



RULEMAKING ISSUE

(Notation Vote)

SECY-85-12

January 16, 1985

For: The Commissioners

From: William J. Dircks
Executive Director for Operations

Subject: ADVANCE NOTICE OF PROPOSED RULEMAKING ON
FINANCIAL RESPONSIBILITY APPLICABLE TO NRC
LICENSEES FOR CLEANUP OF ACCIDENTAL RELEASES
OF CERTAIN MATERIALS

Purpose: To request Commission approval to publish an Advanced
Notice of Proposed Rulemaking (ANPRM) in the Federal
Register requesting public comment on the development of
financial responsibility standards for cleanup
of accidental releases of certain materials licensees.

Category: This paper involves a major policy question requiring
Commission approval. Resource estimates: Category 1,
preliminary.

Issue: Should the Commission publish an ANPRM seeking public
comments on the advisability of having the Commission
develop financial responsibility requirements for cleanup
of accidental releases of certain materials licensees.

Summary: This paper recommends that the Commission publish an
ANPRM for comment on the advisability of having the
Commission enter into a rulemaking that would require
certain categories of materials licensees to demonstrate
evidence of financial responsibility for cleanup of
accidental releases of radioactive materials.

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The ANPRM also invites comments on the scope, cost, and availability of financial assurance mechanisms of such a proposed Commission program. The staff is concerned that if cleanup following an accidental release is delayed due to a licensee's inability to provide funds, then a potential threat to public health, safety, and the environment could exist. The 1983 EPA policy statement (48 FR 40658) excluding NRC licensed facilities from eligibility for cleanup funds under the "Superfund" program (on the grounds that NRC could accomplish the same objective outside the EPA program) increases the need to ask for public input about establishing financial responsibility standards for NRC-regulated licensees.

Staffing resources exist to publish the ANPRM and evaluate public comments received. Therefore, the staff believes that these activities will not impose significant resource requirements on the Commission.

Background:

In 1983, staff prepared a scoping paper addressing the need for financial responsibility for NMSS licensees. NMSS staff coordinated the paper with RES, OSP, OELD, AEOD, and the Regions. Additionally, EDO, OPE, OGC, and the Interoffice Working Group on Regulation of Fuel Cycle and Material Activities were briefed on the scope and status of the paper. These Offices supported the development of an ANPRM on this issue, and their comments were incorporated into the ANPRM.

The NRC decommissioning rulemaking package (SECY-84-354) recently submitted to the Commission also contained a brief explanation of how the scope of its financial assurance requirements was different from that being proposed in this ANPRM. This proposed ANPRM covers funding for cleanup of accidental releases while SECY-84-354 covers funding for routine decommissioning activities.

Additionally, in accordance with NRC Manual Chapter 0401, (which encourages early agency consultation with the States), OSP sent copies of a draft ANPRM to officials in all fifty States in August, 1984, and asked for comments.

The States have also recognized the need for national financial responsibility standards. In 1976, the Conference of Radiation Control Program Directors issued a Report that, among other things, called for the development of such standards.

State officials also provided staff with comments on the ANPRM at the 1984 Annual All-Agreement States Meeting. The ANPRM was revised to reflect these State comments. None of the States' comments opposed the development of federal financial responsibility standards for cleanup being proposed in the ANPRM; several States strongly supported the idea. One State official expressed concern that such a program might impose an administrative burden on implementing State and Federal authorities. However, based on a preliminary determination, the staff believes that the potential benefits of this proposed program outweigh the potential administrative costs.

Discussion:

This ANPRM is seeking guidance on requiring certain classes of materials licensees (10 CFR Parts 30, 40, 61, 70, and 72) to demonstrate evidence of financial responsibility for cleanup of accidental releases, i.e., an unauthorized release of radioactive materials due to human error, system failure, or defective components. Both on-site and off-site accidental or unexpected contamination would be covered. Any necessary environmental restoration would also be included.¹ In the context of this ANPRM, accidental or unexpected contamination refers to an unauthorized release of radioactive materials in excess of NRC regulatory limits, regardless of the cause of the release. Examples of causes include human error or negligence, an act of God, licensee misconduct, system failure, or defective components.

