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MEMORANDUM FOR: Regional Administrators

Branch Chiefs
Division of Fuel Cycle and Material Safety, NMSS

FROM: Richard E. Cunningham, Director
Division of Fuel Cycle and Material Safety, NMSS

SUBJECT: POLICY AND GUIDANCE DIRECTIVE FC 83-23: TERMINATION OF BYPRODUCT, SOURCE AND SPECIAL NUCLEAR MATERIAL LICENSES

The enclosed final rule specifies licensee responsibility and requirements for terminating a license issued under 10 CFR Parts 30, 40 and 70. Among other things, a licensee is required to submit on or before the expiration date a radiation survey report to confirm the absence of radioactive materials or to specify existing levels of residual radioactive contamination present from past operations. A survey report is not required if a licensee can demonstrate the absence of radioactive contamination in some other manner, such as the use only of sealed sources that never showed evidence of leakage. If detectable levels of residual radioactive contamination attributable to licensed operations are found, the license continues in force until the Commission notifies the licensee in writing that the license is terminated. The purpose of this memorandum is to provide guidance to the Regions and Headquarters staff on the findings that need to be made before written notification is given that the license is terminated.

Review Procedure

Before terminating a license where residual radioactive material contamination is present from past licensed operations, NRC should determine whether:

1. a reasonable effort has been made to eliminate residual contamination, and

2. residual radioactive contamination is acceptably low to permit unrestricted release of the affected facilities.

If the levels of residual radioactive contamination on surfaces and in soil are a small fraction of those normally acceptable for unrestricted release (see Section below), it is not necessary for the licensee to describe the efforts he has made to reduce contamination levels.

Policy and Guidance Directive FC 83-3: Standard Review Plan (SRP) for Termination of Special Nuclear Material Licenses for Fuel Cycle Facilities, contains information that is generally useful for terminating any byproduct, source or special nuclear material license.

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In most cases involving short half-life radionuclides or operations involving only sealed sources, an independent confirmatory survey by NRC will not be necessary. Confirmatory surveys should always be made if the licensee's survey report appears suspect or past licensee operations involved the chemical processing of hundreds of milligrams of plutonium tens of kilograms of enriched uranium 235 or hundreds of kilograms of source material. For materials licensees which used and processed hundreds of millicuries of long half-life radionuclides (> 1 yr), confirmatory surveys should also be made in all cases. If it is determined that a confirmatory survey will be made, a notice should be sent to the licensee informing him that the equipment and facilities should be held for NRC inspection. Discretion may be exercised as to whether a confirmatory survey is to be made if there is information available, such as inspection reports, which provides a basis for acceptance of the licensee's survey.

Contamination Levels Generally Acceptable for Unrestricted Release

- o Surface Contamination - See Enclosure 2
- o Soil Contamination - See Enclosure 3
- o Water Contamination - If surface or groundwater contamination is below EPA's National Interim Primary Drinking Water Regulations (EPA 570-9-76-003), the contamination is acceptable for unrestricted release.

If the levels of contamination exceed the levels discussed above and a judgment is made that further efforts to reduce the contamination is not necessary for termination of the license, an environmental impact assessment should be made to support the termination. Such cases should be brought to the attention of the Director of the Division of Fuel Cycle and Material Safety, NMSS, before the termination is dispatched.

Original Signed by
D. R. Chapell

Richard E. Cunningham, Director
Division of Fuel Cycle and
Material Safety, NMSS

Enclosures:
1. Final Rule: Amendments to 10 CFR Parts 30, 40 and 70 Specifying Licensee Responsibility for Nuclear Materials and Procedures for Termination of Specific Licenses
2. Guidelines for Decontamination of Facilites and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material
3. Table on Acceptable Soil Contamination Levels

FC
DRChapell
11/4/83

*See previous concurrence sheets

FCUP*	FCUF*	FCAF*	FCML	FCTC*	FCMC*	FC
WTCrow	RGPage/as	LCRouse	VLMiller	CEMacDonald	BSinger	RECunningham
8/8/83	8/8/83	8/8/83	11/3/83	8/12/83	8/12/83	11/4/83

For your Info
Bill Kearney
6/26/83

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 23 1983

MEMORANDUM FOR: William J. Dircks
Executive Director for Operations

FROM: Robert B. Minogue, Director
Office of Nuclear Regulatory Research

SUBJECT: FINAL RULE: AMENDMENTS TO 10 CFR PARTS 30, 40, AND 70 SPECIFYING LICENSEE RESPONSIBILITY FOR NUCLEAR MATERIALS AND PROCEDURES FOR TERMINATION OF SPECIFIC LICENSES

DISCUSSION

Background. At the present time, some NRC requirements for terminating a license are specified in the regulations, but others are implemented on an individual case basis. In particular, current regulations in 10 CFR Parts 30, 40, and 70 do not specifically address licensee responsibility for nuclear materials at the time of or following expiration of licenses or describe procedures for termination of licenses. In some cases licensees have failed to notify the Commission of their intent to terminate operations, allowed licenses to expire, and vacated the premises before the staff had an opportunity to inspect the premises for residual radioactive contamination. This situation has the potential for adverse public health and safety effects. License termination requirements are necessary to enable the Commission to determine that public health and safety are protected.

