**R313-25-9. Institutional Information.**

The institutional information submitted by the applicant shall include:

(1) A certification by the federal or state agency which owns the disposal site that the agency is prepared to accept transfer of the license when the provisions of R313-25-16 are met and will assume responsibility for institutional control after site closure and for post-closure observation and maintenance.

(2) Evidence, if the proposed disposal site is on land not owned by the federal or a state government, that arrangements have been made for assumption of ownership in fee by the federal or a state agency.

**R313-25-10. Financial Information.**

This information shall demonstrate that the applicant is financially qualified to carry out the activities for which the license is sought. The information shall meet other financial assurance requirements of R313-25.

**R313-25-11. Requirements for Issuance of a License.**

A license for the receipt, possession, and disposal of waste containing radioactive material will be issued by the Executive Secretary upon finding that:

(1) the issuance of the license will not constitute an unreasonable risk to the health and safety of the public;

(2) the applicant is qualified by reason of training and experience to carry out the described disposal operations in a manner that protects health and minimizes danger to life or property;

(3) the applicant's proposed disposal site, disposal design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control, are adequate to protect the public health and safety as specified in the performance objectives of R313-25-19;

(4) the applicant's proposed disposal site, disposal site design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control are adequate to protect the public health and safety in accordance with the performance objectives of R313-25-20;

(5) the applicant's proposed land disposal facility operations, including equipment, facilities, and procedures, are adequate to protect the public health and safety in accordance with R313-15;

(6) the applicant's proposed disposal site, disposal site design, land disposal facility operations, disposal site closure, and post-closure institutional control plans are adequate to protect the public health and safety in that they will provide

reasonable assurance of the long-term stability of the disposed waste and the disposal site and will eliminate to the extent practicable the need for continued maintenance of the disposal site following closure;

(7) the applicant's demonstration provides reasonable assurance that the requirements of R313-25 will be met;

(8) the applicant's proposal for institutional control provides reasonable assurance that control will be provided for the length of time found necessary to ensure the findings in R313-25-11(3) through (6) and that the institutional control meets the requirements of R313-25-28.

(9) the financial or surety arrangements meet the requirements of R313-25.

#### **R313-25-12. Conditions of Licenses.**

(1) A license issued under R313-25, 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 a person, unless the Executive Secretary finds, after securing full information, that the transfer is in accordance with the provisions of the Radiation Control Act and Rules and gives his consent in writing in the form of a license amendment.

(2) The Executive Secretary may require the licensee to submit written statements under oath.

(3) The license will be terminated only on the full implementation of the final closure plan, including post-closure observation and maintenance, as approved by the Executive Secretary.

(4) The licensee shall submit to the provisions of the Act now or hereafter in effect, and to all findings and orders of the Executive Secretary. The terms and conditions of the license are subject to amendment, revision, or modification, by reason of amendments to, or by reason of rules, and orders issued in accordance with the terms of the Act and these rules.

(5) Persons licensed by the Executive Secretary pursuant to R313-25 shall confine possession and use of the materials to the locations and purposes authorized in the license.

(6) The licensee shall not dispose of waste until the Executive Secretary has inspected the land disposal facility and has found it to conform with the description, design, and construction described in the application for a license.

(7) The Executive Secretary may incorporate, by rule or order, into licenses at the time of issuance or thereafter, additional requirements and conditions with respect to the licensee's receipt, possession, and disposal of waste as the Executive Secretary deems appropriate or necessary in order to:

(a) protect health or to minimize danger to life or property;

(b) require reports and the keeping of records, and to provide for inspections of licensed activities as the Executive Secretary deems necessary or appropriate to effectuate the purposes of the Radiation Control Act and Rules.

(8) The authority to dispose of wastes expires on the

expiration date stated in the license. An expiration date on a license applies only to the above ground activities and to the authority to dispose of waste. Failure to renew the license shall not relieve the licensee of responsibility for implementing site closure, post-closure observation, and transfer of the license to the site owner.

**R313-25-13. Application for Renewal or Closure.**

(1) An application for renewal or an application for closure under R313-25-14 shall be filed at least 90 days prior to license expiration.

(2) Applications for renewal of a license shall be filed in accordance with R313-25-5 through 25-10. Applications for closure shall be filed in accordance with R313-25-14. Information contained in previous applications, statements, or reports filed with the Executive Secretary under the license may be incorporated by reference if the references are clear and specific.

(3) If a licensee has filed an application in proper form for renewal of a license, the license shall not expire unless and until the Executive Secretary has taken final action to deny application for renewal.

(4) In evaluating an application for license renewal, the Executive Secretary will apply the criteria set forth in R313-25-11.

**R313-25-14. Contents of Application for Site Closure and Stabilization.**

(1) Prior to final closure of the disposal site, or as otherwise directed by the Executive Secretary, 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 plan included in the original license application submitted and approved under R313-25-7(7). The plan shall include the following:

(a) additional geologic, hydrologic, or other data pertinent to the long-term containment of emplaced wastes obtained during the operational period;

(b) the results of tests, experiments, or other analyses relating to backfill of excavated areas, closure and sealing, waste migration and interaction with emplacement media, or other tests, experiments, or analyses pertinent to the long-term containment of emplaced waste within the disposal site;

(c) proposed revision of plans for:

(i) decontamination or dismantlement of surface facilities;

(ii) backfilling of excavated areas; or

(iii) stabilization of the disposal site for post-closure care.

(d) Significant new information regarding the environmental impact of closure activities and long-term performance of the disposal site.

(2) Upon review and consideration of an application to amend the license for closure submitted in accordance with R313-25-14(1), the Executive Secretary shall issue an amendment authorizing

closure if there is reasonable assurance that the long-term performance objectives of R313-25 will be met.

**R313-25-15. Post-Closure Observation and Maintenance.**

The licensee shall observe, monitor, and carry out necessary maintenance and repairs at the disposal site until the site closure is complete and the license is transferred by the Executive Secretary in accordance with R313-25-16. The licensee shall remain responsible for the disposal site for an additional five years. The Executive Secretary may approve closure plans that provide for shorter or longer time periods of post-closure observation and maintenance, if sufficient rationale is developed for the variance.

**R313-25-16. Transfer of License.**

Following closure and the period of post-closure observation and maintenance, the licensee may apply for an amendment to transfer the license to the disposal site owner. The license shall be transferred when the Executive Secretary finds:

- (1) that the disposal site was closed according to the licensee's approved disposal site closure plan;
- (2) that the licensee has provided reasonable assurance that the performance objectives of R313-25 have been met;
- (3) that funds for care and records required by R313-25-33(4) and (5) have been transferred to the disposal site owner;
- (4) that the post-closure monitoring program is operational and can be implemented by the disposal site owner; and
- (5) that the Federal or State 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 R313-25-11(8) will be met.

**R313-25-17. Termination of License.**

(1) Following the period of institutional control needed to meet the requirements of R313-25-11, the licensee may apply for an amendment to terminate the license.

(2) This application will be reviewed in accordance with the provisions of R313-22-32.

(3) A license shall be terminated only when the Executive Secretary finds:

(a) that the institutional control requirements of R313-25-11(8) have been met;

(b) that additional requirements resulting from new information developed during the institutional control period have been met;

(c) that permanent monuments or markers warning against intrusion have been installed; and

(d) that records required by R313-25-33(4) and (5) have been sent to the party responsible for institutional control of the disposal site and a copy has been sent to the Executive Secretary immediately prior to license termination.

**R313-25-18. General Requirement.**

Land disposal facilities shall be sited, designed, operated,

closed, and controlled after closure so that reasonable assurance exists that exposures to individuals do not exceed the limits stated in R313-25-19 and 25-22.

**R313-25-19. Protection of the General Population from Releases of Radioactivity.**

Concentrations of radioactive material which may be released to the general environment in ground water, surface water, air, soil, plants or animals shall not result in an annual dose exceeding an equivalent of 0.25 mSv (0.025 rem) to the whole body, 0.75 mSv (0.075 rem) to the thyroid, and 0.25 mSv (0.025 rem) to any other organ of any member of the public. No greater than 0.04 mSv (0.004 rem) committed effective dose equivalent or total effective dose equivalent to any member of the public shall come from groundwater. Reasonable efforts should be made to maintain releases of radioactivity in effluents to the general environment as low as is reasonably achievable.

**R313-25-20. Protection of Individuals from Inadvertent Intrusion.**

Design, operation, and closure of the land disposal facility shall ensure protection of any individuals inadvertently intruding into the disposal site and occupying the site or contacting the waste after active institutional controls over the disposal site are removed.

**R313-25-21. Protection of Individuals During Operations.**

Operations at the land disposal facility shall be conducted in compliance with the standards for radiation protection set out in R313-15 of these rules, except for release of radioactivity in effluents from the land disposal facility, which shall be governed by R313-25-19. Every reasonable effort should be made to maintain radiation exposures as low as is reasonably achievable, ALARA.

**R313-25-22. Stability of the Disposal Site After Closure.**

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.

**R313-25-23. Disposal Site Suitability Requirements for Land Disposal - Near-Surface Disposal.**

(1) The primary emphasis in disposal site suitability is given to isolation of wastes and to disposal site features that ensure that the long-term performance objectives are met.

(2) The disposal site shall be capable of being characterized, modeled, analyzed and monitored.

(3) Within the region where the facility is to be located, a disposal site should be selected so that projected population growth and future developments are not likely to affect the ability of the disposal facility to meet the performance objectives of



R313-25.

(4) Areas shall be avoided having known natural resources which, if exploited, would result in failure to meet the performance objectives of R313-25.

(5) The disposal site shall be generally well drained and free of areas of flooding or frequent ponding. Waste disposal shall not take place in a 100-year flood plain, coastal high-hazard area or wetland, as defined in Executive Order 11988, "Floodplain Management Guidelines."

(6) Upstream drainage areas shall be minimized to decrease the amount of runoff which could erode or inundate waste disposal units.

(7) The disposal site shall provide sufficient depth to the water table that ground water intrusion, perennial or otherwise, into the waste will not occur. The Executive Secretary will consider an exception to this requirement to allow disposal below the water table if it can be conclusively shown that disposal site characteristics will result in molecular diffusion being the predominant means of radionuclide movement and the rate of movement will result in the performance objectives being met. In no case will waste disposal be permitted in the zone of fluctuation of the water table.

(8) The hydrogeologic unit used for disposal shall not discharge ground water to the surface within the disposal site.

(9) Areas shall be avoided where tectonic processes such as faulting, folding, seismic activity, vulcanism, or similar phenomena may occur with such frequency and extent to significantly affect the ability of the disposal site to meet the performance objectives of R313-25 or may preclude defensible modeling and prediction of long-term impacts.

(10) Areas shall be avoided where surface geologic processes such as mass wasting, erosion, slumping, landsliding, or weathering occur with sufficient such frequency and extent to significantly affect the ability of the disposal site to meet the performance objectives of R313-25, or may preclude defensible modeling and prediction of long-term impacts.

(11) The disposal site shall not be located where nearby facilities or activities could adversely impact the ability of the site to meet the performance objectives of R313-25 or significantly mask the environmental monitoring program.

#### **R313-25-24. Disposal Site Design for Near-Surface Land Disposal.**

(1) Site design features shall be directed toward long-term isolation and avoidance of the need for continuing active maintenance after site closure.

(2) The disposal site design and operation shall be compatible with the disposal site closure and stabilization plan and lead to disposal site closure that provides reasonable assurance that the performance objectives will be met.

(3) The disposal site shall be designed to complement and improve, where appropriate, the ability of the disposal site's natural characteristics to assure that the performance objectives will be met.

(4) Covers shall be designed to minimize, to the extent practicable, water infiltration, to direct percolating or surface water away from the disposed waste, and to resist degradation by surface geologic processes and biotic activity.

(5) Surface features shall direct surface water drainage away from disposal units at velocities and gradients which will not result in erosion that will require ongoing active maintenance in the future.

(6) The disposal site shall be designed to minimize to the extent practicable the contact of water with waste during storage, the contact of standing water with waste during disposal, and the contact of percolating or standing water with wastes after disposal.

**R313-25-25. Near Surface Land Disposal Facility Operation and Disposal Site Closure.**

(1) Wastes designated as Class A pursuant to R313-15-307 of these rules shall be segregated from other wastes by placing them in disposal units which are sufficiently separated from disposal units for the other waste classes so that any interaction between Class A wastes and other wastes will not result in the failure to meet the performance objectives of R313-25. This segregation is not necessary for Class A wastes if they meet the stability requirements of R313-15-308(2).

(2) Wastes designated as Class C pursuant to R313-15-307 shall be disposed of so that the top of the waste is a minimum of five meters below the top surface of the cover or shall be disposed of with intruder barriers that are designed to protect against an inadvertent intrusion for at least 500 years.

(3) Except as provided in R313-25-1(1), only waste classified as Class A, B, or C shall be acceptable for near-surface disposal. Wastes shall be disposed of in accordance with the requirements of R313-25-25(4) through 11.

(4) Wastes shall be emplaced in a manner that maintains the package integrity during emplacement, minimizes the void spaces between packages, and permits the void spaces to be filled.

(5) Void spaces between waste packages shall be filled with earth or other material to reduce future subsidence within the fill.

(6) Waste shall be placed and covered in a manner that limits the radiation dose rate at the surface of the cover to levels that at a minimum will permit the licensee to comply with all provisions of R313-15-105 at the time the license is transferred pursuant to R313-25-16.

(7) The boundaries and locations of disposal units shall be accurately located and mapped by means of a land survey. Near-surface disposal units shall be marked in such a way that the boundaries of the units can be easily defined. Three permanent survey marker control points, referenced to United States Geological Survey or National Geodetic Survey control stations, shall be established on the site to facilitate surveys. The United States Geological Survey or National Geodetic Survey control stations shall provide horizontal and vertical controls as checked

against United States Geological Survey or National Geodetic Survey record files.

(8) A buffer zone of land shall be maintained between any buried waste and the disposal site boundary and beneath the disposed waste. The buffer zone shall be of adequate dimensions to carry out environmental monitoring activities specified in R313-25-26(4) and take mitigative measures if needed.

(9) Closure and stabilization measures as set forth in the approved site closure plan shall be carried out as the disposal units are filled and covered.

(10) Active waste disposal operations shall not have an adverse effect on completed closure and stabilization measures.

(11) Only wastes containing or contaminated with radioactive material shall be disposed of at the disposal site.

(12) Proposals for disposal of waste that are not generally acceptable for near-surface disposal because the wastes form and disposal methods shall be different and, in general, more stringent than those specified for Class C waste, may be submitted to the Executive Secretary for approval.

#### **R313-25-26. Environmental Monitoring.**

(1) At the time a license application is submitted, the applicant shall have conducted a preoperational monitoring program to provide basic environmental data on the disposal site characteristics. The applicant shall obtain information about the ecology, meteorology, climate, hydrology, geology, geochemistry, and seismology of the disposal site. For those characteristics that are subject to seasonal variation, data shall cover at least a 12-month period.

(2) During the land disposal facility site construction and operation, the licensee shall maintain an environmental monitoring program. Measurements and observations shall be made and recorded to provide data to evaluate the potential health and environmental impacts during both the construction and the operation of the facility and to enable the evaluation of long-term effects and need for mitigative measures. The monitoring system shall be capable of providing early warning of releases of waste from the disposal site before they leave the site boundary.

(3) After the disposal site is closed, the licensee responsible for post-operational 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 site before they leave the site boundary.

(4) The licensee shall have plans for taking corrective measures if the environmental monitoring program detects migration of waste which would indicate that the performance objectives may not be met.

#### **R313-25-27. Alternative Requirements for Design and Operations.**

The Executive Secretary may, upon request or on his own initiative, authorize provisions other than those set forth in

R313-25-24 and 25-26 for the segregation and disposal of waste and for the design and operation of a land disposal facility on a specific basis, if it finds reasonable assurance of compliance with the performance objectives of R313-25.

**R313-25-28. Institutional Requirements.**

(1) Land Ownership. Disposal of waste received from other persons may be permitted only on land owned in fee by the Federal or a State government.

(2) Institutional Control. The land owner or custodial agency shall conduct an institutional control program to physically control access to the disposal site following transfer of control of the disposal site from the disposal site operator. The institutional control program shall also include, but not be limited to, conducting an environmental monitoring program at the disposal site, periodic surveillance, minor custodial care, and other equivalents as determined by the Executive Secretary, and administration of funds to cover the costs for these activities. The period of institutional controls will be determined by the Executive Secretary, but institutional controls may not be relied upon for more than 100 years following transfer of control of the disposal site to the owner.

**R313-25-30. Applicant Qualifications and Assurances.**

The applicant shall show that it either possesses the necessary funds, or has reasonable assurance of obtaining the necessary funds, or by a combination of the two, to cover the estimated costs of conducting all licensed activities over the planned operating life of the project, including costs of construction and disposal.

**R313-25-31. Funding for Disposal Site Closure and Stabilization.**

(1) The applicant shall provide assurances prior to the commencement of operations that sufficient funds will be available to carry out disposal site closure and stabilization, including:

(a) decontamination or dismantlement of land disposal facility structures, and

(b) closure and stabilization of the disposal site so that following transfer of the disposal site to the site owner, 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 Executive Secretary approved cost estimates reflecting the Executive Secretary approved plan for disposal site closure and stabilization. The applicant's cost estimates shall take into account total costs that would be incurred if an independent contractor were hired to perform the closure and stabilization work.