¹Environmental restoration following an accidental release is intended to provide limited coverage for the damage or destruction of natural resources into or upon the land or water.

The regulatory program being considered in the ANPRM would require certain fuel cycle and materials licensees to demonstrate adequate financial resources for cleanup of accidental releases of radioactive materials on-site and off-site. The proposed requirement would also cover financial responsibility for any necessary environmental restoration.

Typical materials licensees that would be considered for inclusion in the proposed financial responsibility program include radiopharmaceutical manufacturers, industrial radiographers, users of gauging devices, gas chromatography, well-logging, nuclear medicine diagnosis and radiation therapy. Licensed fuel cycle activities covered by this proposed rule include uranium milling, UF_6 production, and fuel processing and fabrication. Regulated waste management activities include commercial low-level waste disposal, independent spent fuel storage facilities, and persons disposing or storing of their own waste under special license conditions.²

For the purposes of initial discussion in the ANPRM, the Commission staff is considering a \$2,000,000 baseline as the required amount of financial responsibility for materials and fuel cycle facilities. The Commission staff chose this figure for the purpose of initial discussion because it is in the range of known cleanup costs for NRC licensees and also of other stated dollar amounts of state and federal financial responsibility requirements for cleanup of accidental releases of hazardous materials.

²The proposed financial responsibility program would exempt the following Department of Energy-owned facilities: high-level waste repositories (licensed under 10 CFR Part 60), independent spent fuel storage facilities, and monitored retrievable storage facilities (both licensed under 10 CFR Part 72). In the event of an accident, DOE has access to public funds to pay for cleanup. Additionally, DOE private contractors working at the repository can be indemnified under Section 170(d) of the Atomic Energy Act.

The staff is aware that this \$2,000,000 amount could be inadequate to pay for cleanup of a low-probability major accident at a facility which might result in cleanup costs of several million dollars. However, the staff will consider, at a later date, the issue of financial responsibility for the small number of licensees who have the potential to be involved in the significantly more costly cleanups postulated in NRC funded studies.³

The ANPRM is asking for public comment on a proposed regulatory program with the following features:

1. Carriers of radioactive materials covered by the financial responsibility requirements of the Motor Carrier Act of 1980 (P.L. 96-296) would be excluded.
2. Financial responsibility would cover both sudden and non-sudden releases and would exclude authorized and predictable activities normally associated with decommissioning. The latter is being covered by the Commission's decommissioning rulemaking. (SECY 84-354).
3. Financial responsibility would cover on-site and off-site cleanup for private and public property, as well as environmental restoration of natural resources (See footnote 1).
4. Licensed State, Federal government, or other self-insured public authorities would be excluded.

³See J. P. McBride, "Economic Consequences of Accidental Releases from Fuel Fabrication and Radioisotope Processing Plants," prepared by Oak Ridge National Laboratories for the U.S. Nuclear Regulatory Commission, 1979, (NUREG/CR-0222); the results of the study were discussed in a U.S. Nuclear Regulatory Commission Information Report, "Extension of Indemnity Coverage To Materials Licensees Other Than Those Possessing And Using Plutonium," (SECY-80-467), October 10, 1980. See also H. K. Elder, Working Paper, "Technology, Safety and Costs of Decommissioning Reference Nuclear Fuel Cycle and Non-Fuel Cycle Facilities Following Postulated Accidents," Pacific Northwest Laboratory, NUREG/CR-3293, August, 1983.

5. Licensees required to submit evidence of financial responsibility would have the option of using a variety of different financial assurance and insurance mechanisms.

Additionally, the staff is using the ANPRM to ask for public input on a number of specific issues in the proposed action, such as which licensees should be exempted from this proposed rule, as well as the availability, cost, and applicability of the various financial assurance mechanisms.