A proposed rule on the subject was approved by you and published in the Federal Register on October 26, 1982 (47 FR 47400). The draft Federal Register notice for the final rule contains an analysis of comments received on the proposed rule. No significant revisions have been made. Only changes of an editorial nature have been made in the final rule (see Enclosure A).

Final Regulations. The final rule requires each licensee, who does not apply for license renewal, to submit appropriate information concerning the disposal of nuclear materials and on the absence or presence of residual radioactive contamination. If radiation levels are suitable for release the license will be terminated. If significant residual radioactive contamination is detected, the license continues in effect, beyond the expiration date if necessary, with respect to possession of and responsibility for the residual radioactive contamination. The licensee must continue decontamination and control of contaminated areas until radiation levels are suitable for release. In addition, these licensees must submit a plan for decontamination and a final radiation survey report. Certain licensees, uranium recovery and some mill tailings disposal facilities under Part 40 and fuel fabrication licensees by license conditions, are currently required to submit plans. Requirements in this rule are supplementary to and consistent with existing requirements.

RECOMMENDATIONS AND NOTATIONS

Recommendations. It is recommended that you approve the final rule and publication of a notice in the Federal Register (see Enclosure A). The rule will be made effective 30 days following publication in the Federal Register. It is also recommended that you certify that the final rule will not have a significant economic impact on a substantial number of small entities (see REGULATORY FLEXIBILITY CERTIFICATION in Enclosure A and the REGULATORY ANALYSIS, Enclosure B).

Notations. (1) The information collection requirements of this rule have been approved by the Office of Management and Budget (see Enclosure A). (2) No additional NRC resource requirements are anticipated as a result of this action. (3) The Agreement States reviewed a draft of the proposed rule and were informed of the proposed rulemaking. Additional rulemaking on the broad issues of decommissioning will be forthcoming from NRC, which will supplement this termination of license rule. Therefore, we will provide guidance then on the need for the States to adopt any portions of this rule to maintain compatibility. This will avoid the possibility of requiring States to amend their regulations twice in a relatively short period. (4) The Subcommittee on Nuclear Regulation of the Senate Committee on Environment and Public Works, the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs, and the Subcommittee on Energy Conservation and Power of the House Committee on Energy and Commerce will be notified of the Commission's action by letter such as Enclosure C.

for Robert B. Minogue, Director
Office of Nuclear Regulatory Research

Approved for Publication

In a final rule published March 19, 1982 (47 FR 11816), the Commission delegated to the EDO (10 CFR 1.40(c) and (d)) the authority to develop and promulgate rules as defined in the APA (5 U.S.C. 551(4)) subject to the limitations in NRC Manual Chapter 0103, Organization and Functions, Office of the Executive Director for Operations, paragraphs 0213, 038, 039, and 0310. The enclosed final rule entitled, "Amendments to 10 CFR Parts 30, 40, and 70 Specifying Licensee Responsibility for Nuclear Materials and Procedures for Termination of Specific Licenses" sets forth amendments that establish a licensee's responsibility for nuclear materials and procedures for orderly termination of specific licenses issued under 10 CFR Parts 30, 40, and 70. The final rule specifies that a license remains in effect, with respect to residual nuclear materials present as contamination, until the Commission notifies the licensee in writing that the license is terminated. The proposed rule is necessary to establish clear procedures for termination of licenses in order to establish a more coherent regulatory framework.

The final rule does not constitute a significant question of policy, nor does it amend regulations contained in 10 CFR Parts 0, 2, 7, 8, 9 Subpart C, or 110. I, therefore, find this rule is within the scope of my rulemaking authority and am proceeding to issue it.