(2) In order to avoid unnecessary duplication and expense, the Executive Secretary will accept financial sureties that have been consolidated with earmarked financial or surety arrangements established to meet requirements of Federal or other State agencies or local governmental bodies for decontamination, closure, and

stabilization. The Executive Secretary will accept these arrangements only if they are considered adequate to satisfy the requirements of R313-25-31 and if they clearly identify that the portion of the surety which covers the closure of the disposal site is clearly identified and committed for use in accomplishing these activities.

(3) The licensee's financial or surety arrangement shall be submitted annually for review by the Executive Secretary to assure that sufficient funds will be available for completion of the closure plan.

(4) The amount of the licensee's financial or surety arrangement shall change in accordance with changes in the predicted costs of closure and stabilization. Factors affecting closure and stabilization cost estimates include inflation, increases in the amount of disturbed land, changes in engineering plans, closure and stabilization that have already been accomplished, and other conditions affecting costs. The financial or surety arrangement shall be sufficient at all times to cover the costs of closure and stabilization of the disposal units that are expected to be used before the next license renewal.

(5) The financial or surety arrangement shall be written for a specified period of time and shall be automatically renewed unless the person who issues the surety notifies the Executive Secretary; the beneficiary, the site owner; and the principal, the licensee, not less than 90 days prior to the renewal date of its intention not to renew. In such a 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 Executive Secretary, the beneficiary may collect on the original surety.

(6) Proof of forfeiture shall not be necessary to collect the surety so that, in the event that the licensee could not provide an acceptable replacement surety within the required time, the surety shall be automatically collected prior to its expiration. The conditions described above shall be clearly stated on surety instruments.

(7) Financial or surety arrangements generally acceptable to the Executive Secretary include surety bonds, cash deposits, certificates of deposit, deposits of government securities, escrow accounts, irrevocable letters or lines of credit, trust funds, and combinations of the above or other types of arrangements as may be approved by the Executive Secretary. Self-insurance, or an arrangement which essentially constitutes self-insurance, will not satisfy the surety requirement for private sector applicants.

(8) The licensee's financial or surety arrangement shall remain in effect until the closure and stabilization program has been completed and approved by the Executive Secretary, and the license has been transferred to the site owner.

#### **R313-25-32. Financial Assurances for Institutional Controls.**

(1) Prior to the issuance of the license, the applicant shall provide for Executive Secretary approval, a binding arrangement, between the applicant and the disposal site owner that ensures that

sufficient funds will be available to cover the costs of monitoring and required maintenance during the institutional control period. The binding arrangement shall be reviewed annually by the Executive Secretary to ensure that changes in inflation, technology, and disposal facility operations are reflected in the arrangements.

(2) Subsequent changes to the binding arrangement specified in R313-25-32(1) relevant to institutional control shall be submitted to the Executive Secretary for prior approval.

**R313-25-33. Maintenance of Records, Reports, and Transfers.**

(1) Licensees shall maintain records and make reports in connection with the licensed activities as may be required by the conditions of the license or by the rules and orders of the Executive Secretary.

(2) Records which are required by these rules or by license conditions shall be maintained for a period specified by the appropriate rules or by license condition. If a retention period is not otherwise specified, these records shall be maintained and transferred to the officials specified in R313-25-33(4) as a condition of license termination unless the Executive Secretary otherwise authorizes their disposition.

(3) Records which shall be maintained pursuant to R313-25 may be the original or a reproduced copy or microfilm if this reproduced copy or microfilm is capable of producing copy that is clear and legible at the end of the required retention period.

(4) Notwithstanding R313-25-33(1) through (3), copies of records of the location and the quantity of wastes contained in the disposal site shall be transferred upon license termination to the chief executive of the nearest municipality, the chief executive of the county in which the facility is located, the county zoning board or land development and planning agency, the State Governor, and other state, local, and federal governmental agencies as designated by the Executive Secretary at the time of license termination.

(5) Following receipt and acceptance of a shipment of waste, the licensee shall record the date that the shipment is received at the disposal facility, the date of disposal of the waste, a traceable shipment manifest number, a description of any engineered barrier or structural overpack provided for disposal of the waste, the location of disposal at the disposal site, the condition of the waste packages as received, discrepancies between the materials listed on the manifest and those received, the volume of any pallets, bracing, or other shipping or onsite generated materials that are contaminated, and are disposed of as contaminated or suspect materials, and evidence of leakage or damaged packages or radiation or contamination levels in excess of limits specified in U.S. Department of Transportation and Executive Secretary regulations or rules. The licensee shall briefly describe repackaging operations of the waste packages included in the shipment, plus other information required by the Executive Secretary as a license condition.

(6) Licensees authorized to dispose of waste received from other persons shall file a copy of their financial report or a

certified financial statement annually with the Executive Secretary in order to update the information base for determining financial qualifications.

(7)(a) Licensees authorized to dispose of waste received from other persons, pursuant to R313-25, shall submit annual reports to the Executive Secretary. Reports shall be submitted by the end of the first calendar quarter of each year for the preceding year.

(b) The reports shall include:

(i) specification of the quantity of each of the principal contaminants released to unrestricted areas in liquid and in airborne effluents during the preceding year;

(ii) the results of the environmental 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; and

(vi) other information the Executive Secretary may require.

(c) 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.

(8) In addition to the other requirements in R313-25-33, the licensee shall store, or have stored, manifest and other information pertaining to receipt and disposal of radioactive waste in an electronic recordkeeping system.

(a) The manifest information that must be electronically stored is:

(i) that required in Appendix G of 10 CFR 20.1001 to 20.2402, 1997 ed., which is incorporated into these rules by reference, with the exception of shipper and carrier telephone numbers and shipper and consignee certifications; and

(ii) that information required in R313-25-33(5).

(b) As specified in facility license conditions, the licensee shall report the stored information, or subsets of this information, on a computer-readable medium.

#### **R313-25-34. Tests on Land Disposal Facilities.**

Licensees shall perform, or permit the Executive Secretary to perform, any tests the Executive Secretary deems appropriate or necessary for the administration of the rules in R313-25, including, but not limited to, tests of;

(1) wastes;

(2) facilities used for the receipt, storage, treatment, handling or disposal of wastes;

(3) radiation detection and monitoring instruments; or

(4) other equipment and devices used in connection with the receipt, possession, handling, treatment, storage, or disposal of waste.

#### **R313-25-35. Executive Secretary Inspections of Land Disposal**

**Facilities.**

(1) Licensees shall afford to the Executive Secretary, at reasonable times, opportunity to inspect waste not yet disposed of, and the premises, equipment, operations, and facilities in which wastes are received, possessed, handled, treated, stored, or disposed of.

(2) Licensees shall make available to the Executive Secretary for inspection, upon reasonable notice, records kept by it pursuant to these rules. Authorized representatives of the Executive Secretary may copy and take away copies of, for the Executive Secretary's use, any records required to be kept pursuant to R313-25.

**KEY: radiation, radioactive waste disposal**

**March 10, 2000**

**19-3-104**

**Notice of Continuation May 1, 1997**

**19-3-108**



# UTAH RADIATION CONTROL RULES

## CHAPTER R313-70 PAYMENTS, CATEGORIES AND TYPES OF FEES

SECTION	TITLE	PAGE
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R313-70-3	Communications	70-1
R313-70-5	Payment of Fees	70-1
R313-70-7	License Categories and Types of Fees for Radioactive Materials Licenses	70-2
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R313-70-9	Other Fees for Services	70-9

**R313. Environmental Quality, Radiation Control.**  
**R313-70. Payments, Categories and Types of Fees.**

**R313-70-1. General.**

R313-70 applies to persons who receive, possess, or use sources of radiation provided, however, that nothing in these rules shall apply to the extent a person is subject to regulations by the U.S. Nuclear Regulatory Commission. The fees charged are authorized by subsection 19-3-104(4) of the Environmental Quality Code.

**R313-70-3. Communications.**

Communications concerning the rules in R313-70 should be addressed to the Executive Secretary, and may be sent to the Division of Radiation Control, Department of Environmental Quality. Communications may be delivered in person at the Division of Radiation Control offices.

**R313-70-5. Payment of Fees.**

- (1) New Application Fee: Applications for machine registration or radioactive material licensing for which a fee is prescribed, shall be accompanied by a remittance in the full amount of the fee. Applications will not be accepted for filing or processing prior to payment of the full amount specified. Applications for which no remittance is received will be returned to the applicant. Application fees will be charged irrespective of the Executive Secretary's disposition of the application or a withdrawal of the application.
- (2) Annual Fee: Persons and individuals who are subject to licensing or registration of radioactive material or radiation machine registration with the Department of Environmental Quality under provisions of the Utah Radiation Control Rules, are assessed an annual fee in accordance with categories of R313-70-7 and R313-70-8. The appropriate fee shall be filed annually with the Executive Secretary, by July 30 for registrants or by the anniversary date for licensees. Fees for radiation machine registration will be considered late if not received annually by the last day of August. Licensees may be assessed late fees if license fees are not received within 30 days after the license anniversary date. Late fees may also be assessed for successive 30 day periods during which the annual fee or registration fee remains unpaid.
- (3) Inspection Fee: Persons and entities who, under provisions of the Utah Radiation Control Rules, are subject to radiation machine registration with the Department of Environmental Quality are assessed an inspection fee in accordance with R313-70-8. Fees for inspection of a radiation machine are due within 30 days of receipt of an invoice from the Agency. Registrants may be assessed late fees if inspection fees are not received in a timely manner.
- (4) Failure to pay the prescribed fee: the Executive Secretary will not process applications and may suspend or revoke licenses or registrations or may issue an

order with respect to the activities as the Executive Secretary determines to be appropriate or necessary in order to carry out the provisions of this part of R313-70, and of the Act.

- (a) General license certificates of registration and specific licenses issued pursuant to the provisions in R313-21 or R313-22, will be valid for a period of five years unless failure to submit appropriate fee occurs. Machine registrations will be valid for one year during the interval outlined in R313-16-230. Failure to submit appropriate fees will render the license, certificate or registration invalid, at which time a new application with appropriate fees shall be submitted.
  - (b) Renewal applications shall be filed in a timely manner in accordance with R313-22-37 or R313-16-230. The radioactive material license will expire on the date specified on the license. Machine registration will expire as outlined in R313-16-230. An expired license cannot be renewed, rather the licensee will be required to submit an application for a new license and submit the appropriate application and new license fee.
- (5) Method of Payment: Fees shall be made payable to: Division of Radiation Control, Department of Environmental Quality.

#### **R313-70-7. License Categories and Types of Fees for Radioactive Materials Licenses.**

Fees shall be established in accordance with the Legislative Appropriations Act. Copies of established fee schedules may be obtained from the Executive Secretary.

TABLE

LICENSE CATEGORY	TYPE OF FEE
(1) Special Nuclear Material	
(a) Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems, including x-ray fluorescence analyzers and neutron generators.	New License or Renewal Annual Fee
(b) Licenses for possession and use of less than 15 g special nuclear material in unsealed form for research and development.	New License or Renewal Annual Fee
(c) All other special nuclear material licenses	New License or Renewal Annual Fee

(d)	Special nuclear material to be used as calibration and reference sources.	New License or Renewal Annual Fee
(2)	Source Material.	
(a)	Licenses for concentrations of uranium from other areas like copper or phosphates for the production of moist, solid, uranium yellow cake.	New License or Renewal Annual Fee
(b)	Licenses for possession and use of source material for shielding.	New License or Renewal Annual Fee
(c)	All other source material licenses.	New License or Renewal Annual Fee
(3)	Radioactive Material Other than Source Material and Special Nuclear Material.	
(a)(i)	Licenses of broad scope for possession and use of radioactive material for processing or manufacturing of items containing radioactive material for commercial distribution.	New License or Renewal Annual Fee
(a)(ii)	Other licenses for possession and use of radioactive material for processing or manufacturing of items containing radioactive material for commercial distribution.	New License or Renewal Annual Fee
(b)	Licenses authorizing the processing or manufacturing and distribution or redistribution of radiopharmaceuticals, generators, reagent kits, or sources or devices containing radioactive material.	New License or Renewal Annual Fee
(c)	Licenses authorizing distribution or redistribution of radiopharmaceuticals, generators, reagent kits, or sources or devices not involving processing of radioactive material.	New License or Renewal Annual Fee
(d)	Licenses for possession and use of radioactive material for industrial radiography operations.	New License or Renewal Annual Fee

(e)	Licenses for possession and use of sealed sources for irradiation of materials in which the source is not removed from its shield (self-shielded units).	New License or Renewal Annual Fee
(f)(i)	Licenses for possession and use of less than 10,000 curies of radioactive material in sealed sources for irradiation of materials in which the source is exposed for irradiation purposes.	New License or Renewal Annual Fee
(f)(ii)	Licenses for possession and use of 10,000 curies or more of radioactive material in sealed sources for irradiation of materials in which the source is exposed for irradiation purposes.	New License or Renewal Annual Fee
(g)	Licenses to distribute items containing radioactive material that require device review to persons exempt from the licensing requirements of R313-19, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons exempt from the licensing requirements of R313-19.	New License or Renewal Annual Fee
(h)	Licenses to distribute items containing radioactive material or quantities of radioactive material that do not require device evaluation to persons exempt from the licensing requirements of R313-19, except for specific licenses authorizing redistribution of items that have been authorized for distribution to persons exempt from the licensing requirements of R313-19.	New License or Renewal Annual Fee
(i)	Licenses to distribute items containing radioactive material that require sealed source or device review to persons generally licensed under R313-21, except specific licenses authorizing redistribution of items that have been authorized for	New License or Renewal Annual Fee

distribution to persons generally licensed under R313-21.

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| (j) | Licenses to distribute items containing radioactive material or quantities of radioactive material that do not require sealed source or device review to persons generally licensed under R313-21, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed under R313-21. | New License or Renewal<br>Annual Fee      |
| (k) | Licenses for possession and use of radioactive material for research and development, which do not authorize commercial distribution.   | New License or Renewal<br>Annual Fee      |
| (l) | All other specific radioactive material licenses.   | New License or Renewal<br>Annual Fee      |
| (m) | Licenses of broad scope for possession and use of radioactive material for research and development which do not authorize commercial distribution.   | New License or Renewal<br>Annual Fee      |
| (n) | Licenses that authorize services for other licensees, except licenses that authorize leak testing or waste disposal services which are subject to the fees specified for the listed services.   | New License or Renewal<br>Annual Fee      |
| (o) | Licenses that authorize services for leak testing only  | New License or Renewal<br>Annual Fee      |
| (4) | Radioactive Waste Disposal:   |   |
| (a) | Licenses specifically authorizing the receipt of waste radioactive material from other persons for the purpose of commercial disposal by land by the licensee.  | Application Fee<br>New License or Renewal |
| (b) | Licenses specifically authorizing the receipt of waste radioactive material from other persons for the purpose of packaging or repackaging the material.  | New License or Renewal<br>Annual Fee      |

The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.

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| (c)  | Licenses specifically authorizing the receipt of prepackaged waste radioactive material from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material. | New License or Renewal<br>Annual Fee |
| (d)  | Licenses authorizing packaging of radioactive waste for shipment to waste disposal site where licensee does not take possession of waste material.  | New License or Renewal<br>Annual Fee |
| (5) Well logging, well surveys and tracer studies. |   |                                      |
| (a)  | Licenses for possession and use of radioactive material for well logging, well surveys and tracer studies other than field flooding tracer studies.   | New License or Renewal<br>Annual Fee |
| (b)  | Licenses for possession and use of radioactive material for field flooding tracer studies.  | New License or Renewal<br>Annual Fee |
| (6) Nuclear laundries.                             |   |                                      |
| (a)  | Licenses for commercial collection and laundry of items contaminated with radioactive material.   | New License or Renewal<br>Annual Fee |
| (7) Human use of radioactive material.             |   |                                      |
| (a)  | Licenses for human use of radioactive material in sealed sources contained in teletherapy devices.  | New License or Renewal<br>Annual Fee |
| (b)  | Other licenses issued for human use of radioactive material, except licenses for use of radioactive material contained in teletherapy devices.  | New License or Renewal<br>Annual Fee |
| (c)  | Licenses of broad scope issued to medical institutions or two or more physicians authorizing research and   | New License or Renewal<br>Annual Fee |

development, including human use of radioactive material, except licenses for radioactive material in sealed sources contained in teletherapy devices.

(8) Civil Defense.

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| (a) | Licenses for possession and use of radioactive material for civil defense activities. | New License or Renewal<br>Annual Fee |
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(9) Power Source.