Need for Commission Action

Historically, the Commission has not kept records that would identify either the cost of cleaning up accidental releases, or those situations where the licensee lacked sufficient funds to pay for cleanup. However, both NRC and Agreement State licensees have had accidental or unexpected releases of radioactive materials that have been costly to cleanup, and in at least one case, the licensee lacked sufficient funds to pay for cleanup.

State and federal cost estimates for past cleanup have been estimated at up to \$2 million dollars for a single event. Known examples of accidental releases that have resulted in cleanup costs include:

- In 1983, cesium-137 sealed source was accidentally ruptured. Workers inadvertently spread the contamination into residences and public buildings. The cost for cleanup of this contamination was estimated to be at least \$500,000.
- In 1982, an americium-241 sealed source in use in a well-logging operation was inadvertently ruptured, resulting in contamination of both on-site drilling equipment and off-site homes and commercial residences. Cleanup costs were estimated to be up to at least \$1 million dollars.
- During 1979 and 1980, a tritium manufacturer's operations in Tucson, Arizona resulted in releases both on and off-site. The company was financially

unable to pay for cleanup, and State officials estimated that the State spent approximately \$2 million dollars in labor and capital costs for removal and cleanup of the tritium.

The staff is concerned that if licensees lack adequate financial resources, and an accidental or unexpected contamination were to occur, then there might be long term consequences with public exposure from the residual contamination, as well as loss of use of contaminated property.

Moreover, the staff does not think it is necessary for a health and safety agency such as the Commission to wait until an NRC licensee is unable to pay for cleanup to consider the development of a regulation. The U.S. Environmental Protection Agency recognized the need to go forward with financial responsibility requirements in the absence of a large accident data base.

Because it appears that public health and safety could be jeopardized in the event of an accidental release where the licensee lacks sufficient financial resources to effect prompt cleanup, the staff thinks it is prudent to publish an ANPRM requesting public comment on the advisability of promulgating regulations to ensure cleanup costs.

Relationship of Proposed ANPRM to NRC and Other Federal Programs

The financial assurance program for cleanup of accidental releases being considered by the staff in this ANPRM is separate and distinct from the compensation program mandated by Commission regulations pursuant to the Price-Anderson Act, which does not provide funds for cleanup per se. Currently, the Price-Anderson program applies only to nuclear reactors on a mandatory basis and to plutonium processors and fuel fabricators on a discretionary basis. These activities and uses of materials would not be included in the proposed program.

The financial responsibility program proposed by the staff in this ANPRM for comment is not intended to provide compensation to persons for personal injury or property damage and is, therefore, not a public liability program. Instead, the financial responsibility program being

considered in this ANPRM is intended to assure availability of licensee funds to cleanup accidental or unexpected contamination. It also does not cover routine decommissioning activities of facilities.

Impacts

The staff expects that publishing the ANPRM and incorporating and responding to public comments will not impose additional significant resource requirements on the Commission.

All potentially impacted licensees will receive copies of the ANPRM for comment, and although not required to respond, it is expected that they will choose to submit comments to the NRC.

The staff is aware that if eventually promulgated, the potential rule could impact a variety of parties. The staff believes, however, that the benefits of such a requirement outweigh the potential costs to licensees. If licensee funds are not promptly available for cleanup, public funds might have to be directly expended by state and federal agencies. Even without a bankrupt licensee, there could be significant public impacts if cleanup is delayed by ensuing litigation over the responsibility and cost.

Recommendations:

That the Commission:

1. Approve publication of a notice of the ANPRM in the Federal Register (Enclosure 1):
2. Note:
 - a. The notice of proposed rulemaking in Enclosure 1 will be published in the Federal Register with a 90 day comment period.
 - b. A copy of the draft ANPRM was sent to all States for review and comment in accordance with NRC Manual Chapter 0401. Their comments have been incorporated into the ANPRM.
 - c. That the appropriate Congressional Committees will be informed.

- d. The Federal Register notice of proposed rulemaking will be distributed to affected licensees and other interested parties.
- e. A public announcement will be issued at the same time the notice of proposed rulemaking is published in the Federal Register.

Scheduling:

No specific circumstance is known to staff which would require Commission action by any particular date in the near term.