6/24/83
(Date)

William J. Dircks
Executive Director for Operations

Enclosures:
A - Proposed Federal Register Notice
B - Regulatory Analysis
C - Draft Congressional Letter
D - Notice for Inclusion in Weekly Information Report

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 30, 40, and 70

Amendments Specifying Licensee Responsibility for Nuclear Materials and Procedures for Termination of Specific Licenses

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission is amending its regulations to specify procedures for the termination of specific licenses authorizing possession and use of nuclear materials. The amendments clarify a licensee's authority and responsibility for nuclear materials and allow for orderly termination of specific licenses. The rule specifies that a license remains in effect, with respect to possession of residual nuclear materials present as contamination, until the Commission notifies the licensee, in writing, that the license is terminated. The rule is necessary to establish clear procedures for the termination of licenses and to establish a more coherent regulatory framework.

EFFECTIVE DATE: (Insert a date 30 days following publication in the Federal Register.)

FOR FURTHER INFORMATION CONTACT: K. G. Steyer, Chief, Chemical Engineering Branch, Office of Nuclear Regulatory Research, Nuclear Regulatory Commission, Washington, DC 20555, telephone (301)443-5910.

SUPPLEMENTARY INFORMATION:

BACKGROUND

On October 26, 1982, the Nuclear Regulatory Commission published in the Federal Register (47 FR 47400) a notice of proposed amendments to 10 CFR Parts 30, 40, and 70. The notice set forth procedures that a licensee would follow in terminating a specific nuclear materials license and clarified a licensee's responsibility for nuclear materials.

DISCUSSION

Need for the rule. Previously, the Commission's regulations required licensees under 10 CFR Parts 30, 40, and 70 to notify the Commission, in writing, when the licensee decided to terminate operations. This requirement is continued in the final rule. Licensees were not required by regulation to describe the disposition of nuclear materials authorized under the license or to characterize radiological conditions at the time of license termination. The Commission has requested information concerning disposition of nuclear materials and decontamination on an individual-case-basis. Information concerning residual radioactive contamination has been requested only where it was suspected of being a problem. The rule is necessary to establish clear procedures for termination of licenses and to establish a more coherent regulatory framework. It will enable the Commission to determine that there is no significant risk to public health and safety before a licensee's responsibility for nuclear materials is terminated.

Requirements established by the rule. The rule requires each licensee, who does not apply for license renewal, to submit appropriate information concerning the disposal of licensed nuclear materials and on the absence or presence of residual radioactive contamination. If radiation levels are suitable for release, the Commission will notify the licensee, in writing, that the license is terminated.

If significant residual radioactive contamination is detected, the license continues in force, beyond the expiration date if necessary, with respect to possession of and responsibility for the residual radioactive contamination. The licensee must continue decontamination and control of contaminated areas until radiation levels are suitable for release and the Commission notifies the licensee, in writing, that the license is terminated. In addition the licensee must submit a plan for decontamination and a final radiation survey report.

Analysis of Public Comments

The Federal Register notice provided a 60-day period for public comment. Letters containing a total of 21 comments were received from 12 commenters. Six letters were from electric power and utility companies (10 CFR Part 50 licensees), one from a nuclear fuel cycle licensee, three from consultant groups, and two from State and Federal agencies. Three comments specifically expressed support for the proposed rule and the remainder (18) suggested revisions, additions, and clarification. No comments specifically opposed the proposed rulemaking action. Copies of the comments may be examined in the Commission's Public Document Room at 1717 H Street NW, Washington, DC. The NRC response to the comments is presented below.

1. Comment. Many comments were directed at residual radioactivity levels. One commenter said that the rule requires a licensee to certify that no detectable radioactive contamination was found and that without specification of a lower level of detection the no detectable criteria standard is meaningless. Another commenter said that the word "detectable" should be replaced with the word "significant" [the commenter suggested that "significant" be defined as : Beta-gamma exposure rates which are greater than twice background and/or soil councentrations of natural uranium greater than 40 picocuries per gram or radium-226 concentrations greater than 20 picocuries per gram.]. Another commenter suggested that the rule changes should define the release criteria or "de minimis" radioactivity below which no further licensee control or decontamination is necessary, and referenced an NRC Inspection and Enforcement bulletin for

criteria. Another commenter said that an upper level for nondetectable radioactive contamination needs to be established and that the statement "suitable for release for unrestricted use" needs clarification.

Response. Residual and "de minimis" radioactivity levels are outside the scope of this rule. The issue of residual radioactivity levels suitable for release for unrestricted use will be considered in a separate rulemaking action. Meanwhile, NRC will continue to provide guidance, on an individual-case-basis, on suitable levels of residual contamination for unrestricted release.

The rule requires that radiation survey reports be submitted unless the licensee can demonstrate the absence of residual radioactive contamination in some other manner. Further, the rule requires that survey instruments used in making radiation surveys be identified. Using these data the staff can determine a lower level of detection for the specific radionuclide involved and the validity of a radiation survey. There is no requirement to define lower level of detection in this rule. The reason for using the criterion of detectability is that a large number of small licensees (e.g., licensees with sealed sources and small possession limits) can demonstrate absence of residual radioactive contamination with minimal effort and expense.