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| (a) | Licenses for the manufacture and distribution of encapsulated radioactive material wherein the decay energy of the material is used as a source for power. | New License or Renewal<br>Annual Fee |
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(10) General License

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| (a) | Measuring, gauging and control devices as described in R313-21-22(4), other than hydrogen-3 (tritium) devices and polonium-210 devices containing no more than 10 millicuries used for producing light or an ionized atmosphere. | Fee per registration certificate   |
| (b) | In Vitro testing   | Fee per registration certificate   |
| (c) | Depleted uranium   | Fee per registration certificate   |
| (d) | Reciprocal recognition, as provided for in R313-19-30, of a license issued by the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State.   | Annual fee for license category listed in R313-70-7(1) through (10), per 180 days in one calendar year |

**R313-70-8. Registration and Inspection Categories and Types of Fees for Registration of Radiation Machines.**

- (1) For machines registered under R313-16-230, registrants will pay an annual registration fee and an inspection fee that shall be established in accordance with the Legislative Appropriations Act. Copies of established fee schedules may be obtained from the Executive Secretary.



TABLE

FACILITY TYPE	TYPE OF FEE	
Hospital/Therapy	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Medical	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Podiatry	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Veterinary	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Chiropractic	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Dental	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per control unit and first tube plus each additional tube connected to a control unit.

Industrial Facility with High Very High Radiation Areas Accessible to Individuals	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Industrial Facility with Cabinet X-ray or Units Designed for Other Industrial Purposes	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Other	Registration	Annual per control unit and first tube plus annual per each additional tube connected to a control unit.
	State Inspection	Per tube.
Acceptance of work, performed by a person meeting the qualifications in R313-16-400, that demonstrates compliance with these rules.		Per tube reviewed.

### 19-3-70-9. Other Fees for Services.

TABLE

(1)	Expedited application review. Applicable when, by mutual consent of the applicant and affected staff, an application request is taken out of date order and processed by staff during non-work hours	Hourly
(2)	Review of plans for decommissioning, decontamination, reclamation, or site restoration activities.	Plan Review Plus Hourly
(3)	Management and oversight of impounded radioactive material.	Actual Cost
(4)	License amendment, for greater than three applications in a calendar year.	Amendment Fee

**KEY:** radioactive material, x-rays, registration, fees  
List 13, 1999

19-3-104(4)

Notice of Continuation May 15, 1997

# DEQ Annual Fees Document

## ANNUAL APPROPRIATION ACT

2000 GENERAL SESSION

STATE OF UTAH

Sponsor: David Steele

AN ACT RELATING TO APPROPRIATIONS; PROVIDING APPROPRIATIONS FOR THE SUPPORT OF STATE GOVERNMENT FOR THE FISCAL YEAR BEGINNING JULY 1, 2000 AND ENDING JUNE 30, 2001; PROVIDING INTENT LANGUAGE GOVERNING EXPENDITURES; APPROVING FEES; AND PROVIDING AN EFFECTIVE DATE.

Be it enacted by the Legislature of the State of Utah:

Section 1. Under the terms and conditions of Section 63-38-3, the following sums of money are appropriated out of money not otherwise appropriated from the funds or fund accounts indicated for the use and support of the government of the State of Utah for the fiscal year indicated.

EXECUTIVE OFFICES, CRIMINAL JUSTICE, &amp; LEGISLATURE

LEGISLATURE

ITEM 1	To Legislature - Senate	
	From General Fund	1,445,200
	Schedule of Programs:	
	Administration	1,445,200
ITEM 2	To Legislature - Legislative Printing	
	From General Fund	523,500
	From Dedicated Credits Revenue	331,000
	Schedule of Programs:	
	Administration	854,500
ITEM 3	To Legislature - Office of Legislative Research and General Counsel	
	From General Fund	4,257,200
	From General Fund, One-time	395,300
	Schedule of Programs:	



## 8322 TRANSPORTATION AND ENVIRONMENTAL

8323 In accordance with Section 63-38-3.2, the following fees are approved for the services of the

8324 Division of Environmental Quality for FY 2001.

8325 All Divisions

8326 Request for copies over 10 pages, per page 0.25

8327 Copies made by the requestor, per page 0.05

8328 Compiling, tailoring, searching, etc., a record

8329 in another format (at rate of lowest paid

8330 staff employee who, has the necessary skill and training

8331 to perform the request, after the first quarter hour.) Actual Cost

~~8332 Division of Air Quality~~~~8333 Utah Air Conservation Rules~~~~8334 Printed 8.50~~~~8335 Computer disk 7.50~~~~8336 Utah State Implementation Plan~~~~8337 Printed 87.00~~~~8338 Computer disk 15.00~~~~8339 Without Basic I/M Appendices~~~~8340 Printed 35.00~~~~8341 Computer disk 20.00~~~~8342 Basic I/M Appendices~~~~8343 Printed 47.00~~~~8344 Computer disk 10.00~~~~8345 Emission Limits for Salt Lake/Davis County~~~~8346 Printed 13.00~~~~8347 Computer disk 7.50~~~~8348 Emission Limits for Utah County~~~~8349 Printed 4.00~~~~8350 Computer disk 7.50~~~~8351 Utah Air Conservation Act~~~~8352 Printed 5.00~~~~8353 Computer disk 3.00~~~~8354 Notice of Intent Instructions-A Methodology~~~~8355 Printed 5.00~~~~8356 Computer disk 3.00~~

8497	information for Utah CERCLIS sites	<del>50.00</del>
8498	Plotter printing of existing computer programs,	
8499	per foot	12.00
8500	Plotter printing of specialized computer programs,	
<del>8501</del>	<del>per hour</del>	<del>50.00</del>
8502	Division of Radiation Control	
8503	Utah Radiation Control Rules, complete set	12.00
8504	Utah Radiation Control Rules, partial set,	
8505	Machine-Generated Radiation	8.00
8506	Utah Radiation Control Rules, partial set,	
8507	Radioactive Materials	8.00
8508	List of all radioactive material licensees	10.00
8509	List of all x-ray machine registrants	10.00
8510	Machine-Generated Radiation	
8511	Hospital/Therapy	
8512	Annual Registration Fee, per control	
8513	unit and first tube, plus annual fee	
8514	for each additional tube connected to	
8515	the control unit	10.00
8516	Division Conducted Inspection,	
8517	per tube	105.00
8518	Medical	
8519	Annual Registration Fee, per control	
8520	unit and first tube, plus annual fee	
8521	for each additional tube connected to	
8522	the control unit	10.00
8523	Division Conducted Inspection,	
8524	per tube	105.00
8525	Chiropractic	
8526	Annual Registration Fee, per control unit and first tube,	
8527	plus annual fee for each additional tube connected to the	
8528	control unit	10.00
8529	Division Conducted Inspection, per tube	105.00
8530	Podiatry/Veterinary	
8531	Annual Registration Fee, per control	

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8532	unit and first tube, plus annual fee	
8533	for each additional tube connected to	
8534	the control unit	10.00
8535	Division Conducted Inspection,	
8536	per tube	75.00
8537	Dental	
8538	Annual Registration Fee, per control	
8539	unit and first tube, plus annual fee	
8540	for each additional tube connected to	
8541	the control unit	10.00
8542	Division Conducted Inspection, per tube	
8543	First tube on a single control unit	45.00
8544	Additional tubes on a control unit, per tube	12.50
8545	Industrial Facility with High and/or Very High	
8546	Radiation Areas Accessible to Individuals	
8547	Annual Registration Fee, per control unit and first	
8548	tube, plus annual fee for each additional tube	
8549	connected to the control unit	10.00
8550	Division Conducted Inspection	
8551	per tube	105.00
8552	Industrial Facility with Cabinet X-Ray Units or	
8553	Units Designed for other Purposes	
8554	Annual Registration Fee, per control unit and	
8555	first tube, plus annual fee for each additional	
8556	tube connected to the control unit	10.00
8557	Division Conducted Inspection	
8558	per tube	75.00
8559	Other	
8560	Annual Registration Fee, per control unit and	
8561	first tube, plus annual fee for each additional	
8562	tube connected to the control unit	10.00
8563	Division Conducted Annual or Biannual	
8564	Inspection, per tube	105.00
8565	Division Conducted Inspection, once every five	
8566	years, per tube	75.00

8567	Acceptance of work for types of facilities listed above,	
8568	performed by a person meeting the qualifications in	
8569	R313-16-400, that demonstrates compliance with R313	
8570	per tube	15.00
8571	Radioactive Material	
8572	Special Nuclear Material	
8573	Possession and use of special nuclear material	
8574	in sealed sources contained in devices used	
8575	in industrial measuring systems, including	
8576	x-ray fluorescence analyzers and neutron	
8577	generators	
8578	New License/Renewal	440.00
8579	Annual Fee	370.00
8580	Possession and use of less than 15 grams	
8581	special nuclear material in unsealed form for	
8582	research and development	
8583	New License/Renewal	730.00
8584	Annual Fee	370.00
8585	Special nuclear material to be used as	
8586	calibration and reference sources	
8587	New License/Renewal	180.00
8588	Annual Fee	120.00
8589	All other special nuclear material licenses	
8590	New License/Renewal	1,150.00
8591	Annual Fee	800.00
8592	Source Material	
8593	Licenses for concentrations of uranium from	
8594	other areas (i.e. copper, phosphates, etc.) for	
8595	the production of uranium yellow cake (moist,	
8596	solid)	
8597	New License/Renewal	5,510.00
8598	Annual Fee	2,110.00
8599	Licenses for possession and use of source	
8600	material for shielding	
8601	New License/Renewal	230.00



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8602	Annual Fee	160.00
8603	All other source material licenses	
8604	New License/Renewal	1,000.00
8605	Annual Fee	560.00
8606	Radioactive Material other than Source	
8607	Material and Special Nuclear Material	
8608	Licenses of broad scope for possession and	
8609	use of radioactive material for processing or	
8610	manufacturing of items containing radioactive	
8611	material for commercial distribution	
8612	New License/Renewal	2,320.00
8613	Annual Fee	1,480.00
8614	Other licenses for possession and use of	
8615	radioactive material for processing or	
8616	manufacturing of items containing	
8617	radioactive material for commercial	
8618	distribution	
8619	New License/Renewal	1,670.00
8620	Annual Fee	1,020.00
8621	Licenses authorizing the processing or	
8622	manufacturing and distribution or redistribution	
8623	of radiopharmaceuticals, generators, reagent kits,	
8624	or sources or devices containing radioactive	
8625	material	
8626	New License/Renewal	2,320.00
8627	Annual Fee	1,480.00
8628	Licenses authorizing distribution or redistribution	
8629	of radiopharmaceuticals, generators, reagent kits,	
8630	or sources or devices not involving processing of	
8631	radioactive material	
8632	New License/Renewal	860.00
8633	Annual Fee	500.00
8634	Licenses for possession and use of radioactive	
8635	material for industrial radiography operations.	
8636	New License/Renewal	1,670.00

8637	Annual Fee	1,280.00
8638	Licenses for possession and use of radioactive	
8639	material in sealed sources for irradiation of	
8640	materials in which the source is not	
8641	removed from its shield (self-shielded units)	
8642	New License/Renewal	700.00
8643	Annual Fee	470.00
8644	Licenses for possession and use of less than	
8645	10,000 curies of radioactive material in	
8646	sealed sources for irradiation of materials	
8647	in which the source is exposed for	
8648	irradiation purposes	
8649	New License/Renewal	1,670.00
8650	Annual Fee	870.00
8651	Licenses for possession and use of 10,000	
8652	curies or more of radioactive material in	
8653	sealed sources for irradiation of materials	
8654	in which the source is exposed for	
8655	irradiation purposes	
8656	New License/Renewal	3,340.00
8657	Annual Fee	1,740.00
8658	Licenses to distribute items containing	
8659	radioactive material that require device	
8660	review to persons exempt from the licensing	
8661	requirements of R313-19, except specific	
8662	licenses authorizing redistribution of	
8663	items that have been authorized for	
8664	distribution to persons exempt from the	
8665	licensing requirements of R313-19	
8666	New License/Renewal	700.00
8667	Annual Fee	290.00
8668	Licenses to distribute items containing	
8669	radioactive material or quantities of	
8670	radioactive material that do not require	
571	device evaluation to persons exempt	

8672	from the licensing requirements of R313-19,	
8673	except for specific licenses authorizing	
8674	redistribution of items that have been	
8675	authorized for distribution to persons	
8676	exempt from the licensing requirements	
8677	of R313-19	
8678	New License/Renewal	700.00
8679	Annual Fee	290.00
8680	Licenses to distribute items containing	
8681	radioactive material that require sealed	
8682	source and/or device review to persons	
8683	generally licensed under R313-21, except	
8684	specific licenses authorizing redistribution	
8685	of items that have been authorized for	
8686	distribution to persons generally licensed	
8687	under R313-21	
8688	New License/Renewal	700.00
8689	Annual Fee	290.00
8690	Licenses to distribute items containing	
8691	radioactive material or quantities of	
8692	radioactive material that do not require	
8693	sealed source and/or device review to	
8694	persons generally licensed under R313-21,	
8695	except specific licenses authorizing	
8696	redistribution of items that have been	
8697	authorized for distribution to persons	
8698	generally licensed under R313-21	
8699	New License/Renewal	700.00
8700	Annual Fee	290.00
8701	Licenses of broad scope for possession	
8702	and use of radioactive material for	
8703	research and development which do not	
8704	authorize commercial distribution	
8705	New License/Renewal	2,320.00
8706	Annual Fee	1,480.00

8707	Licenses for possession and use of	
8708	radioactive material for research and	
8709	development, which do not authorize	
8710	commercial distribution	
8711	New License/Renewal	700.00
8712	Annual Fee	470.00
8713	All other specific radioactive material	
8714	licenses	
8715	New License/Renewal	440.00
8716	Annual Fee	260.00
8717	Licenses that authorize services for other	
8718	licensees, except licenses that authorize	
8719	leak testing or waste disposal services	
8720	which are subject to the fees specified for	
8721	the listed services	
8722	New License/Renewal	320.00
8723	Annual Fee	210.00
8724	Licenses that authorize services for leak	
8725	testing only	
8726	New License/Renewal	150.00
8727	Annual Fee	80.00
8728	Radioactive Waste Disposal	
8729	Licenses specifically authorizing the	
8730	receipt of waste radioactive material	
8731	from other persons for the purpose of	
8732	commercial disposal by land by the	
8733	licensee	
8734	New Application	
8735	(a) Siting application:	Actual costs
8736		up to
8737		
8738		100,000.00
8739		
8740	(b) License application	Actual costs
741		up to

8742		500,000.00
8743		
8744	Renewal	Actual cost
8745		up to
8746		500,000.00
8747		
8748	Pre-licensing and operations review and consultation on	
8749	commercial low-level radioactive	
8750	waste facilities, per hour	60.00
8751	Licenses specifically authorizing the	
8752	receipt of waste radioactive material	
8753	from other persons for the purpose of	
8754	packaging or repackaging the material.	
8755	The licensee will dispose of the material	
8756	by transfer to another person authorized	
8757	to receive or dispose of the material	
8758	New License/Renewal	3,190.00
8759	Annual Fee	1,380.00
8760	Licenses specifically authorizing the	
8761	receipt of prepackaged waste radioactive	
8762	material from other persons. The	
8763	licensee will dispose of the material by	
8764	transfer to another person authorized to	
8765	receive or dispose of the material	
8766	New License/Renewal	700.00
8767	Annual Fee	550.00
8768	Licenses authorizing packing of radioactive	
8769	waste for shipment to waste disposal site	
8770	where licensee does not take possession of	
8771	waste material	
8772	New License/Renewal	440.00
8773	Annual Fee	260.00
8774	Well Logging, Well Surveys, and Tracer Studies	
8775	Licenses for possession and use of	
8776	radioactive material for well logging,	

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8777	well surveys, and tracer studies other than	
8778	field flooding tracer studies	
8779	New License/Renewal	1,670.00
8780	Annual Fee	1,050.00
8781	Licenses for possession and use of radioactive	
8782	material for field flooding tracer studies	
8783	New License/Renewal	Actual Cost
8784	Annual Fee	2,000.00
8785	Nuclear Laundries	
8786	Licenses for commercial collection and	
8787	laundry of items contaminated with	
8788	radioactive material	
8789	New License/Renewal	1,670.00
8790	Annual Fee	1,190.00
8791	Human Use of Radioactive Material	
8792	Licenses for human use of radioactive	
8793	material in sealed sources contained	
8794	in teletherapy devices	
8795	New License/Renewal	1,090.00
8796	Annual Fee	640.00
8797	Licenses of broad scope issued to	
8798	medical institutions or two or more	
8799	physicians authorizing research and	
8800	development, including human use of	
8801	radioactive material, except licenses for	
8802	radioactive material in sealed sources	
8803	contained in teletherapy devices	
8804	New License/Renewal	2,320.00
8805	Annual Fee	1,480.00
8806	Other licenses issued for human use of radioactive	
8807	material, except licenses for use of	
8808	radioactive material contained in	
8809	teletherapy devices	
8810	New License/Renewal	700.00
8811	Annual Fee	550.00