William J. Dircks
Executive Director for Operations

Enclosures:
Federal Register Notice

Commissioners' comments or consent should be provided directly to the Office of the Secretary by c.o.b. Thursday, January 31, 1985

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Thursday, January 24, 1985, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION:

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NUCLEAR REGULATORY COMMISSION

10 CFR Parts 30, 40, 61, 70, and 72

Financial Responsibility Requirements Applicable to NRC Licensees for
Cleanup of Accidental and Unexpected Releases of Radioactive Materials

AGENCY: Nuclear Regulatory Commission.

ACTION: Advance notice of proposed rulemaking (ANPRM).

SUMMARY: The Nuclear Regulatory Commission is considering whether to amend its regulations to require certain persons licensed to possess nuclear materials to demonstrate that they possess adequate financial means to pay for cleanup of accidental releases of radioactive materials. If licensees lack adequate financial resources and funds are not available for prompt cleanup the consequences could be potentially significant for the public, the licensee, and the federal government. This advance notice of proposed rulemaking is being issued to invite advice and recommendations on several questions pertaining to this proposal concerning scope of coverage, as well as the availability and cost to licensees of obtaining various financial assurance mechanisms.

DATE: Comment period expires _____. Comments received after this date will be considered if it is practical to do so, but assurance of consideration cannot be given except as to comments received before this date.

ADDRESSES: Send comments or suggestions to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch.

Hand deliver comments to: Room 1121, 1717 H St. NW., Washington, DC between 8:15 a.m. and 5:00 p.m.

Examine copies of comments received at: The NRC Public Document Room, 1717 H Street NW., Washington, DC

FOR FURTHER INFORMATION CONTACT: Mary Jo Seeman, Office of Nuclear Materials Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 427-4647.

SUPPLEMENTARY INFORMATION:

BACKGROUND

Purpose and Scope

The Nuclear Regulatory Commission (and its predecessor the Atomic Energy Commission), has regulated the possession, use, and disposal of nuclear materials since the 1950's. This ANPRM is seeking guidance on requiring certain classes of materials licensees to demonstrate evidence of financial responsibility for cleanup of accidental releases, i.e., an unauthorized release of radioactive materials due to human error, system failure, an act of God, or defective components. Licenses under consideration in this ANPRM include radiopharmaceutical manufacturers, industrial radiographers, users of gauging devices, gas chromatography, well-logging, nuclear medicine diagnosis and radiation therapy. Other

NRC licensed operations operations covered by this proposed rule include fuel cycle activities such as uranium milling, UF_6 production, and fuel processing and fabrication. Regulated waste management activities include commercial low-level waste disposal, independent spent fuel storage facilities, and persons disposing or storing of their own waste under special license conditions.¹ If implemented, such standards would be a matter of compatibility with the Agreement States.

The financial assurance program for cleanup of accidental releases being considered by the Commission in this ANPRM is separate and distinct from the compensation program mandated by the Commission regulations pursuant to the Price-Anderson Act, which does not provide funds for cleanup per se. Currently, the Price-Anderson program applies only to nuclear reactors on a mandatory basis and to plutonium processors and fuel fabricators on a discretionary basis.² These activities and uses of materials would not be included in the proposed program. The program

¹The proposed financial responsibility program would exempt the following Department of Energy-owned facilities: high-level waste repositories (licensed under 10 CFR Part 60), independent spent fuel storage facilities, and monitored retrievable storage facilities (both licensed under 10 CFR Part 72). In the event of an accident, DOE has access to public funds to pay for cleanup. Additionally, DOE private contractors working at the repository can be indemnified under Section 170(d) of the Atomic Energy Act.

²The Commission has authority under Section 170 of the Atomic Energy Act to apply Price-Anderson indemnification to any category of licensee whenever the Commission deems it advisable in the exercise of its licensing authority. However, the Commission has not chosen to extend Price Anderson indemnification to materials licensees with the single exception of those engaged in the use of plutonium in a plutonium processing and fuel fabrication plant.

proposed in this ANPRM is not intended to provide compensation to persons for personal injury or property damage and is, therefore, not a public liability program.