2. Comment. A comment indicated that there should be standards for NRC's decision on whether a radiation survey report is required or not.

Response. The standard used by the staff in this determination is whether or not there may be significant amounts of residual radioactive contamination. In a large number of cases (e.g., where only sealed sources were used, or where short half-life and relatively small quantities of nuclear materials are possessed) a radiation survey report will not be necessary. Clarification is believed to be desirable and the rule is revised to indicate that submittal of a radiation survey report is not necessary if the licensee can demonstrate the absence of residual radioactive contamination without conducting a special radiation survey.

3. Comment. A comment stated that NRC should establish standards for determining when a decontamination plan is to be submitted.

Response. The Regulatory Flexibility Act section in the preamble of the proposed rule discussed this matter. It said that in some cases detectable residual contamination may be present, but the level may be suitable for release. In these cases, the licensee would not be required to submit a plan for decontamination. As indicated in the response to comment number 1, the NRC will provide guidance concerning suitable levels for release on an individual-case-basis.

4. Comments. Two comments were received concerning the statement in the preamble that read, "Prescribed fees for licensing services rendered by NRC would continue to be applicable until a license is terminated." One comment stated that NRC regulations do not contain prescribed fees for license-termination services rendered by NRC. It said further that since NRC services rendered during termination of a license would not be comparable to services rendered during license renewal, it is not appropriate to charge the same fees. The comment suggested that NRC estimate, in the same manner used to derive the figures in 10 CFR Part 170, the time involved in terminating a license and establish a corresponding limit on the fees to be charged to a licensee for license termination. The other comment stated that the fees prescribed for licensing services associated with residual nuclear materials should be significantly less than those prescribed for the originally-licensed facility.

Response. It is present Commission policy not to charge fees for Parts 30, 40, and 70 applications requesting termination of licenses. The language questioned by these comments was intended to mean that if any routine inspection was conducted before or after the expiration date of the license but before the license was terminated, the Commission would assess a fee for the inspection since the license was valid at the time the inspection was conducted. Under the current fee schedule, any non-routine (close-out) inspection is not charged to the licensee.

5. Comment. One comment stated that the word "immediately" [in §§ 30.36(b), 40.42(b), and 70.38(b) in regard to written notification when a licensee decides to terminate operations] should be clarified or defined. This comment suggested that licensees should notify the Commission 90 days prior to vacating the premises.

Response. A licensee may decontaminate and terminate projects at any time under an active license. However, license termination procedures can be most expeditiously followed if a licensee notifies the Commission as soon as the licensee decides to terminate operations. The intent of the rule is that decontamination should be accomplished and the license terminated as soon as practical, after the licensee decides to terminate operations.

6. Comment. One comment suggested that licensees should be allowed to continue some or all normal activities while decontamination activities are conducted.

Response. Normal operating activities can be continued during decontamination as long as the license has not expired. But, unless the licensee makes timely application for license renewal, nuclear materials must be transferred or disposed of before the license expiration date. Only activities related to decontamination and control of nuclear materials are permitted beyond the license expiration date, unless a timely license renewal application has been submitted (i.e., 30 days or more before the license expiration date).

7. Comment. A concern of several public utility companies (10 CFR Part 50 licensees) is how the new rule affects them in relation to licenses issued to possess and use nuclear materials under 10 CFR Parts 30, 40, and 70.

Response. Production and utilization facility licensees (10 CFR Part 50 licensees) may be issued licenses to possess and use byproduct, source, and/or special nuclear material, before they receive an Operating License for the facility. If the license to possess and use nuclear materials expires before an Operating License is issued, it must be renewed or terminated. Renewal is usually accomplished by amending the nuclear materials license to extend the expiration date, which is done by license condition. If the holder of a Construction Permit decides to terminate a nuclear materials license, e.g., a new fuel license issued under Part 70, before a Part 50 Operating License is issued, the requirements of this rule apply. When a Part 50 Operating License is issued, the nuclear materials license is automatically terminated. Requirements for possession

and use of nuclear materials are contained in the Part 50 Operating License and the requirements of this rule do not apply. No revision to the rule is necessary to accommodate these comments.

8. Comment. One comment stated that the substance of Form 314 was not made part of the rule nor the explanation of the proposed rule. The comment suggested it be made part the final rule.