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8812	Civil Defense	
8813	Licenses for possession and use of	
8814	radioactive material for civil defense	
8815	activities	
8816	New License/Renewal	700.00
8817	Annual Fee	190.00
8818	Power Source	
8819	Licenses for the manufacture and	
8820	distribution of encapsulated	
8821	radioactive material wherein the decay	
8822	energy of the material is used as a	
8823	source for power	
8824	New License/Renewal	5,510.00
8825	Annual Fee	1,260.00
8826	Plan Reviews	
8827	Review of plans for decommissioning,	
8828	decontamination, reclamation, waste disposal pursuant	
8829	to R313-15-1002, or site restoration activities	400.00 +
8830	Added cost above 8 hours, per hour	60.00
8831	Investigation of a misadministration by a third	
8832	party as defined in R313-30-5 or in R313-32-2,	
8833	as applicable	Actual Cost
8834	General License	
8835	Measuring, gauging and control devices	
8836	Initial registration/renewal for first year	20.00
8837	Annual fee after initial registration/renewal	20.00
8838	In Vitro Testing	
8839	Initial registration/renewal for first year	20.00
8840	Annual fee after initial registration/renewal	20.00
8841	Depleted Uranium	
8842	Initial registration/renewal for first year	20.00
8843	Annual fee after initial registration/renewal	20.00
8844	Charge for Late Payment of Fees, for all	
8845	fees, per 30 days late	25.00
8846	Specialized Computer-Generated Information,	

8847	per hour	50.00
8848	Publication costs for making public notice	
8849	of required actions	Actual Cost
8850	Reciprocity Fees	
8851	Licenses who conduct the activities under the	
8852	reciprocity provisions of R313-19-30	
8853	Initial Filing of Application	Full Annual
8854		for Specific
8855		Category of User
8856		Listed Above
8857	Each Revision	200.00
8858	Expedited application review. Applicable	
8859	when, by mutual consent of the	
8860	applicant and affected staff, an	
8861	application request is taken out of date	
8862	order and processed by staff	
8863	per hour	75.00
8864	Management and oversight of impounded	
8865	radioactive material	Actual Cost
8866	License amendment, for greater than	
8867	three applications in a calendar year	200.00
8868	Division of Water Quality	
8869	Water Quality Regulations	
8870	Complete set	30.00
8871	Water Quality Regulations	
8872	R317-1, 2, 5, 6, 7; R317-4, 10 and 100	2.00
8873	Water Quality Regulations, R317-3	10.00
8874	Water Quality Regulations, R317-8	10.00
8875	305(b) Water Quality Report	10.00
8876	Report Entitled: Utah's Lakes and Reservoirs-	
8877	Inventory and Classification of Utah's Priority	
8878	Lakes and Reservoirs	50.00
8879	Operator Certification	
8880	Certification Examination	35.00
8881	Renewal of Certificate	10.00



# Environmental Quality Code

# Water Quality Act

# Utah Code -- Title 19 -- Chapter 05 -- Water Quality Act

Code in HTML Format with Links to [Zipped](#) WordPerfect

Updated: 12 July 2001

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**19-5-101 Short title.**

[WP Zipped](#) -- 3,293 bytes -- Last Update 15-Sep-94

**19-5-102 Definitions.**

[WP Zipped](#) -- 3,753 bytes -- Last Update 12-Jun-01

**19-5-103 Water Quality Board -- Members of board -- Appointment -- Terms -- Organization -- Meetings -- Per diem and expenses.**

[WP Zipped](#) -- 3,750 bytes -- Last Update 18-Apr-01

**19-5-104 Powers and duties of board.**

[WP Zipped](#) -- 5,468 bytes -- Last Update 18-Apr-01

**19-5-105 Rulemaking authority and procedure.**

[WP Zipped](#) -- 3,878 bytes -- Last Update 15-Sep-94

**19-5-106 Executive secretary -- Appointment -- Duties.**

[WP Zipped](#) -- 3,255 bytes -- Last Update 27-Jun-95

**19-5-107 Discharge of pollutants unlawful -- Discharge permit required.**

[WP Zipped](#) -- 2,595 bytes -- Last Update 29-Apr-98

**19-5-108 Discharge permits -- Requirements and procedure for issuance.**

[WP Zipped](#) -- 2,607 bytes -- Last Update 19-Sep-95

**19-5-109 Grounds for revocation, modification, or suspension of discharge permit.**

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**19-5-110 Designation by governor of areas with quality control problems -- Classification of waters -- Adoption of standards of quality.**

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**19-5-111 Notice of violations -- Hearings.**

[WP Zipped](#) -- 3,718 bytes -- Last Update 15-Sep-94

**19-5-112 Hearings conducted by board -- Hearing on denial or revocation of permit conducted by executive director.**

[WP Zipped](#) -- 2,312 bytes -- Last Update 27-Jun-95

**19-5-113 Power of board to enter property for investigation -- Records and reports required of owners or operators.**

[WP Zipped](#) -- 2,566 bytes -- Last Update 27-Jun-95

**19-5-114 Spills or discharges of oil or other substance -- Notice to executive secretary.**

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**19-5-115 Violations -- Penalties -- Civil actions by board -- Ordinances and rules of political subdivisions.**

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**19-5-116 Limitation on effluent limitation standards for BOD, SS, Coliforms, and pH for domestic or municipal sewage.**

[WP Zipped](#) -- 4,092 bytes -- Last Update 15-Sep-94

**19-5-117 Purpose and construction of chapter.**

WP Zipped -- 2,283 bytes -- Last Update 30-Apr-96

**19-5-118 Chapter deemed auxiliary and supplementary to other laws.**

WP Zipped -- 3,481 bytes -- Last Update 15-Sep-94

**19-5-119 State permits not required where federal government has primary responsibility.**

WP Zipped -- 3,522 bytes -- Last Update 15-Sep-94

**19-5-120 Sewage permit program fee.**

WP Zipped -- 2,196 bytes -- Last Update 27-Jun-95

**19-5-121 Underground wastewater disposal systems -- Certification required to design, inspect, maintain, or conduct percolation or soil tests -- Exemptions -- Rules -- Fees.**

WP Zipped -- 3,064 bytes -- Last Update 18-Apr-01

**19-5-122 Underground wastewater disposal systems -- Fee imposed on new systems.**

WP Zipped -- 2,249 bytes -- Last Update 18-Apr-01

**19-5-123 Underground Wastewater Disposal System Restricted Account created -- Contents -- Use of account monies.**

WP Zipped -- 2,049 bytes -- Last Update 18-Apr-01



means this portion of the Utah Code has been modified since the last update on 25 April 2001.

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*Last revised: 12 July 2001*

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**19-5-104. Powers and duties of board.**

(1) The board has the following powers and duties, but the board shall give priority to pollution that results in hazards to the public health:

(a) develop programs for the prevention, control, and abatement of new or existing pollution of the waters of the state;

(b) advise, consult, and cooperate with other agencies of the state, the federal government, other states, and interstate agencies, and with affected groups, political subdivisions, and industries to further the purposes of this chapter;

(c) encourage, participate in, or conduct studies, investigations, research, and demonstrations relating to water pollution and causes of water pollution as the board finds necessary to discharge its duties;

(d) collect and disseminate information relating to water pollution and the prevention, control, and abatement of water pollution;

(e) adopt, modify, or repeal standards of quality of the waters of the state and classify those waters according to their reasonable uses in the interest of the public under conditions the board may prescribe for the prevention, control, and abatement of pollution;

(f) make rules in accordance with Title 63, Chapter 46a, Utah Administrative Rulemaking Act, taking into account Subsection (2), to:

(i) implement the awarding of construction loans to political subdivisions and municipal authorities under Section 11-8-2, including:

(A) requirements pertaining to applications for loans;

(B) requirements for determination of eligible projects;

(C) requirements for determination of the costs upon which loans are based, which costs may include engineering, financial, legal, and administrative expenses necessary for the construction, reconstruction, and improvement of sewage treatment plants, including major interceptors, collection systems, and other facilities appurtenant to the plant;

(D) a priority schedule for awarding loans, in which the board may consider in addition to water pollution control needs any financial needs relevant, including per capita cost, in making a determination of priority; and

(E) requirements for determination of the amount of the loan;

(ii) implement the awarding of loans for nonpoint source projects pursuant to Section 73-10c-4.5;

(iii) set effluent limitations and standards subject to Section 19-5-116;

(iv) implement or effectuate the powers and duties of the board; and

(v) protect the public health for the design, construction, operation, and maintenance of underground wastewater disposal systems, liquid scavenger operations, and vault and earthen pit privies;

(g) issue, modify, or revoke orders:

(i) prohibiting or abating discharges;

(ii) requiring the construction of new treatment works or any parts of them, or requiring the modification, extension, or alteration of existing treatment works as specified by board rule or any parts of them, or the adoption of other remedial measures to prevent, control, or abate pollution;

(iii) setting standards of water quality, classifying waters or evidencing any other determination by the board under this chapter; and

(iv) requiring compliance with this chapter and with rules made under this chapter;

(h) review plans, specifications, or other data relative to disposal systems or any part of disposal systems, and issue construction permits for the installation or modification of treatment works or any parts of them;

(i) after public notice and opportunity for a public hearing, issue, continue in effect, revoke, modify, or deny discharge permits under reasonable conditions the board may prescribe to control the management of sewage sludge or to prevent or control the discharge of pollutants, including effluent limitations for the discharge of wastes into the waters of the state;

(j) give reasonable consideration in the exercise of its powers and duties to the economic impact of

water pollution control on industry and agriculture;

(k) exercise all incidental powers necessary to carry out the purposes of this chapter, including delegation to the department of its duties as appropriate to improve administrative efficiency;

(l) meet the requirements of federal law related to water pollution;

(m) establish and conduct a continuing planning process for control of water pollution including the specification and implementation of maximum daily loads of pollutants;

(n) make rules governing inspection, monitoring, recordkeeping, and reporting requirements for underground injections and require permits for them, to protect drinking water sources, except for wells, pits, and ponds covered by Section 40-6-5 regarding gas and oil, recognizing that underground injection endangers drinking water sources if:

(i) injection may result in the presence of any contaminant in underground water which supplies or can reasonably be expected to supply any public water system, as defined in Section 19-4-102; and

(ii) the presence of the contaminant may result in the public water system not complying with any national primary drinking water standards or may otherwise adversely affect the health of persons;

(o) make rules governing sewage sludge management, including permitting, inspecting, monitoring, recordkeeping, and reporting requirements;

(p) adopt and enforce rules and establish fees to cover the costs of testing for certification of operators of treatment works and sewerage systems operated by political subdivisions; and

(q) notwithstanding the provisions of Section 19-4-112, make rules governing design and construction of irrigation systems which convey sewage treatment facility effluent of human origin in pipelines under pressure, unless contained in surface pipes wholly on private property and for agricultural purposes, and which are constructed after May 4, 1998.

(2) In determining eligible project costs and in establishing priorities pursuant to Subsection (1)(f)(i), the board shall take into consideration the availability of federal grants.

(3) In establishing certification rules under Subsection (1)(p), the board shall:

(a) base the requirements for certification on the size, treatment process type, and complexity of the treatment works and sewerage systems operated by political subdivisions;

(b) allow operators until three years after the date of adoption of the rules to obtain initial certification;

(c) allow new operators one year from the date they are hired by a treatment plant or sewerage system or three years after the date of adoption of the rules, whichever occurs later, to obtain certification;

(d) issue certification upon application and without testing, at a grade level comparable

to the grade of current certification to operators who are currently certified under the voluntary certification plan for wastewater works operators as recognized by the board; and

(e) issue a certification upon application and without testing that is valid only at the treatment works or sewerage system where that operator is currently employed if the operator:

(i) is in charge of and responsible for the treatment works or sewerage system on March 16, 1991;

(ii) has been employed at least ten years in the operation of that treatment works or sewerage system prior to March 16, 1991; and

(iii) demonstrates to the board his capability to operate the treatment works or sewerage system at which he is currently employed by providing employment history and references as required by the board.

Amended by Chapter 274, 2001 General Session

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*last revised: Thursday, July 12, 2001*

**19-5-106. Executive secretary -- Appointment -- Duties.**

The executive secretary shall be appointed by the executive director with the approval of the board, shall serve under the administrative direction of the executive director, and has the following duties:

- (1) to develop programs for the prevention, control, and abatement of new or existing pollution of the waters of the state;
- (2) to advise, consult, and cooperate with other agencies of the state, the federal government, other states and interstate agencies, and with affected groups, political subdivisions, and industries in furtherance of the purposes of this chapter;
- (3) to employ full-time employees as necessary to carry out the provisions of this chapter;
- (4) as authorized by the board and subject to the provisions of this chapter, to authorize any employee or representative of the department to enter at reasonable times and upon reasonable notice in or upon public or private property for the purposes of inspecting and investigating conditions and plant records concerning possible water pollution;
- (5) to encourage, participate in, or conduct studies, investigations, research, and demonstrations relating to water pollution and causes of water pollution as necessary for the discharge of duties assigned under this chapter, including the establishment of inventories of pollution sources;
- (6) to collect and disseminate information relating to water pollution and the prevention, control, and abatement of water pollution;
- (7) to develop programs for the management of sewage sludge;
- (8) as authorized by the board and subject to the provisions of this chapter, to enforce rules made by the board through the issuance of orders which may be subsequently amended or revoked by the board, which orders may include:
  - (a) prohibiting or abating discharges of wastes into the waters of the state;
  - (b) requiring the construction of new control facilities or any parts of them or the modification, extension, or alteration of existing control facilities or any parts of them, or the adoption of other remedial measures to prevent, control, or abate water pollution; and
  - (c) prohibiting any other violation of this chapter or rules made under this chapter;
- (9) to review plans, specifications, or other data relative to pollution control systems or any part of the systems provided for in this chapter;
- (10) as authorized by the board and subject to the provisions of this chapter, to exercise all incidental powers necessary to carry out the purposes of this chapter, including certification to any state or federal authorities for tax purposes only if the fact of construction, installation, or acquisition of any facility, land, or building, machinery, or equipment, or any part of them conforms with this chapter;
- (11) to cooperate, where the board finds appropriate, with any person in studies and research regarding water pollution and its control, abatement, and prevention; and
- (12) to represent the state with the specific concurrence of the executive director in all matters pertaining to water pollution, including interstate compacts and other similar agreements.

Amended by Chapter 114, 1995 General Session  
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*Last revised: Thursday, July 12, 2001*

# Utah Administrative Rules



# Utah Code -- Title 63 -- Chapter 46a -- Utah Administrative Rulemaking Act

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**[63-46a-3](#) When rulemaking is required.**

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**[63-46a-4](#) Rulemaking procedure.**

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**63-46a-4. Rulemaking procedure.**

(1) Except as provided in Sections 63-46a-6 and 63-46a-7, when making, amending, or repealing a rule agencies shall comply with:

- (a) the requirements of this section;
- (b) consistent procedures required by other statutes;
- (c) applicable federal mandates; and
- (d) rules made by the division to implement this chapter.

(2) Subject to the requirements of this chapter, each agency shall develop and use flexible approaches in drafting rules that meet the needs of the agency and that involve persons affected by the agency's rules.

(3) (a) Each agency shall file its proposed rule and rule analysis with the division.

(b) Rule amendments shall be marked with new language underlined and deleted language struck out.

(c) (i) The division shall publish the information required under Subsection (3) on the rule analysis and the text of the proposed rule in the next issue of the bulletin.

(ii) For rule amendments, only the section or subsection of the rule being amended need be printed.

(iii) If the director determines that the rule is too long to publish, the director shall publish the rule analysis and shall publish the rule by reference to a copy on file with the division.

(4) Prior to filing a rule with the division, the department head shall consider and comment on the fiscal impact a rule may have on businesses.

(5) The rule analysis shall contain:

- (a) a summary of the rule or change;
- (b) the purpose of the rule or reason for the change;
- (c) the statutory authority or federal requirement for the rule;
- (d) the anticipated cost or savings to:

(i) the state budget;

(ii) local governments; and

(iii) other persons;

(e) the compliance cost for affected persons;

(f) how interested persons may review the full text of the rule;

(g) how interested persons may present their views on the rule;

(h) the time and place of any scheduled public hearing;

(i) the name and telephone number of an agency employee who may be contacted about the rule;

(j) the name of the agency head or designee who authorized the rule;

(k) the date on which the rule may become effective following the public comment period; and

(l) comments by the department head on the fiscal impact the rule may have on businesses.

(6) (a) For a rule being repealed and reenacted, the rule analysis shall contain a summary that generally includes the following:

(i) a summary of substantive provisions in the repealed rule which are eliminated from the enacted rule; and

(ii) a summary of new substantive provisions appearing only in the enacted rule.

(b) The summary required under this Subsection (6) is to aid in review and may not be used to contest any rule on the ground of noncompliance with the procedural requirements of this chapter.

(7) A copy of the rule analysis shall be mailed to all persons who have made timely request of the agency for advance notice of its rulemaking proceedings and to any other person who, by statutory or federal mandate or in the judgment of the agency, should also receive notice.

(8) Following the publication date, the agency shall allow at least 30 days for public comment on the rule.

(9) (a) Except as provided in Sections 63-46a-6 and 63-46a-7, a proposed rule becomes effective on any date specified by the agency that is no fewer than 30 nor more than 120 days after the publication date.

(b) The agency shall provide notice of the rule's effective date to the division in the form required by the division.

(c) The notice of effective date may not provide for an effective date prior to the date it is received by the division.

(d) The division shall publish notice of the effective date of the rule in the next issue of the bulletin.