Moreover, it appears that the Comprehensive Environmental Response, Compensation and Liability Act of 1980, "CERCLA" (P.L. 96-510) would not provide cleanup funds for releases involving NRC licensees. In a Federal Register notice issued on September 8, 1983, (48 FR 40658) EPA made the following policy statement:

"EPA has also chosen not to list releases of source, byproduct, and special nuclear material from any facility with a current license issued by the Nuclear Regulatory Commission (NRC), on the grounds that the NRC has full authority to require cleanup of releases from such facilities."

This ANPRM is soliciting public comments on the advisability of having NRC require financial responsibility mechanisms for prompt cleanup of radioactive materials both on-site and off-site after accidental or unexpected contamination by fuel cycle and other materials licensees.

Any necessary environmental restoration would also be included.³ Accidental or unexpected contamination refers to an unauthorized release of radioactive materials in excess of NRC regulatory limits regardless of the cause of the release. Examples of causes include human error or negligence, an act of God, licensee misconduct, system failure, or defective components.

This ANPRM focuses on whether to require licensees to demonstrate financial responsibility for cleanup of accidental or unexpected releases of radioactive materials and not for authorized and predictable activities normally associated with decommissioning. The latter is being addressed in a separate ongoing Commission rulemaking on decommissioning.

Need for Action

Although there is little information available on the financial condition of NRC fuel cycle and materials licensees, the NRC staff

³Environmental restoration following an accidental release is intended to provide limited coverage for the damage or destruction of natural resources into or upon the land or water.

believes most of these licensees already have some financial resources or insurance coverage for on-site and off-site cleanup as a prudent business practice.

However, if a licensee did not have adequate financial resources, and an accidental or unexpected contamination did occur, there could be both short and long term consequences with possible public exposure from the residual contamination, as well as loss of use of contaminated property.

Public health, safety, and property degradation may occur at contaminated areas in the long run, if adequate funding is not available for prompt cleanup. Moreover, from an equity viewpoint, the Commission believes it appropriate that the licensee, and not the public, should assume financial responsibility for prompt cleanup of accidental releases caused by licensee activities.

The issue of licensee financial responsibility for cleanup of accidental releases of radioactive materials has also been an issue with the states; the Conference of Radiation Control Program Directors has recognized the need for Federal standards since at least 1976. In August of 1984, in order to promote intergovernment consultation at an early stage of a proposed agency action, the Commission sent a draft version of

this ANPRM to officials in all fifty states, and also asked for their comments. Commission staff also discussed the issue of the ANPRM with State radiation control program officials in October, 1984. The comments generally supported the development of the rulemaking, and specific comments were incorporated into the ANPRM.

Both NRC and Agreement State licensees have had accidental or unexpected releases of radioactive materials that have been costly to cleanup. State and Federal estimates for cleanup costs have been estimated at up to \$2,000,000 for a single event. Examples of some of these cleanup costs that the NRC staff is aware of include:

-- In 1983, a cesium-137 sealed source was accidentally ruptured. Workers inadvertently spread the contamination into residences and public buildings. The cost for cleanup of this contamination was estimated to be at least \$500,000.

-- In 1982, an americium-241 sealed source in use in a well-logging operation was inadvertently ruptured, resulting in contamination of both on-site drilling equipment and off-site homes and commercial residences. Cleanup costs were estimated to be up to at least \$1,000,000.

-- During 1979 and 1980, a tritium manufacturer's operations in Tucson, Arizona resulted in releases both on and offsite. The company was financially unable to pay for cleanup, and state officials estimated that the State spent approximately \$2,000,000 in labor and capital costs for removal and cleanup of the tritium.

Relatively little data on cleanup costs for accidental releases of licensees is available in NRC records, mainly because this type of information is not required to be submitted to the agency. However, a recent review of NRC unusual non-reactor events reports for radioactive releases by materials and fuel cycle licensees indicates that from 1980 to 1983, accidental or unexpected releases from licensees' operations believed to involve significant cleanup costs (more than a few thousand dollars) involved fewer than one percent annually of the total fuel cycle and materials licensees authorized to possess and use byproduct, source and special nuclear materials.