(e) A proposed rule lapses if a notice of effective date or a change to a proposed rule is not filed with the division within 120 days of publication.

Amended by Chapter 138, 2001 General Session

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*Last revised: Thursday, July 12, 2001*

# Utah Water Quality Rules

**ADMINISTRATIVE RULES  
FOR  
GROUND WATER QUALITY PROTECTION**

**R317-6, UTAH ADMINISTRATIVE CODE**



**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF WATER QUALITY**

**EFFECTIVE DATE OF LAST REVISION - MARCH 20, 1995**

**R317. Environmental Quality, Water Quality.**

**R317-6. Ground Water Quality Protection.**

**R317-6-1. Definitions.**

1.1 "Aquifer" means a geologic formation, group of geologic formations or part of a geologic formation that contains sufficiently saturated permeable material to yield usable quantities of water to wells and springs.

1.2 "Background Concentration" means the concentration of a pollutant in ground water upgradient or lateral hydraulically equivalent point from a facility, practice or activity which has not been affected by that facility, practice or activity.

1.3 "Best Available Technology" means the application of design, equipment, work practice, operation standard or combination thereof at a facility to effect the maximum reduction of a pollutant achievable by available processes and methods taking into account energy, public health, environmental and economic impacts and other costs.

1.4 "Best Available Technology Standard" means a performance standard or pollutant concentration achievable through the application of best available technology.

1.5 "Board" means the Utah Water Quality Board.

1.6 "Class TDS limit" means the upper boundary of the TDS range for an applicable class as specified in R317-6-3.

1.7 "Community Drinking Water System" means a public drinking water system which serves at least fifteen service connections used by year-round residents or regularly serves at least twenty-five year-round residents.

1.8 "Comparable Quality (Source)" means a potential alternative source or sources of water supply which has the same general quality as the ground water source.

1.9 "Comparable Quantity (Source)" means a potential alternative source of water supply capable of reliably supplying water in quantities sufficient to meet the year-round needs of the users served by the ground water source.

1.10 "Compliance Monitoring Point" means a well, seep, spring, or other sampling point used to determine compliance with applicable permit limits.

1.11 "Contaminant" means any physical, chemical, biological or radiological substance or matter in water.

1.12 "Conventional Treatment" means normal and usual treatment of water for distribution in public drinking water supply systems including flocculation, sedimentation, filtration, disinfection and storage.

1.13 "Discharge" means the release of a pollutant directly or indirectly into subsurface waters of the state.

1.14 "Existing Facility" means a facility or activity that was in operation or under construction after August 14, 1989 and before February 10, 1990.

1.15 "Economically Infeasible" means, in the context of a public drinking water source, the cost to the typical water user for replacement water would exceed the community's ability to pay.

1.16 "Executive Secretary" means the Executive Secretary of the Utah Water Quality Board.

1.17 "Facility" means any building, structure, processing, handling, or storage facility, equipment or activity; or contiguous group of buildings, structures, or processing, handling or storage facilities, equipment, or activities or combination thereof.

1.18 "Gradient" means the change in total water pressure head per unit of distance.

1.19 "Ground Water" means subsurface water in the zone of saturation including perched ground water.

1.20 "Ground Water Quality Standards" means numerical contaminant concentration levels adopted by the Board in or under R317-6-2 for the protection of the subsurface waters of the State.

1.21 "Infiltration" means the movement of water from the land surface into the pores of rock, soil or sediment.

1.22 "Institutional Constraints" means legal or other restrictions that preclude replacement water delivery and which cannot be alleviated through

administrative procedures or market transactions.

1.23 "Lateral hydraulically equivalent point" means a point located hydraulically equal to a facility and in the same ground water with similar geochemistry such that the ground water at that point has not been affected by the facility.

1.24 "Limit of Detection" means the concentration of a chemical below which it can not be detected using currently accepted sampling and analytical techniques for drinking water as determined by the U.S. Environmental Protection Agency.

1.25 "New Facility" means a facility for which construction or modification is initiated after February 9, 1990.

1.26 "Permit limit" means a ground water pollutant concentration limitation specified in a Ground Water Discharge Permit and may include protection levels, class TDS limits, ground water quality standards, alternate concentration limits, permit-specific ground water quality standards, or limits stipulated in the application and use of best available technology. For facilities permitted by rule under R317-6-6.2, a permit limit is a ground water pollutant concentration limitation specified in R317-6-6.2.B.

1.27 "Person" means any individual, corporation, partnership, association, company or body politic, including any agency or instrumentality of the federal, state, or local government.

1.28 "Point of Discharge" means the area within outermost location at which effluent or leachate has been stored, applied, disposed of, or discharged; for a diked facility, the outermost edge of the dikes.

1.29 "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, sewage sludge, garbage, munitions, trash, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into waters of the state.

1.30 "Pollution" means such contamination, or other alteration of the physical, chemical, or biological properties of any waters of the State, or such discharge of any liquid, gaseous, or solid substance into any waters of the state as will create a nuisance or render such waters harmful or detrimental or injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

1.31 "Protection Level" means the ground water pollutant concentration levels specified in R317-6-4.

1.32 "Substantial Treatment" means treatment of water utilizing specialized treatment methods including ion exchange, reverse osmosis, electrodialysis and other methods needed to upgrade water quality to meet standards for public water systems.

1.33 "Technology Performance Monitoring" means the evaluation of a permitted facility to determine compliance with best available technology standards.

1.34 "Total Dissolved Solids (TDS)" means the quantity of dissolved material in a sample of water which is determined by weighing the solid residue obtained by evaporating a measured volume of a filtered sample to dryness; or for many waters that contain more than 1000 mg/l, the sum of the chemical constituents.

1.35 "Radius of Influence" means the radial distance from the center of a well bore to the point where there is no lowering of the water table or potentiometric surface because of pumping of the well; the edge of the cone of depression.

1.36 "Upgradient" means a point located hydraulically above a facility such that the ground water at that point has not been impacted by discharges from the facility.

1.37 "Vadose Zone" means the zone of aeration including soil and capillary water. The zone is bound above by the land surface and below by the water table.

1.38 "Waste" see "Pollutant"

1.39 "Water Table" means the top of the saturated zone of a body of unconfined ground water at which the pressure is equal to that of the atmosphere.



1.40 "Water Table Aquifer" means an aquifer extending downward from the water table to the first confining bed.

1.41 "Waters of the State" means all streams, lakes, ponds, marshes, water courses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof; except bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance or a public health hazard, or a menace to fish and wildlife, shall not be considered to be "waters of the state" under this definition.

1.42 "Zone of Influence" means the area contained by the outer edge of the drawdown cone of a water well.

#### **R317-6-2. Ground Water Quality Standards.**

2.1 The following Ground Water Quality Standards as listed in Table I are adopted for protection of ground water quality.

TABLE 1  
GROUND WATER QUALITY STANDARDS

Parameter	Milligrams per liter (mg/l) unless noted otherwise and based on analysis of filtered sample except for Mercury and organic compounds
<b>PHYSICAL CHARACTERISTICS</b>	
Color (units)	15.0
Corrosivity (characteristic)	noncorrosive
Odor (threshold number)	3.0
pH (units)	6.5-8.5
<b>INORGANIC CHEMICALS</b>	
Cyanide (free)	0.2
Fluoride	4.0
Nitrate (as N)	10.0
Nitrite (as N)	1.0
Total Nitrate/Nitrite (as N)	10.0
<b>METALS</b>	
Arsenic	0.05
Barium	2.0
Cadmium	0.005
Chromium	0.1
Copper	1.3
Lead	0.015
Mercury	0.002
Selenium	0.05
Silver	0.1
Zinc	5.0
<b>ORGANIC CHEMICALS</b>	
Pesticides and PCBs	
Alachlor	0.002
Aldicarb	0.003
Aldicarb sulfone	0.002
Aldicarb sulfoxide	0.004
Atrazine	0.003
Carbofuran	0.04
Chlordane	0.002

Dibromochloropropane	0.0002
2, 4-D	0.07
Endrin	0.002
Ethylene Dibromide	0.00005
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Lindane	0.0002
Methoxychlor	0.04
Polychlorinated Biphenyls	0.0005
Pentachlorophenol	0.001
Toxaphene	0.003
2, 4, 5-TP (Silvex)	0.05

#### VOLATILE ORGANIC CHEMICALS

Benzene	0.005
Carbon tetrachloride	0.005
1, 2 - Dichloroethane	0.005
1, 1 - Dichloroethylene	0.007
1, 1, 1 - Trichloroethane	0.200
para - Dichlorobenzene	0.075
o-Dichlorobenzene	0.6
cis-1,2 dichloroethylene	0.07
trans-1,2 dichloroethylene	0.1
1,2 Dichloropropane	0.005
Ethylbenzene	0.7
Monochlorobenzene	0.1
Styrene	0.1
Tetrachloroethylene	0.005
Toluene	1
Trichloroethylene	0.005
Vinyl chloride	0.002
Xylenes (Total)	10

#### OTHER ORGANIC CHEMICALS

Trihalomethanes	0.1
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#### RADIONUCLIDES

The following are the maximum contaminant levels for Radium-226 and Radium-228, and gross alpha particle radioactivity, beta particle radioactivity, and photon radioactivity:

Combined Radium-226 and Radium-228	5pCi/l
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Gross alpha particle activity, including Radium-226 but excluding Radon and Uranium	15pCi/l
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Beta particle and photon radioactivity from man-made radionuclides	The average annual concentration of beta particle and photon radioactivity from man-made radionuclides shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/year.
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Except for the radionuclides listed below, the concentration of man-made radionuclides causing four millirem total body or organ dose equivalents shall be calculated on the basis of a two liter per day drinking water intake using the 168 hour data listed in "Maximum Permissible Body Burden and Maximum Permissible Concentration Exposure", NBS Handbook 69 as amended August 1962, U.S. Department

of Commerce. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed four millirem/year.

Average annual concentrations assumed to produce a total body or organ dose of four millirem/year:

Radionuclide	Critical Organ	pCi per liter
Tritium	Total Body	20,000
Strontium-90	Bone Marrow	8

2.2 A permit specific ground water quality standard for any pollutant not specified in Table 1 may be established by the Executive Secretary at a level that will protect public health and the environment. This permit limit may be based on U.S. Environmental Protection Agency maximum contaminant level goals, health advisories, risk based contaminant levels, standards established by other regulatory agencies and other relevant information.

### **R317-6-3. Ground Water Classes.**

#### **3.1 GENERAL**

The following ground water classes are established: Class IA - Pristine Ground Water; Class IB - Irreplaceable Ground Water; Class IC - Ecologically Important Ground Water; Class II - Drinking Water Quality Ground Water; Class III - Limited Use Ground Water; Class IV - Saline Ground Water.

#### **3.2 CLASS IA - PRISTINE GROUND WATER**

Class IA ground water has the following characteristics:

A. Total dissolved solids of less than 500 mg/l.

B. No contaminant concentrations that exceed the ground water quality standards listed in Table 1.

#### **3.3 CLASS IB - IRREPLACEABLE GROUND WATER**

Class IB ground water is a source of water for a community public drinking water system for which no reliable supply of comparable quality and quantity is available because of economic or institutional constraints.

#### **3.4 CLASS IC - ECOLOGICALLY IMPORTANT GROUND WATER**

Class IC ground water is a source of ground water discharge important to the continued existence of wildlife habitat.

#### **3.5 CLASS II - DRINKING WATER QUALITY GROUND WATER**

Class II ground water has the following characteristics:

A. Total dissolved solids greater than 500 mg/l and less than 3000 mg/l.

B. No contaminant concentrations that exceed ground water quality standards in Table 1.

#### **3.6 CLASS III - LIMITED USE GROUND WATER**

Class III ground water has one or both of the following characteristics:

A. Total dissolved solids greater than 3000 mg/l and less than 10,000 mg/l, or;

B. One or more contaminants that exceed the ground water quality standards listed in Table 1.

#### **3.7 CLASS IV - SALINE GROUND WATER**

Class IV ground water has total dissolved solids greater than 10,000 mg/l.

### **R317-6-4. Ground Water Class Protection Levels.**

#### **4.1 GENERAL**

A. Protection levels are ground water pollutant concentration limits, set by ground water class, for the operation of facilities that discharge or would probably discharge to ground water.

B. For the physical characteristics (color, corrosivity, odor, and pH) and radionuclides listed in Table 1, the values listed are the protection levels for all ground water classes.

#### **4.2 CLASS IA PROTECTION LEVELS**

A. Class IA ground water will be protected to the maximum extent feasible from degradation due to facilities that discharge or would probably discharge to ground water.

B. The following protection levels will apply:

1. Total dissolved solids may not exceed the lesser of 1.1 times the background value or 500 mg/l.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.1 times the ground water quality standard value, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.1 times the background concentration or 0.1 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed to exceed the ground water quality standard.

#### 4.3 CLASS IB PROTECTION LEVELS

A. Class IB ground water will be protected as an irreplaceable source of drinking water.

B. The following protection levels will apply:

1. Total dissolved solids may not exceed the lesser of 1.1 times the background value or 2000 mg/l.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.1 times the ground water quality standard, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.1 times the background concentration or 0.1 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed to exceed the ground water quality standard.

#### 4.4 CLASS IC PROTECTION LEVELS

Class IC ground water will be protected as a source of water for potentially affected wildlife habitat. Limits on increases of total dissolved solids and organic and inorganic chemical compounds will be determined in order to meet applicable surface water standards.

#### 4.5 CLASS II PROTECTION LEVELS

A. Class II ground water will be protected for use as drinking water or other similar beneficial use with conventional treatment prior to use.

B. The following protection levels will apply:

1. Total dissolved solids may not exceed 1.25 times the background value.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.25 times the ground water quality standard, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.25 times the background concentration or 0.25 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed to exceed the ground water quality standard.

#### 4.6 CLASS III PROTECTION LEVELS

A. Class III ground water will be protected as a potential source of drinking water, after substantial treatment, and as a source of water for industry and agriculture.

B. The following protection levels will apply:

1. Total dissolved solids may not exceed 1.25 times the background concentration level.

2. When a contaminant is not present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 0.5 times the ground water quality standard, or the limit of detection.

3. When a contaminant is present in a detectable amount as a background concentration, the concentration of the pollutant may not exceed the greater of 1.5 times the background concentration or 0.5 times the ground water quality standard; however, in no case will the concentration of a pollutant be allowed

to exceed the ground water quality standard. If the background concentration exceeds the ground water quality standard no increase will be allowed.

#### 4.7 CLASS IV PROTECTION LEVELS

Protection levels for class IV ground water will be established to protect human health and the environment.

### **R317-6-5. Ground Water Classification for Aquifers.**

#### 5.1 GENERAL

A. When sufficient information is available, entire aquifers or parts thereof may be classified by the Board according to the quality of ground water contained therein and commensurate protection levels will be applied.

B. Ground water sources furnishing water to community drinking water systems with ground water meeting Class IA criteria are classified as Class IA.

#### 5.2 CLASSIFICATION AND RECLASSIFICATION PROCEDURE

A. The Board may initiate classification or reclassification.

B. Any person may petition the Board for classification and reclassification.

C. Boundaries for class areas will be delineated so as to enclose distinct ground water classes as nearly as known facts permit. Boundaries will be based on hydrogeologic properties, existing ground water quality and for Class IB and IC, current use. Parts of an aquifer may be classified differently.

D. The petitioner requesting reclassification will provide sufficient information to determine if reclassification is in the best interest of the beneficial users.

E. A petition for classification or reclassification shall include:

1. factual data supporting the proposed classification;
2. a description of the proposed ground waters to be classified or reclassified;
3. potential contamination sources;
4. ground water flow direction;
5. current beneficial uses of the ground water; and
6. location of all water wells in the area to be classified or reclassified.

F. One or more public hearings will be held to receive comment on classification and reclassification proposals.

G. The Board will determine the disposition of all petitions for classification and reclassification, except as provided in R317-6-5.2.H.

H. Ground water proximate to a facility for which an application for a ground water discharge permit has been made may be classified by the Executive Secretary for purposes of making permitting decisions.

### **R317-6-6. Implementation.**

#### 6.1 DUTY TO APPLY FOR A GROUND WATER DISCHARGE PERMIT

A. No person may construct, install, or operate any new facility or modify an existing or new facility, not permitted by rule under R317-6-6.2, which discharges or would probably result in a discharge of pollutants that may move directly or indirectly into ground water, including, but not limited to land application of wastes; waste storage pits; waste storage piles; landfills and dumps; large feedlots; mining, milling and metallurgical operations, including heap leach facilities; and pits, ponds, and lagoons whether lined or not, without a ground water discharge permit from the Executive Secretary. A ground water discharge permit application should be submitted at least 180 days before the permit is needed.

B. All persons who constructed, modified, installed, or operated any existing facility, not permitted by rule under R317-6-6.2, which discharges or would probably result in a discharge of pollutants that may move directly or indirectly into ground water, including, but not limited to: land application of wastes; waste storage pits; waste storage piles; landfills and dumps; large feedlots; mining, milling and metallurgical operations, including heap leach facilities; and pits, ponds, and lagoons whether lined or not, must have submitted a notification of the nature and location of the discharge to the Executive Secretary before February 10, 1990 and must submit an application for

a ground water discharge permit within one year after receipt of written notice from the Executive Secretary that a ground water discharge permit is required.