Besides lacking a comprehensive data base for licensee cleanup costs for accidental releases, the Commission also has no available records to determine if licensees lack (or previously lacked) adequate funds to provide for prompt cleanup of accidental releases. Accordingly, the Commission is using this ANPRM to solicit public and industry input on the scope and magnitude of the problem. However, even given this lack of

a strong data base, the NRC staff does not believe it is prudent for the Commission to wait until an event occurs which requires expensive cleanup to consider the development of a regulation. Other agencies, such as the U.S. Environmental Protection Agency, have gone forward with financial responsibility requirements in the absence of a large documented data base.

In addition, several NRC-funded studies have presented cost estimates for cleanup of NRC-licensed fuel cycle facilities related to emergency planning issues and the Price-Anderson Act.⁴ Since these studies were prepared for different purposes and assumptions, it is difficult to compare the results or to use their conclusions as the basis for estimating cleanup costs for the vast majority of fuel cycle and material licensees. Therefore, the NRC staff is proposing to use the limited, but actual, past cleanup cost experience (discussed previously) as the basis for setting the amount of financial responsibility coverage

⁴See J. P. McBride, "Economic Consequences of Accidental Releases from Fuel Fabrication and Radioisotope Processing Plants," prepared by Oak Ridge National Laboratories for the U.S. Nuclear Regulatory Commission, 1979, (NUREG/CR-0222); the results of the study were discussed in a U.S. Nuclear Regulatory Commission Information Report, "Extension of Indemnity Coverage To Materials Licensees Other Than Those Possessing And Using Plutonium," (SECY-80-467), October 10, 1980. See also H. K. Elder, Working Paper, "Technology, Safety and Costs of Decommissioning Reference Nuclear Fuel Cycle and Non-Fuel Cycle Facilities Following Postulated Accidents," Pacific Northwest Laboratory, NUREG/CR-3293, August, 1983.

in this ANPRM. The NRC staff will consider, at a later date, the issue of financial responsibilities for the small number of licensees who have the potential to be involved in the significantly more costly cleanups postulated in the NRC funded studies.

Regulatory Precedents

A variety of state and Federal agencies have enacted financial responsibility requirements to provide assurance that funds are available for cleanup of accidental releases of various substances. Federal agencies have enacted requirements pursuant to the Motor Carrier Act, (Pub. L. 96-296), the Resource Conservation and Recovery Act, (Pub. L. 94-580), the Federal Water Pollution Control Act of 1972, (Pub. L. 92-500), Surface Mining Control and Reclamation Act of 1977 (Pub. L. 95-87), Outer Continental Shelf Lands Act, (Pub. L. 95-372), the Trans-Alaska Pipeline Authorization Act of 1973 (Pub. L. 93-153), and the Deep-Water Port Act of 1974 (Pub. L. 93-627).

The stipulated dollar requirements vary from \$10,000 to over \$5,000,000 for these different programs. As an example, the 1984 minimum levels of financial responsibility for motor carriers transporting hazardous substances ranges from between \$1,000,000 to \$5,000,000 (Motor Carrier Act of 1980). The EPA regulations for

financial responsibility for owners and operators of hazardous waste facilities (40 CFR Parts 264 and 265, Subpart H) require coverage of \$1,000,000 dollars for each sudden occurrence, with an annual aggregate of at least \$2,000,000, and \$3,000,000 for each nonsudden occurrence, with an annual aggregate of at least \$6,000,000 (Subtitle C - Hazardous Waste Management, Resource Conservation and Recovery Act).

Impacts

The Commission is aware that, if promulgated, the potential rule could impact a variety of parties. The Commission believes, however, that the benefits of such a requirement outweigh the potential costs to licensees.

If licensee funds are not promptly available for cleanup, public funds might have to be directly expended by state and Federal agencies. Even without a bankrupt licensee, there could be significant public impacts if cleanup is delayed by ensuing litigation over the responsibility and cost.