#### 6.2 GROUND WATER DISCHARGE PERMIT BY RULE

A. Except as provided in R317-6-6.2.C, the following facilities are considered to be permitted by rule and are not required to obtain a discharge permit under R317-6-6.1 or comply with R317-6-6.3 through R317-6-6.7, R317-6-6.9 through R317-6-6.11, R317-6-6.13, R317-6-6.16, R317-6-6.17 and R317-6-6.18:

1. facilities with effluent or leachate which has been demonstrated to the satisfaction of the Executive Secretary to conform and will not deviate from the applicable class TDS limits, ground water quality standards, protection levels or other permit limits and which does not contain any contaminant that may present a threat to human health, the environment or its potential beneficial uses of the ground water. The Executive Secretary may require samples to be analyzed for the presence of contaminants before the effluent or leachate discharges directly or indirectly into ground water. If the discharge is by seepage through natural or altered natural materials, the Executive Secretary may require samples of the solution be analyzed for the presence of pollutants before or after seepage;

2. water used for watering of lawns, gardens, or shrubs or for irrigation for the revegetation of a disturbed land area except for the direct land application of wastewater;

3. application of agricultural chemicals including fertilizers, herbicides and pesticides including but not limited to, insecticides fungicides, rodenticides and fumigants when used in accordance with current scientifically based manufacturer's recommendations for the crop, soil, and climate and in accordance with state and federal statutes, regulations, permits, and orders adopted to avoid ground water pollution;

4. water used for irrigated agriculture except for the direct land application of wastewater from municipal, industrial or mining facilities;

5. flood control systems including detention basins, catch basins and wetland treatment facilities used for collecting or conveying storm water runoff;

6. natural ground water seeping or flowing into conventional mine workings which re-enters the ground by natural gravity flow prior to pumping or transporting out of the mine and without being used in any mining or metallurgical process;

7. leachate which results entirely from the direct natural infiltration of precipitation through undisturbed materials;

8. wells and facilities regulated under the underground injection control (UIC) program;

9. land application of livestock wastes, within expected crop nitrogen uptake;

10. individual subsurface wastewater disposal systems approved by local health departments or large subsurface wastewater disposal systems approved by the Board;

11. produced water pits, and other oil field waste treatment, storage, and disposal facilities regulated by the Division of Oil, Gas, and Mining in accordance with Section 40-6-5(3)(d) and R649-9, Disposal of Produced Water;

12. reserve pits regulated by the Division of Oil, Gas and Mining in accordance with Section 40-6-5(3)(a) and R649-3-7, Drilling and Operating Practices;

13. storage tanks installed or operated under regulations adopted by the Utah Solid and Hazardous Waste Control Board;

14. coal mining operations or facilities regulated under the Coal Mining and Reclamation Act by the Utah Division of Oil, Gas, and Mining (DOGM). The submission of an application for ground water discharge permit under R317-6-6.2.C may be required only if the Executive Secretary, after consideration of recommendations, if any, by DOGM, determines that the discharge violates applicable ground water quality standards, applicable Class TDS limits, or is interfering with a reasonable foreseeable beneficial use of the ground water. DOGM is not required to establish any administrative or regulatory requirements which are in addition to the rules of DOGM for coal mining operations or facilities to implement these ground water regulations;

15. hazardous waste or solid waste management units managed or undergoing corrective action under R315-1 through R315-14;

16. Solid waste landfills permitted under the requirements of R315-303;

17. animal feeding operations, as defined in R317-8-3.5(2), which are not located within Zone 1 (100) feet for wells in a confined aquifer or Zone 2 (250 day time of travel) for wells and springs in unconfined aquifers, in accordance with the Public Drinking Water Rule R309-113, and which meet either of the following criteria:

a) operations which incorporate low volume liquid waste handling systems of less than 4 million gallons capacity, or

b. operations with fewer than the following numbers of animals confined:

i. 1,000 slaughter and feeder cattle,

ii. 700 mature dairy cattle, whether milked or dry cows,

iii. 2,500 swine each weighing over 25 kilograms (approximately 55 pounds), for facilities without animal waste collection and treatment systems approved by the Executive Secretary,

iv. 1,000,000 pounds steady state live animal weight of swine for facilities with animal waste collection and treatment systems for which a construction permit has been issued by the Executive Secretary

v. 500 horses,

vi. 10,000 sheep or lambs,

vii. 55,000 turkeys,

viii. 100,000 laying hens or broilers, if the facility has continuous over flow watering,

ix. 30,000 hens or broilers, if the facility has a liquid manure handling system,

x. 5,000 ducks, or

xi. 1,000 animal units

18. animal feeding operations which do not utilize liquid waste handling systems,

19. mining, processing or milling facilities handling less than 10 tons per day of metallic and/or nonmetallic ore and waste rock, not to exceed 2500 tons/year in aggregate unless the processing or milling uses chemical leaching;

20. pipelines and above-ground storage tanks;

21. drilling operations for metallic minerals, nonmetallic minerals, water, hydrocarbons, or geothermal energy sources when done in conformance with applicable regulations of the Utah Division of Oil, Gas, and Mining or the Utah Division of Water Rights;

22. land application of municipal sewage sludge for beneficial use, at or below the agronomic rate and in compliance with the requirements of 40 CFR 503, July 1, 1993 edition;

23. land application of municipal sewage sludge for mine-reclamation at a rate higher than the agronomic rate and in compliance with 40 CFR 503, July 1, 1993 edition;

24. municipal wastewater treatment lagoons receiving no wastewater from a significant industrial discharger as defined in R317-8-8.2(12); and

25. facilities and modifications thereto which the Executive Secretary determines after a review of the application will have a de minimis actual or potential effect on ground water quality

B. No facility permitted by rule under R317-6-6.2.A may cause ground water to exceed ground water quality standards or the applicable class TDS limits in R317-6-3.1 to R317-6-3.7. If the background concentration for affected ground water exceeds the ground water quality standard, the facility may not cause an increase over background. This section, R317-6-6.2B, does not apply to facilities undergoing corrective action under R317-6-6.15A.3.

C. The submission of an application for a ground water discharge permit may be required by the Executive Secretary for any discharge permitted by rule under R317-6-6.2 if it is determined that the discharge may be causing or is likely to cause increases above the ground water quality standards or applicable class TDS limits under R317-6-3 or otherwise is interfering or may interfere with probable future beneficial use of the ground water.

#### 6.3 APPLICATION REQUIREMENTS FOR A GROUND WATER DISCHARGE PERMIT

Unless otherwise determined by the Executive Secretary, the application for a permit to discharge wastes or pollutants to ground water shall include the following complete information:

A. The name and address of the applicant and the name and address of the owner of the facility if different than the applicant. A corporate application must be signed by an officer of the corporation. The name and address of the contact, if different than above, and telephone numbers for all listed names shall be included.

B. The legal location of the facility by county, quarter-quarter section, township, and range.

C. The name of the facility and the type of facility, including the expected facility life.

D. A plat map showing all water wells, including the status and use of each well, topography, springs, water bodies, drainages, and man-made structures within a one-mile radius of the discharge. The plat map must also show the location and depth of existing or proposed wells to be used for monitoring ground water quality.

E. Geologic, hydrologic, and agricultural description of the geographic area within a one-mile radius of the point of discharge, including soil types, aquifers, ground water flow direction, ground water quality, aquifer material, and well logs

F. The type, source, and chemical, physical, radiological, and toxic characteristics of the effluent or leachate to be discharged; the average and maximum daily amount of effluent or leachate discharged (gpd), the discharge rate (gpm), and the expected concentrations of any pollutant (mg/l) in each discharge or combination of discharges. If more than one discharge point is used, information for each point must be given separately.

G. Information which shows that the discharge can be controlled and will not migrate into or adversely affect the quality of any other waters of the state, including the applicable surface water quality standards, that the discharge is compatible with the receiving ground water, and that the discharge will comply with the applicable class TDS limits, ground water quality standards, class protection levels or an alternate concentration limit proposed by the facility.

H. For areas where the ground water has not been classified by the Board, information on the quality of the receiving ground water sufficient to determine the applicable protection levels;

I. The proposed monitoring plan, which includes a description, where appropriate, of the following:

1. ground water monitoring to determine ground water flow direction and gradient, background quality at the site, and the quality of ground water at the compliance monitoring point;

2. installation, use and maintenance of monitoring devices;

3. description of the compliance monitoring area defined by the compliance monitoring points including the dimensions and hydrologic and geologic data used to determine the dimensions;

4. monitoring of the vadose zone;

5. measures to prevent ground water contamination after the cessation of operation, including post-operational monitoring;

6. monitoring well construction and ground water sampling which conform to A Guide to the Selection of Materials for Monitoring Well Construction and Ground Water Sampling, (1983) and RCRA Ground Water Monitoring Technical Enforcement Guidance Manual (1986), unless otherwise specified by the Executive Secretary;

7. description and justification of parameters to be monitored.

J. The plans and specifications relating to construction, modification, and operation of discharge systems.

K. The description of the ground water most likely to be affected by the discharge, including water quality information of the receiving ground water prior to discharge, a description of the aquifer in which the ground water occurs, the depth to the ground water, the saturated thickness, flow direction, porosity, hydraulic conductivity, and flow systems characteristics.



L. The compliance sampling plan which includes, where appropriate, provisions for sampling of effluent and for flow monitoring in order to determine the volume and chemistry of the discharge onto or below the surface of the ground and a plan for sampling compliance monitoring points and appropriate nearby water wells. Sampling and analytical methods proposed in the application must conform with the most appropriate methods specified in the following references unless otherwise specified by the Executive Secretary:

1. Standard Methods for the Examination of Water and Wastewater, eighteenth edition, 1992; Library of Congress catalogue number: ISBN:0-87553-207-1.

2. E.P.A. Methods, Methods for Chemical Analysis of Water and Wastes, 1983; Stock Number EPA-600/4-79-020.

3. Techniques of Water Resource Investigation of the U.S. Geological Survey, (1982); Book 5, Chapter A3.

4. Monitoring requirements in 40 CFR parts 141 and 142, 1991 ed., Primary Drinking Water Regulations and 40 CFR parts 264 and 270, 1991 ed.

5. National Handbook of Recommended Methods for Water-Data Acquisition, GSA-GS edition; Book 85 AD-2777, U.S. Government Printing Office Stock Number 024-001-03489-1;

6. Manual of Analytical Methods for the Analysis of Pesticide residues in Humans and Environmental Samples, 1980; Stock Number EPA-600/8-80-038, U.S. Environmental Protection Agency.

M. A description of the flooding potential of the discharge site, including the 100-year flood plain, and any applicable flood protection measures.

N. Contingency plan for regaining and maintaining compliance with the permit limits and for reestablishing best available technology as defined in the permit.

O. Methods and procedures for inspections of the facility operations and for detecting failure of the system.

P. For any existing facility, a corrective action plan or identification of other response measures to be taken to remedy any violation of applicable ground water quality standards, class TDS limits or permit limit established under R317-6-6.4E. which has resulted from discharges occurring prior to issuance of a ground water discharge permit.

Q. Other information required by the Executive Secretary.

#### 6.4 ISSUANCE OF DISCHARGE PERMIT

A. The Executive Secretary may issue a ground water discharge permit for a new facility if the Executive Secretary determines, after reviewing the information provided under R317-6-6.3, that:

1. The applicant demonstrates that the applicable class TDS limits, ground water quality standards protection levels, and permit limits established under R317-6-6.4E will be met;

2. the monitoring plan, sampling and reporting requirements are adequate to determine compliance with applicable requirements;

3. the applicant is using best available technology to minimize the discharge of any pollutant; and,

4. there is no impairment of present and future beneficial uses of the ground water.

B. The Board may approve an alternate concentration limit for a new facility if:

1. The applicant submits a petition for an alternate concentration limit showing the extent to which the discharge will exceed the applicable class TDS limits, ground water standards or applicable protection levels and demonstrates that:

a. the facility is to be located in an area of Class III ground water;

b. the discharge plan incorporates the use of best available technology;

c. the alternate concentration limit is justified based on substantial overriding social and economic benefits; and,

d. the discharge would pose no threat to human health and the environment.

2. One or more public hearings have been held by the Board in nearby communities to solicit comment.

C. The Executive Secretary may issue a ground water discharge permit for

an existing facility provided:

1. the applicant demonstrates that the applicable class TDS limits, ground water quality standards and protection levels will be met;

2. the monitoring plan, sampling and reporting requirements are adequate to determine compliance with applicable requirements;

3. the applicant utilizes treatment and discharge minimization technology commensurate with plant process design capability and similar or equivalent to that utilized by facilities that produce similar products or services with similar production process technology; and,

4. there is no current or anticipated impairment of present and future beneficial uses of the ground water.

D. The Board may approve an alternate concentration limit for a pollutant in ground water at an existing facility or facility permitted by rule under R317-6-6.2 if the applicant for a ground water discharge permit shows the extent the discharge exceeds the applicable class TDS limits, ground water quality standards and applicable protection levels that correspond to the otherwise applicable ground water quality standards and demonstrates that:

1. steps are being taken to correct the source of contamination, including a program and timetable for completion;

2. the pollution poses no threat to human health and the environment; and

3. the alternate concentration limit is justified based on overriding social and economic benefits.

E. An alternate concentration limit, once adopted by the Board under R317-6-6.4B or R317-6-6.4D, shall be the pertinent permit limit.

F. A facility permitted under this provision shall meet applicable class TDS limits, ground water quality standards, protection levels and permit limits.

G. The Board may modify a permit for a new facility to reflect standards adopted as part of corrective action.

#### 6.5 NOTICE OF INTENT TO ISSUE A GROUND WATER DISCHARGE PERMIT

The Executive Secretary shall publish a notice of intent to approve in a newspaper in the affected area and shall allow 30 days in which interested persons may comment to the Board. Final action will be taken by the Executive Secretary following the 30-day comment period.

#### 6.6 PERMIT TERM

A. The ground water discharge permit term will run for 5 years from the date of issuance. Permits may be renewed for 5-year periods or extended for a period to be determined by the Executive Secretary but not to exceed 5 years.

B. In the event that new ground water quality standards are adopted by the Board, permits may be reopened to extend the terms of the permit or to include pollutants covered by new standards. The holder of a permit may apply for a variance under the conditions outlined in R317-6-6.4.D.

#### 6.7 GROUND WATER DISCHARGE PERMIT RENEWAL

The permittee for a facility with a ground water discharge permit must apply for a renewal or extension for a ground water discharge permit at least 180 days prior to the expiration of the existing permit. If a permit expires before an application for renewal or extension is acted upon by the Executive Secretary, the permit will continue in effect until it is renewed, extended or denied.

#### 6.8 TERMINATION OF A GROUND WATER DISCHARGE PERMIT BY THE EXECUTIVE SECRETARY

A ground water discharge permit may be terminated or a renewal denied by the Executive Secretary if one of the following applies:

- A. noncompliance by the permittee with any condition of the permit where the permittee has failed to take appropriate action in a timely manner to remedy the permit violation;

- B. the permittee's failure in the application or during the permit approval process to disclose fully all significant relevant facts at any time;

- C. a determination that the permitted facility endangers human health or the environment and can only be regulated to acceptable levels by plan modification or termination; or

- D. the permittee requests termination of the permit.

#### 6.9 PERMIT COMPLIANCE MONITORING

- A. Ground Water Monitoring

The Executive Secretary may include in a ground water discharge permit requirements for ground water monitoring, and may specify compliance monitoring points where the applicable class TDS limits, ground water quality standards, protection levels or other permit limits are to be met.

The Executive Secretary will determine the location of the compliance monitoring point based upon the hydrology, type of pollutants, and other factors that may affect the ground water quality. The distance to the compliance monitoring points must be as close as practicable to the point of discharge. The compliance monitoring point shall not be beyond the property boundaries of the permitted facility without written agreement of the affected property owners and approval by the Executive Secretary..

B. Performance Monitoring

The Executive Secretary may include in a ground water discharge permit requirements for monitoring performance of best available technology standards.

6.10 BACKGROUND WATER QUALITY DETERMINATION

A. Background water quality contaminant concentrations shall be determined and specified in the ground water discharge permit. The determination of background concentration shall take into account any degradation.

B. Background water quality contaminant concentrations may be determined from existing information or from data collected by the permit applicant. Existing information shall be used, if the permit applicant demonstrates that the quality of the information and its means of collection are adequate to determine background water quality. If existing information is not adequate to determine background water quality, the permit applicant shall submit a plan to determine background water quality to the Executive Secretary for approval prior to data collection. One or more up-gradient, lateral hydraulically equivalent point, or other monitoring wells as approved by the Executive Secretary may be required for each potential discharge site.

C. After a permit has been issued, permittee shall continue to monitor background water quality contaminant concentrations in order to determine natural fluctuations in concentrations. Applicable up-gradient, and on-site ground water monitoring data shall be included in the ground water quality permit monitoring report.

6.11 NOTICE OF COMMENCEMENT AND DISCONTINUANCE OF GROUND WATER DISCHARGE OPERATIONS

A. The permittee shall notify the Division of Water Quality immediately upon commencement of the ground water discharge and submit a written notice within 30 days of the commencement of the discharge.

B. The permittee shall notify the Division of Water Quality of the date and reason for discontinuance of ground water discharge within 30 days.

6.12 SUBMISSION OF DATA

A. Laboratory Analyses

All laboratory analysis of samples collected to determine compliance with these regulations shall be performed in accordance with standard procedures by the Utah Division of Laboratory Services or by a laboratory certified by the Utah Department of Health.

B. Field Analyses

All field analyses to determine compliance with these regulations shall be conducted in accordance with standard procedures specified in R317-6-6.3.L.

C. Periodic Submission of Monitoring Reports

Results obtained pursuant to any monitoring requirements in the discharge permit and the methods used to obtain these results shall be periodically reported to the Executive Secretary according to the schedule specified in the ground water discharge permit.

6.13 REPORTING OF MECHANICAL PROBLEMS OR DISCHARGE SYSTEM FAILURES

The permittee shall notify the Executive Secretary within 24 hours of the discovery of any mechanical or discharge system failures that could affect the chemical characteristics or volume of the discharge. A written statement confirming the oral report shall be submitted to the Executive Secretary within five days of the failure.

6.14 CORRECTION OF ADVERSE EFFECTS REQUIRED

A. If monitoring or testing indicates that the permit conditions may be

or are being violated by ground water discharge operations or the facility is otherwise in an out-of-compliance status, the permittee shall promptly make corrections to the system to correct all violations of the discharge permit.

B. The permittee, operator, or owner may be required to take corrective action as described in R317-6-6.15 if a pollutant concentration has exceeded a permit limit.

#### 6.15 CORRECTIVE ACTION

It is the intent of the Board that the provisions of these regulations should be considered when making decisions under any state or federal superfund action; however, the protection levels are not intended to be considered as applicable, relevant or appropriate clean-up standards under such other regulatory programs.

##### A. Application of R317-6-6.15

1. Generally - R317-6-6.15 shall apply to any person who discharges pollutants into ground water in violation of Section 19-5-107, or who places or causes to be placed any wastes in a location where there is probable cause to believe they will cause pollution of ground water in violation of Section 19-5-107.

2. Corrective Action shall include, except as otherwise provided in R317-6-6.15, preparation of a Contamination Investigation and preparation and implementation of a Corrective Action Plan.

3. The procedural provisions of R-317-6-6.15 shall not apply to any facility where a corrective or remedial action for ground water contamination, that the Executive Secretary determines meets the substantive standards of this rule, has been initiated under any other state or federal program. Corrective or remedial action undertaken under the programs specified in Table 2 are considered to meet the substantive standards of this rule unless otherwise determined by the Executive Secretary.

TABLE 2

#### PROGRAM

Leaking Underground Storage Tank, Sections 19-6-401, et seq.

Federal Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Sections 9601, et seq.

Hazardous Waste Mitigation Act, Sections 19-6-301 et seq.

Utah Solid and Hazardous Waste Act, Sections 19-6-101 et seq.

##### B. Notification and Interim Action

1. Notification - A person who spills or discharges any oil or other substance which may cause pollution of ground waters in violation of Section 19-5-107 shall notify the Executive Secretary within 24 hours of the spill or discharge. A written notification shall be submitted to the Executive Secretary within five days after the spill or discharge.

2. Interim Actions - A person is encouraged to take immediate, interim action without following the steps outlined in R317-6-6.15 if such action is required to control a source of pollutants. Interim action is also encouraged if required to protect public safety, public health and welfare and the environment, or to prevent further contamination that would result in costlier clean-up. Such interim actions should include source abatement and control, neutralization, or other actions as appropriate. A person that has taken these actions shall remain subject to R317-6-6.15 after the interim actions are completed unless he demonstrates that:

a. no pollutants have been discharged into ground water in violation of 19-5-107; and

b. no wastes remain in a location where there is probable cause to believe they will cause pollution of ground water in violation of 19-5-107.

##### C. Contamination Investigation and Corrective Action Plan - General

1. The Executive Secretary may require a person that is subject to R317-6-6.15 to submit for the Executive Secretary's approval a Contamination Investigation and Corrective Action Plan, and may require implementation of an approved Corrective Action Plan. A person subject to this rule who has been notified that the Executive Secretary is exercising his or her authority under R317-6-6.15 to require submission of a Contamination Investigation and Corrective Action Plan, shall, within 30 days of that notification, submit to the Executive Secretary a proposed schedule for those submissions, which may include different deadlines for different elements of the Investigation and Plan. The Executive Secretary may accept, reject, or modify the proposed schedule.

2. The Contamination Investigation or the Corrective Action Plan may, in order to meet the requirements of this Part, incorporate by reference information already provided to the Executive Secretary in the Contingency Plan or other document.

3. The requirements for a Contamination Investigation and a Corrective Action Plan specified in R317-6-6.15.D are comprehensive. The requirements are intended to be applied with flexibility, and persons subject to this rule are encouraged to contact the Executive Secretary's staff to assure its efficient application on a site-specific basis.

4. The Executive Secretary may waive any or all Contamination Investigation and Corrective Action Plan requirements where the person subject to this rule demonstrates that the information that would otherwise be required is not necessary to the Executive Secretary's evaluation of the Contamination Investigation or Corrective Action Plan. Requests for waiver shall be submitted to the Executive Secretary as part of the Contamination Investigation or Corrective Action Plan, or may be submitted in advance of those reports.

D. Contamination Investigation and Corrective Action Plan - Requirements

1. Contamination Investigation - The contamination investigation shall include a characterization of pollution, a characterization of the facility, a data report, and, if the Corrective Action Plan proposes standards under R317-6-6.15.F.2. or Alternate Corrective Action Concentration Limits higher than the ground water quality standards, an endangerment assessment.

a. The characterization of pollution shall include a description of:

(1) The amount, form, concentration, toxicity, environmental fate and transport, and other significant characteristics of substances present, for both ground water contaminants and any contributing surficial contaminants;

(2) The areal and vertical extent of the contaminant concentration, distribution and chemical make-up; and

(3) The extent to which contaminant substances have migrated and are expected to migrate.

b. The characterization of the facility shall include descriptions of:

(1) Contaminant substance mixtures present and media of occurrence;

(2) Hydrogeologic conditions underlying and, upgradient and downgradient of the facility;

(3) Surface waters in the area;

(4) Climatologic and meteorologic conditions in the area of the facility;

and

(5) Type, location and description of possible sources of the pollution at the facility;

(6) Groundwater withdrawals, pumpage rates, and usage within a 2-mile radius.

c. The report of data used and data gaps shall include:

(1) Data packages including quality assurance and quality control reports;

(2) A description of the data used in the report; and

(3) A description of any data gaps encountered, how those gaps affect the analysis and any plans to fill those gaps.

d. The endangerment assessment shall include descriptions of any risk evaluation necessary to support a proposal for a standard under R317-6-6.15.F.2 or for an Alternate Corrective Action Concentration Limit.

e. The Contamination Investigation shall include such other information as the Executive Secretary requires.

2. Proposed Corrective Action Plan

The proposed Corrective Action Plan shall include an explanation of the construction and operation of the proposed Corrective Action, addressing the factors to be considered by the Executive Secretary as specified in R317-6-6.15.E. and shall include such other information as the Executive Secretary requires. It shall also include a proposed schedule for completion.

E. Approval of the Corrective Action Plan

After public notice in a newspaper in the affected area and a 30-day period for opportunity for public review and comment, the Executive Secretary shall issue an order approving, disapproving, or modifying the proposed Corrective Action Plan. The Executive Secretary shall consider the following factors and criteria in making that decision:

1. Completeness and Accuracy of Corrective Action Plan.

The Executive Secretary shall consider the completeness and accuracy of the Corrective Action Plan and of the information upon which it relies.

2. Action Protective of Public Health and the Environment

a. The Corrective Action shall be protective of the public health and the environment.

b. Impacts as a result of any off-site activities shall be considered under this criterion (e.g., the transport and disposition of contaminated materials at an offsite facility).

3. Action Meets Concentration Limits

The Corrective Action shall meet Corrective Action Concentration Limits specified in R317-6-6.15.F, except as provided in R317-6-6.15.G.

4. Action Produces a Permanent Effect

a. The Corrective Action shall produce a permanent effect.

b. If the Corrective Action Plan provides that any potential sources of pollutants are to be controlled in place, any cap or other method of source control shall be designed so that the discharge from the source following corrective action achieves ground water quality standards or, if approved by the Board, alternate corrective action concentration limits (ACACLs). For purposes of this paragraph, sources of pollutants are controlled "in place" even though they are moved within the facility boundaries provided that they are not moved to areas with unaffected ground water.

5. Action May Use Other Additional Measures

The Executive Secretary may consider whether additional measures should be included in the Plan to better assure that the criteria and factors specified in R317-6-6.15.E are met. Such measures may include:

a. Requiring long-term ground water or other monitoring;

b. Providing environmental hazard notices or other security measures;

c. Capping of sources of ground water contamination to avoid infiltration of precipitation;

d. Requiring long-term operation and maintenance of all portions of the Corrective Action; and

e. Periodic review to determine whether the Corrective Action is protective of public health and the environment.

F. Corrective Action Concentration Limits

1. Contaminants with specified levels

Corrective Actions shall achieve ground water quality standards or, where applicable, alternate corrective action concentration limits (ACACLs).

2. Contaminants without specified levels

For contaminants for which no ground water quality standard has been established, the proposed Corrective Action Plan shall include proposed Corrective Action Concentration Limits. These levels shall be approved, disapproved or modified by the Executive Secretary after considering U.S. Environmental Protection Agency maximum contaminant level goals, health advisories, risk-based contaminant levels or standards established by other regulatory agencies and other relevant information.

G. Alternate Corrective Action Concentration Limits

An Alternate Corrective Action Concentration Limit that is higher or lower than the Corrective Action Concentration Limits specified in R317-6-6.15.F may be required as provided in the following:

1. Higher Alternate Corrective Action Concentration Limits

A person submitting a proposed Corrective Action Plan may request approval by the Board of an Alternate Corrective Action Concentration Limit higher than the Corrective Action Concentration Limit specified in R317-6-6.15.F. The proposed limit shall be protective of human health, and the environment, and shall utilize best available technology. The Corrective Action Plan shall include the following information in support of this request:

a. The potential for release and migration of any contaminant substances or treatment residuals that might remain after Corrective Action in concentrations higher than Corrective Action Concentration Limits;

b. An evaluation of residual risks, in terms of amounts and concentrations of contaminant substances remaining following implementation of the Corrective Action options evaluated, including consideration of the persistence, toxicity, mobility, and propensity to bioaccumulate such contaminants substances and their constituents; and

c. Any other information necessary to determine whether the conditions of R317-6-6.15.G have been met.

#### 2. Lower Alternate Corrective Action Concentration Limits

The Board may require use of an Alternate Corrective Action Concentration Limit that is lower than the Corrective Action Concentration Limit specified in R317-6-6.15.F if necessary to protect human health or the environment. Any person requesting that the Board consider requiring a lower Alternate Corrective Action Concentration Limit shall provide supporting information as described in R317-6-6.15.G.3.

#### 3. Protective of human health and the environment

The Alternate Corrective Action Concentration Limit must be protective of human health and the environment. In making this determination, the Board may consider:

a. Information presented in the Contamination Investigation;

b. Other relevant cleanup or health standards, criteria, or guidance;

c. Relevant and reasonably available scientific information;

d. Any additional information relevant to the protectiveness of a Corrective Action; and

e. The impact of additional proposed measures, such as those described in R317-6-6.15.E.5.

#### 4. Good cause

An Alternate Corrective Action Concentration Limit shall not be granted without good cause.

a. The Board may consider the factors specified in R317-6-6.15.E in determining whether there is good cause.

b. The Board may also consider whether the proposed remedy is cost-effective in determining whether there is good cause. Costs that may be considered include but are not limited to:

(1) Capital costs;

(2) Operation and maintenance costs;

(3) Costs of periodic reviews, where required;

(4) Net present value of capital and operation and maintenance costs; and,

(5) Potential future remedial action costs.

(6) Loss of resource value.

#### 5. Conservative

An Alternate Corrective Action Concentration Limit that is higher than the Corrective Action Concentration Limits specified in R317-6-6.15.F must be conservative. The Board may consider the concentration level that can be achieved using best available technology if attainment of the Corrective Action Concentration Limit is not technologically achievable.

#### 6. Relation to background and existing conditions

a. The Board may consider the relationship between the Corrective Action Concentration Limits and background concentration limits in considering whether an Alternate Corrective Action Concentration Limit is appropriate.

b. No Alternate Corrective Action Concentration Limit higher than existing ground water contamination levels or ground water contamination levels projected to result from existing conditions will be granted.

#### 6.16 OUT-OF-COMPLIANCE STATUS

A. Accelerated Monitoring for Probable Out-of-Compliance Status

If the concentration of a pollutant in any compliance monitoring sample exceeds an applicable permit limit, the facility shall:

1. Notify the Executive Secretary in writing within 30 days of receipt of data;

2. Initiate monthly sampling, unless the Executive Secretary determines that other periodic sampling is appropriate, for a period of two months or until the compliance status of the facility can be determined.

B. Violation of Permit Limits

Out-of-compliance status exists when:

1. two consecutive samples from a compliance monitoring point exceed:

a. one or more permit limits; and

b. the mean ground water pollutant concentration for that pollutant by two standard deviations (the standard deviation and mean being calculated using values for the ground water pollutant at that compliance monitoring point); or

2. the concentration value of any pollutant in two or more consecutive samples is statistically significantly higher than the applicable permit limit. The statistical significance shall be determined using the statistical methods described in Statistical Methods for Evaluating Ground Water Monitoring Data from Hazardous Waste Facilities, Vol. 53, No. 196 of the Federal Register, Oct. 11, 1988.

C. Failure to Maintain Best Available Technology Required by Permit

1. Permittee to Provide Information

In the event that the permittee fails to maintain best available technology or otherwise fails to meet best available technology standards as required by the permit, the permittee shall submit to the Executive Secretary a notification and description of the failure according to R317-6-6.13. Notification shall be given orally within 24 hours of the permittee's discovery of the failure of best available technology, and shall be followed up by written notification, including the information necessary to make a determination under R317-6-6.16.C.2, within five days of the permittee's discovery of the failure of best available technology.

2. Executive Secretary

The Executive Secretary shall use the information provided under R317-6-6.16.C.1 and any additional information provided by the permittee to determine whether to initiate a compliance action against the permittee for violation of permit conditions. The Executive Secretary shall not initiate a compliance action if the Executive Secretary determines that the permittee has met the standards for an affirmative defense, as specified in R317-6-6.16.C.3.

3. Affirmative Defense

In the event a compliance action is initiated against the permittee for violation of permit conditions relating to best available technology, the permittee may affirmatively defend against that action by demonstrating the following:

a. The permittee submitted notification according to R317-6-6.13;

b. The failure was not intentional or caused by the permittee's negligence, either in action or in failure to act;

c. The permittee has taken adequate measures to meet permit conditions in a timely manner or has submitted to the Executive Secretary, for the Executive Secretary's approval, an adequate plan and schedule for meeting permit conditions; and

d. The provisions of 19-5-107 have not been violated.

6.17 PROCEDURE WHEN A FACILITY IS OUT-OF-COMPLIANCE

A. If a facility is out of compliance the following is required:

1. The permittee shall notify the Executive Secretary of the out of compliance status within 24 hours after detection of that status, followed by a written notice within 5 days of the detection.

2. The permittee shall initiate monthly sampling, unless the Executive Secretary determines that other periodic sampling is appropriate, until the facility is brought into compliance.

3. The permittee shall prepare and submit within 30 days to the Executive Secretary a plan and time schedule for assessment of the source, extent and



potential dispersion of the contamination, and an evaluation of potential remedial action to restore and maintain ground water quality and insure that permit limits will not be exceeded at the compliance monitoring point and best available technology will be reestablished.

4. The Executive Secretary may require immediate implementation of the contingency plan submitted with the original ground water discharge permit in order to regain and maintain compliance with the permit limit standards at the compliance monitoring point or to reestablish best available technology as defined in the permit.

5. Where it is infeasible to re-establish BAT as defined in the permit, the permittee may propose an alternative BAT for approval by the Executive Secretary.

#### 6.18 GROUND WATER DISCHARGE PERMIT TRANSFER

A. The permittee shall give written notice to the Executive Secretary of any transfer of the ground water discharge permit, within 30 days of the transfer.

B. The notice shall include a written agreement between the existing and new permittee establishing a specific date for transfer of permit responsibility, coverage and liability.

#### 6.19 ENFORCEMENT

These rules are subject to enforcement under Section 19-5-115 of the Utah Water Quality Act.

#### 6.20 HEARING AND APPEALS

A. Any person may request a hearing before the Board who:

1. is denied a permit by rule by the Executive Secretary under R317-6-6.2;
2. objects to a discharge limit established by the Executive Secretary;
3. objects to conditions or limitations proposed or established by the Executive Secretary in the ground water discharge permit; or
4. objects to monitoring, sampling, information, or other requests or requirements made by the Executive Secretary;

5. objects to denial by the Executive Secretary of a proposed Corrective Action Plan under R317-6-6.15; or

6. objects to conditions proposed or established by the Executive Secretary in a Corrective Action Plan under R317-6-6.15.