As previously mentioned, the NRC staff believes that most materials licensees have adequate financial resources for prompt cleanup of accidental releases as a matter of prudent business practice. This proposed rulemaking would have the most significant impact on those

licensees who may not be able to provide adequate financial assurances. Accordingly, the staff is especially interested in hearing from those licensees who feel they cannot demonstrate that they have sufficient resources to assure cleanup of accidental releases.

The cost to NRC licensees for meeting the financial requirements for prompt cleanup would vary, depending on the level of funding and on the type of financial assurance mechanism. There are a variety of possible legal instruments and arrangements that could be used to demonstrate that a licensee possesses adequate resources to provide funds for prompt cleanup of accidental releases of radioactive materials. They include insurance, trust funds, surety or performance bonds, escrow accounts, certificates of deposits, deposits of securities, letters of credit, a parent company guarantee, and an analysis of the licensee's financial statements.

The most expensive approach would require that a licensee put aside 100% of the estimated cost of cleanup. Examples of this approach include cash deposits, or deposits of securities. Less expensive approaches involve purchasing an insurance policy or financial instrument from a third party, such as an insurance company, bank, or financial institution with a face amount equal to the estimated costs of cleanup. Specific costs of the various financial mechanisms are not easily obtained from

licensees or from the financial and insurance institutions. Accordingly, the NRC is specifically interested in obtaining comments on the costs of these types of financial instruments in this ANPRM.

The proposed regulatory requirement would also impact NRC resources. The logistics and resource costs for amending thousands of materials licensees would be significant. The requirement would also entail an agency administrative effort for recordkeeping, auditing, and enforcement. However, the proposed financial assurance requirement could also avert substantial NRC costs resulting from lengthy enforcement proceedings and/or litigation against licensees unable to assure prompt cleanup.

SUMMARY OF FEATURES BEING CONSIDERED FOR PROPOSED RULE

The Commission is seeking comments in this ANPRM on a proposal that would require certain fuel cycle and materials licensees to demonstrate adequate financial resources for cleanup of accidental releases of radioactive materials on-site and off-site. Financial responsibility would cover cleanup for both property and environmental restoration (see footnote 2). For purposes of initial discussion, the Commission is considering a \$2,000,000 baseline as the required maximum amount of financial responsibility for materials and fuel cycle facilities. This

figure was chosen because it is in the range of known cleanup costs for NRC licensees and of other stated dollar amounts of state and federal financial responsibility requirements for cleanup of accidental releases (See "Regulatory Precedents.")

The Commission will consider, at a later date, the issue of financial responsibility for the small number of licensees who have the potential to be involved in the significantly more costly cleanups postulated in the NRC funded studies referenced in footnote 3.

The proposed rule would have the following features:

1. Carriers of radioactive materials covered by the financial responsibility requirements of the Motor Carrier Act of 1980 (P.L. 96-296) would be excluded.
2. Financial responsibility would cover both sudden and non-sudden accidental releases and would exclude authorized and predictable activities normally associated with decommissioning. The latter is being covered by the Commission's decontamination and decommissioning rulemaking.

3. Financial responsibility would cover on-site and off-site cleanup for private and public property, as well as environmental restoration of natural resources.

4. Licensed state, Federal government, or other self-insured public authorities would be excluded.

5. Types of possible acceptable financial assurances that the Commission staff is considering include:

- a. standard comprehensive general liability insurance
- b. environmental impairment liability insurance
- c. conventional property insurance
- d. non-Price Anderson nuclear liability and property insurance
- e. cash or negotiable securities held by a third party, such as a trust, or escrow account
- f. a financial test
- g. a surety or performance bond
- h. a corporate guarantee from a parent company

SPECIFIC CONSIDERATIONS

Advice and recommendations on the Commission's proposed action are invited from all interested persons, and specifically, from licensees, state officials, and representatives of the finance and insurance

industry. Comment is also invited on which licensees should be considered for exemption from this proposed requirement, as well as the availability, cost, and applicability of the various financial assurance mechanisms to provide adequate financial assurances for cleanup of accidental releases. Comments and supporting reasons are particularly requested on the following questions:

1. What criteria (such as half-life, physical form, type of encapsulation, and amount of radioactive material) should NRC use for determining the amount of coverage to be required for different classes of licensees?