B. Any person who is denied a permit or whose permit is proposed to be terminated or revoked by the Executive Secretary may appeal that decision to the Executive Director of the Department of Environmental Quality pursuant to Section 19-5-112(2).

C. Hearings under R317-6 will be conducted using the Utah Administrative Procedures Act, Title 63, Chapter 46b.

**KEY: water quality, ground water**  
**1995**

**19-5**

# NRC State Regulation Status Update For Utah Rules



# State of Utah

## DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF RADIATION CONTROL

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October 2, 2001

U.S. Nuclear Regulatory Commission  
Kathleen N. Schneider, Acting Deputy Director  
Office of State and Tribal Programs  
Washington, D.C. 20555-0001

Dear Mrs. Schneider:

On August 10, 2001 I sent you the following letter. It was noted that our files did not have the correct effective dates for 1993 and 1994. The effective dates for 1993 and 1994 were not in the Administrative Rule database. My staff asked the Department of Administrative Rules to search their old files and confirm the effective dates. I have highlighted the changed dates. I have also included three other NRC Chronology Identification titles that were not listed before. I apologize for the inconvenience.

Upon review of the NRC State Regulation Status for Utah, dated April 27, 2001 (tracking ticket number 1-68), it was noted that the NRC summary for the final state regulation effective dates was incomplete. When the proposed regulations were adopted and published as final regulations, a copy of the final published rules and a highlighted copy of the changed rules, as requested in STP Procedure SA-2001, were sent to the NRC. Since your summary is incomplete, we are sending you copies of the highlighted changes and latest final rules so the State Regulation Status summary can be updated. You may also access the final rules electronically through our website <http://www.deq.state.ut.us/eqrdr/rules/htm>.

The missing effective dates for the State Regulation Status NRC Chronology Identifications are as follows:

NRC Chronology ID	DRC Rule	Effective date
Safety Requirements for Radiologic Equipment- Part 34 (55 FR 843, 1/10/94)	R313-36	1/10/94

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<b>NRC Chronology Identification</b>	<b>DRC Rule</b>	<b>Effective date</b>
Notification of Incidents- Parts 20, 30, 31, 34, 39, 40, 70 (56 FR 64980, 10/15/94)	R313-15 R313-19 R313-22 R313-36 R313-38	11/10/93 10/26/94 8/2/93 1/10/94 10/26/94
Quality Management Program and Misadministration-Part 35 (56 FR 34104, 1/27/95)	R313-32	7/20/94 3/10/95
Definition of Land Disposal and Waste Site QA Program-Part 61 (58 FR 33886, 7/22/96)	R313-25	5/31/96
Frequency of Medical Examinations for Use of Respiratory Protection Equipment-Part 20 (60 FR 7900, 3/13/98)	R313-15	3/20/98
Low-Level Waste Shipment Manifest Information and Reporting-Parts 20, 61 (60 FR 15649 & 25983, 3/1/98)	R313-15 R313-25	3/20/98 1/23/98
Performance Requirements for Radiography Equipment-Part 34 (60 FR 28323, 6/30/98)	R313-36	7/18/97
Radiation Protection Requirements: Amended Definitions and Criteria-Parts 19, 20 (60 FR 36038, 8/14/98)	R313-15 R313-18	3/20/98 1/23/98
Medical Administration of Radiation and Radioactive Materials-Parts 20, 35 (60 FR 48623, 10/20/98)	R313-32	8/11/98

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<b>NRC Chronology Identification</b>	<b>DRC Rule</b>	<b>Effective date</b>
Termination or Transfer of	R313-12	3/20/98
Licensed Activities:	R313-15	3/20/98
Recordkeeping Requirements-	R313-22	7/18/97
Parts 20, 30, 40, 61, 70	R313-25	1/23/98
(61 FR 24669, 6/17/99)		
Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act-Part 20 (61 FR 65120, 1/9/00)	R313-15	3/20/98
Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State-Part 150 (62 FR 1662, 2/27/00)	R313-19	6/11/99
Criteria for the Release of Individuals Administered Radioactive Material-	R313-15	3/20/98
Parts 20, 35 (62 FR 4120, 5/29/00)	R313-32	1/23/98
Deliberate Misconduct by Unlicensed Persons-Parts 30, 40, 61, 70, 71, 150 (63 FR 1890 & 13773, 2/12/01)	R313-19	1/26/01
Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations- Part 34 (63 FR 37059, 7/9/01)	R313-36	5/11/01

Please note that the following are additional effective dates for the NRC Chronology Identification categories listed below. The rules are in the process of being forwarded to you.

Minor Corrections, Clarifying Changes, and a Minor Policy Change-Parts 20, 35, and 36 (63 FR 39477 and 45393, 10/26/01)	R313-12, 15, 22, 32, & 34	9/14/01
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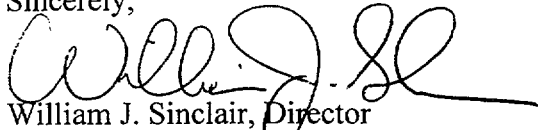
October 2, 2001

Page 4

<b>NRC Chronology ID</b>	<b>DRC Rule</b>	<b>Effective date</b>
Transfer for Disposal and Manifests: Minor Technical Conforming Amendment-Part 20 (63 FR 50127, 11/20/01)	R313-15	9/14/01
Respiratory Protection and Controls to Restrict Internal Exposure-Part 20 (64 FR 54543 and 55525, 2/2/03)	R313-15	9/14/01
Energy Compensation Sources for Well Logging and Other Regulatory Clarifications-Part 39 (65 FR 20337, 5/17/03)	R313-38	9/14/01

If you have any questions regarding our request for updating the effective dates for the final State rules on the NRC State Regulation Status summary, you may contact Susan Giddings at (801) 536-4250. Thank you for your assistance.

Sincerely,

  
William J. Sinclair, Director  
Division of Radiation Control

## STATE REGULATION STATUS

NRC Chronology Identification	FR Notice (Date Due for State Implementation)	RATS ID	Proposed (P) / Final (F)1 Rule / ML #4	NRC Review / Y, N 2 / Date / ML #4	Final State Regulation (Effective Date)/ Utah Radiation Control Rule
Safety Requirements for Radiographic Equipment-Part 34	55 FR 843; (1/10/94)	1991-1		R313-36	1/10/94, R313-36
ASNT Certification of Radiographers-Part 34	56 FR 11504; (none)	1991-2			Not required <sup>3</sup>
Standards for Protection Against Radiation-Part 20	56 FR 23360; 56 FR 61352; 57 FR 38588; 57 FR 57877; 58 FR 67657; 59 FR 41641; 60 FR 20183; (1/1/94)	1991-3	F	N 2/10/98	1/23/98, R313-15
Notification of Incidents-Parts 20, 30, 31, 34, 39, 40, 70	56 FR 64980; (10/15/94)	1991-4			11/10/93, R313-15 10/26/94, R313-19 8/2/93, R313-22 1/10/94, R313-36 10/26/94, R313-38
Quality Management Program and Misadministrations-Part 35	56 FR 34104; (1/27/95)	1992-1	P	N 1/26/98	7/20/94, R313-32 3/10/95
Eliminating the Recordkeeping Requirements for Departures from Manufacturer's Instructions-Parts 30, 35	57 FR 45566; (none)	1992-2			Not required <sup>3</sup>
Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted areas and spill sites]-Parts 30, 40	58 FR 39628; (10/25/96)	1993-1	F	N 1/8/97	11/15/96, R313-19, & 22
Licensing and Radiation Safety Requirements for Irradiators-Part 36	58 FR 7715; (7/1/96)	1993-2	F	N 6/14/00	3/10/00, R313-34
Definition of Land Disposal and Waste Site QA Program-Part 61	58 FR 33886; (7/22/96)	1993-3	P	N 9/23/96	5/31/96, R313-25
Self-Guarantee as an Additional Financial Mechanism-Parts 30, 40, 70	58 FR 68726; 59 FR 1618 (none)	1994-1			Not required <sup>3</sup>

NRC Chronology Identification	FR Notice (Date Due for State Implementation)	RATS ID	Proposed (P) / Final (F)1 Rule / ML #4	NRC Review / Y, N 2 / Date / ML #4	Final State Regulation: (Effective Date)/ Utah Radiation Control Rule
Uranium Mill Tailings Regulations: Conforming NRC Requirements to EPA Standards-Part 40	59 FR 28220; (7/1/97)	1994-2			Applicable parts to be adopted when the State receives authority from the NRC to regulate uranium mills and mill tailings
Timeliness in Decommissioning Material Facilities-Parts 30, 40, 70	59 FR 36026; (8/15/97)	1994-3	F	N 2/10/98	7/18/97, R313-22
Preparation, Transfer for Commercial Distribution, and Use of Byproduct Material for Medical Use-Parts 30, 32, 35	59 FR 61767; 59 FR 65243; 60 FR 322; (1/1/98)	1995-1	F	N 2/10/98	7/18/97, R313-22
Frequency of Medical Examinations for Use of Respiratory Protection Equipment-Part 20	60 FR 7900; (3/13/98)	1995-2	P	N 1/26/98	3/20/98, R313-15
Low-Level Waste Shipment Manifest Information and Reporting-Parts 20, 61	60 FR 15649; 60 FR 25983 (3/1/98)	1995-3	P	N 1/26/98	3/20/98, R313-15 1/23/98, R313-25
Performance Requirements for Radiography Equipment-Part 34	60 FR 28323; (6/30/98)	1995-4			7/18/97, R313-36
Radiation Protection Requirements: Amended Definitions and Criteria-Parts 19, 20	60 FR 36038; (8/14/98)	1995-5	P	N 1/26/98	3/20/98, R313-15 1/23/98, R313-18
Clarification of Decommissioning Funding Requirements-Parts 30, 40, 70	60 FR 38235; (11/24/98)	1995-6	F	N 2/10/98	7/18/97, R313-22
Medical Administration of Radiation and Radioactive Materials-Parts 20, 35	60 FR 48623; (10/20/98)	1995-7	P	N 1/26/98	8/11/98, R313-32
10 CFR Part 71: Compatibility with the International Atomic Energy Agency-Part 71	60 FR 50248; 61 FR 28723 (4/1/99)	1996-1	F	N 4/16/99	3/12/99, R313-19
One Time Extension of Certain Byproduct, Source and Special Nuclear Materials Licenses-Parts 30, 40, 70	61 FR 1109; (none)	1996-2	F	N 2/10/98	Not required <sup>3</sup>
Termination or Transfer of Licensed Activities: Recordkeeping Requirements- Parts 20, 30, 40, 61, 70	61 FR 24669; (6/17/99)	1996-3	F Part 30	N 2/10/98	3/20/98, R313-12 3/20/98, R313-15 7/18/97, R313-22 1/23/98, R313-25
Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act-Part 20	61 FR 65120; (1/9/00)	1997-1	P	N 1/26/98	3/20/98, R313-15



NRC Chronology Identification	FR Notice (Date Due for State Implementation)	RATS ID	Proposed (P) / Final (F) Rule / ML #	NRC Review / Y, N 2 / Date / ML #	Final State Regulation (Effective Date) / Utah Radiation Control Rule
Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State- Part 150	62 FR 1662; (2/27/00)	1997-2			6/11/99, R313-19
Criteria for the Release of Individuals Administered Radioactive Material- Parts 20, 35	62 FR 4120; (5/29/00)	1997-3	P	N 1/26/98	3/20/98, R313-15 1/23/98, R313-32
Fissile Material Shipments and Exemptions-Part 71	62 FR 5907; (none)	1997-4			Not required <sup>3</sup>
Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations-Parts 30, 34, 71, 150	62 FR 28948; (6/27/00)	1997-5	F	N 4/1/98	5/15/97, R313-36
Radiological Criteria for License Termination-Parts 30, 40, 70	62 FR 39058; (8/20/00)	1997-6	F	N 6/14/00	3/10/00, R313-15, 22
Exempt Distribution of a Radioactive Drug Containing One Microcurie of Carbon-Urea-Part 30	62 FR 63634; (1/02/01)	1997-7	F	N 4/16/99	3/12/99, R313-19
Deliberate Misconduct by Unlicensed Persons-Parts 30, 40, 61, 70, 71, 150	63 FR 1890; 63 FR 13773 (2/12/01)	1998-1	F ML011100015	N 7/31/01 ML012150220	1/26/01, R313-19
Self-Guarantee of Decommissioning Funding Nonprofit and Non-Bond-Issuing Licensees- Parts 30, 40, 70	63 FR 29535; (none)	1998-2			Not required <sup>3</sup>
License Term for Medical Use Licenses-Part 35	63 FR 31604; (none)	1998-3			Not required <sup>3</sup>
Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations-Part 34	63 FR 37059; (7/9/01)	1998-4	P ML010870073	N 4/27/01 ML011170330	5/11/01, R313-36
Minor Corrections, Clarifying Changes, and a Minor Policy Change-Parts 20, 35, 36	63 FR 39477; 63 FR 45393 (10/26/01)	1998-5		Rules being submitted to the NRC for review	9/14/01, R313-12, 15, 22, 32, & 34
Transfer for Disposal and Manifests: Minor Technical Conforming Amendment-Part 20	63 FR 50127; (11/20/01)	1998-6		Rule being submitted to the NRC for review	9/14/01, R313-15
Radiological Criteria for License Termination of Uranium Recovery Facilities- Part 40	64 FR 17506; (6/11/02)	1999-1			Applicable parts to be adopted when the State receives authority from the NRC to regulate uranium mills and mill tailings
Requirements for Those Who Possess Certain Industrial Devices Containing Byproduct Material to Provide Requested Information-Part 31	64 FR 42269; (none)	1999-2			Not required <sup>3</sup>

NRC Chronology Identification	FR Notice (Date Due for State Implementation)	RATS ID	Proposed (P) / Final (F)1 Rule / ML #4	NRC Review / Y, N 2 / Date / ML #4	Final State Regulation (Effective Date)/ Utah Radiation Control Rule
Respiratory Protection and Controls to Restrict Internal Exposure-Part 20	64 FR 54543; 64 FR 55525 (2/2/03)	1999-3		Rule being submitted to the NRC for review	9/14/01, R313-15
Energy Compensation Sources for Well Logging and Other Regulatory Clarifications-Part 39	65 FR 20337; (5/17/03)	2000-1	P ML011440157	N 8/15/01 ML012290284	9/14/01, R313-38
New Dosimetry Technology-Parts 34, 36, 39	65 FR 63749; (1/8/04)	2000-2	P Part 34 ML010870073	N 4/27/01 ML011170330	

NRC STP Procedure Approval  
SA-700  
Utah Applicable Statutes and Rules

STP PROCEDURE APPROVAL  
SA-700  
UTAH APPLICABLE STATUTES AND RULES

4.1.1 Program/Agreement Authority: Utah Code Annotated (UCA) 19-3-113

4.1.1.1 State Law

- a. UCA 19-3-113
- b. UCA 19-3-104, Utah Radiation Control Rule (URC) R313-19-2
  - 1. URC R313-12
  - 2. URC R313-12
  - 3. URC R313-19-30
  - 4. URC R313-19
  - 5. URC R313-19
- c. UCA 19-3-104, 19-3-105
- d. UCA 19-3-108
- e. URC R313-19-20
- f. UCA 19-109 thru 111  
URC R313-14

Regulation of low-level waste: UCA 19-3-104(8), URC R313-25

4.1.1.2 Evaluation Criteria

- a. UCA 19-3-113
- b. The rules will be modified to accommodate reservation of Authority to the NRC.
- c. UCA 19-3-104 & 105, URC R313-19-30
- d. URC R313-12-54
- e. URC R313-12-55
- f. UCA 19-3-103.5
- g. URC R313-12-52
- h. UCA 19-3-108 thru 111
- i. URC R313-14-15, UCA 19-3-108

4.1.1.3 Low-level waste

URC R313-25  
UCA 19-3-104 thru 106

4.1.1.4 11.e(2)

- a. Adoption of UCA 19-3-104(3)(d)
- b. Adoption of 10 CFR 40  
UCA 19-3-104(3)(b)
- c. URC R313-17
  - 1. URC R313-17-2
  - 2. The URC rules will be modified in R313-17 to allow for the preparation of a written environmental analysis.
  - 3. & 4. URC R313-17
  - 5. The rules will be modified in URC R313-17 to ban construction before completion of the written environmental analysis.
- d. URC R313-17  
UCA 19-3-103.5

- e. The rules will be modified to require the program, before terminating 11e.(2) byproduct material license, to do the following:
- (1) transfer funds collected for decommissioning and long-term surveillance and maintenance to the United States. The rule will require this transfer when custody of the disposal site transfers to the United States. Funds transferred must include all funds collected from a licensee or its surety. The only exceptions are funds collected for decommissioning if it is completed.
  - (2) choose whether or not to take title to the disposal site and byproduct material; and
  - (3) obtain a determination from the Commission that all applicable standards are satisfied.