2. What effect would the cost of this coverage have on licensee operations?

3. Should there be a uniform minimum amount, or a "sliding scale" requirement, to match the financial requirements to the actual risks of various types and quantities of materials possessed, or the financial size of the licensee? If so, what criteria are suggested in this regard?

4. One basis for determining the amount of coverage being considered under the Commission's proposed rulemaking would be the characteristics of the licensed material. Should the Commission exempt

licensees with certain types or quantities of radioactive materials, such as those with short half-lives with low activities? If so, what cutoff criteria should be applied?

5. Should the Commission consider increasing the amount of coverage for licensees whose facilities have poor safety and/or inspection histories?

6. What criteria should NRC use in evaluating financial assurance mechanisms?

7. With regard to comprehensive general liability and environmental impairment liability policies, the Commission staff is especially interested in hearing from offerers of these policies regarding the availability of their insurance for specified nuclear risks, as well as the terms and conditions of these types of insurance. What is the availability and premium cost of these types of policies (as well as facility form liability coverage from the nuclear insurance pools) to provide cleanup coverage for off-site sudden and non-sudden accidental or unexpected releases of radioactive materials from licensee operations, including damage to natural resources? Are the terms and conditions of these existing types of policies appropriate for covering the risks of accidental nuclear releases? If not, would the insurance industry provide this type of coverage?

8. What is the cost and availability of property insurance from the conventional insurance market and the nuclear insurance pools to provide cleanup coverage for sudden and non-sudden on-site accidental or unexpected releases of radioactive materials from materials licensees? Are the terms and conditions of these existing types of policies appropriate for covering the risks of accidental nuclear releases? If not, would the insurance industry provide this type of coverage?

9. Are there financial assurance mechanisms and insurance policies currently available to provide coverage for environmental restoration of natural resources?

10. How can the Commission ensure that funds for cleanup are promptly available when an accidental release occurs, while still preserving the rights of guarantors to evaluate whether such claims for cleanup are legitimate?

The Commission is particularly interested in hearing from both regulatory agencies with a history of administering financial responsibility programs, as well as financial and insurance institutions on this issue. Furthermore, if it appears that there is going to be a delay before the guarantor will provide funds for cleanup, and prompt cleanup is necessary for health and safety reasons, are there other avenues for cleanup funds available to the Commission or other responsible State or federal agency?

11. Should the Commission also consider requiring licensees to provide evidence of financial responsibility for the non-radiological component of cleanup of an accidental release?

12. How should the Commission consider setting up such a program so that it is promptly notified when there is a change in the financial status of the licensee?

13. Should the Commission consider differentiating between intentional and accidental releases?

LIST OF SUBJECTS

Part 30 - Byproduct material, Government contracts, Intergovernmental relations, Isotopes, Nuclear materials, Penalty, Radiation protection, Reporting and Recordkeeping requirements.

Part 40 - Government contracts, Hazardous materials - transportation, Nuclear materials, Penalty, Reporting and Recordkeeping requirements, Source material, Uranium.

Part 61 - Low-level waste, Nuclear materials, Penalty, Waste treatment and disposal.

Part 70 - Hazardous materials-transportation, Nuclear materials, Packaging and containers, Penalty, Radiation protection, Reporting and Recordkeeping requirements, Scientific equipment, Security measures, Special nuclear material.

Part 72 - Manpower training programs, Nuclear materials, Occupational safety and health, Security measures, Spent fuel, Reporting and recordkeeping requirements.

The authority citation for this document is: Section 161, Pub. L. 83-703, 68 Stat. 948 as amended (42 U.S.C. 2201).

Dated at Washington, D.C., this _____ day of _____, 1984.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,
Secretary of the Commission