Response. NRC Form 314, "Certification of Disposition of Materials," is sent to each NRC materials licensee 90 days before expiration of the license. This form requests information as to whether or not nuclear materials have been procured. It also requests information concerning disposal of nuclear materials, such as transfer to an NRC licensee, transfer to an Agreement State licensee, or disposal in some other manner. NRC Form-314 is used to obtain information concerning termination of specific licenses. OMB recently approved this form under approval number 3150-0028. As part of the approval process it was determined that this form, and the information required by it, is the best method of obtaining this information. Because the information required by the form is not a subject of this rulemaking action, it is not necessary to include the contents of the form in the rule.

9. Comment. One comment stated that there was no mention in the proposed rule as to the effective date of the amendments and whether licensees who have submitted requests for decommissioning or license termination prior to the passage of the rule are exempt.

Response. These amendments will codify procedures that are currently being used on an individual-case-basis. This rule does not significantly alter existing procedures. It is intended that the rule changes be made effective in the usual manner, that is 30 days following notice of final rulemaking published in the Federal Register. The provisions of the rule are applicable to any licensee who decides to terminate a license after this date.

Changes from proposed rule. There have been no significant revisions to the proposed rule as a result of public comments or reviews during final rulemaking procedures. However, several changes of a clarifying or editorial nature have been made. The changes are as follows:

1. Editorial changes have been made in §§ 30.36(b) and (e), 40.42(b) and (e), and 70.38(b) and (e).

2. It was apparently not clear in the proposed rule that licensees may decontaminate affected facilities prior to the license expiration date. Changes have been made in §§ 30.36(d)(1) and (3), 40.42(d)(1) and (3), and 70.38(d)(1) and (3) to clarify that licensees are authorized to conduct decontamination activities, in fact must decontaminate to the extent practicable, before the license expires.

3. Changes have been made in §§ 30.36(d)(1)(v)(A) and (B), 40.42(d)(1)(v)(A) and (B), and 70.38(d)(1)(v)(A) and (B) to (1) clarify that submittal of a radiation survey report is not necessary if a licensee can demonstrate absence radioactive contamination without conducting a survey, (2) add units for reporting radioactive contamination in water and indicate that not all of the units listed are appropriate for all licensees, and (3) specify that instruments used in radiation surveys must be working properly.

ENVIRONMENTAL IMPACT

These amendments clarify requirements for termination of a licensee's responsibility for nuclear materials. The amendments do not add substantive requirements from an environmental viewpoint. Environmentally they are nonsubstantive and insignificant. No environmental impact statement, appraisal, or negative declaration needs to be prepared under 10 CFR 51.5(d)(3).

PAPERWORK REDUCTION ACT STATEMENT

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3510, et. seq.). These requirements were approved by the Office of Management and Budget under approval numbers: Part 30 - 3150-0017; Part 40 - 3150-0020; and Part 70 - 3150-0009.

REGULATORY ANALYSIS

The NRC has prepared a regulatory analysis on this regulation. The analysis examines the benefits and costs of the alternatives considered by the staff. Interested parties may examine a copy of the regulatory analysis at the Commission's Public Document Room at 1717 H Street NW, Washington, DC. Single copies of the analysis may be obtained from W. R. Pearson, Chemical Engineering Branch, Office of Nuclear Regulatory Research, Nuclear Regulatory Commission, Washington, DC 20555, telephone (301)443-5910.

REGULATORY FLEXIBILITY CERTIFICATION

In accordance with the Regulatory Flexibility Act of 1980, the Executive Director for Operations certifies that this action will not have a significant economic impact on a substantial number of small entities.

The rule applies to the Commission's approximately 8,100 materials licensees under 10 CFR Parts 30-35, 40, and 70. These licensees include about 5,000 byproduct material licenses under Parts 30, 32, 33, and 34, 2,000 medical licenses under Part 35, 400 source material licenses under Part 40, and 700 special nuclear material licenses under Part 70. The rule affects about 200 NRC licensees per year who wish to terminate operations.

The NRC estimates that about 90% of the affected licensees would be considered small entities under the criteria set out in the size standards of the Small Business Administration in 13 CFR Part 121 (e.g., most licensees with less than 500 employees, hospitals with less than 150 beds, other medical licenses with less than $1.5 million annual gross receipts). In developing the rule, the NRC specifically considered the potential problems that would face a small entity under these requirements. The NRC has attempted to structure the requirements to mitigate the economic effect of the rule on small entities to the extent possible considering the Commission's responsibility for public health and safety.

Although there is not an absolute correlation between the size of a licensee and the requirements of the regulation, in general, the regulation will have minimal incremental impact on most small licensees.

This rule specifies the procedures to be followed when a licensee desires to terminate a materials license. Each licensee is required to -

1. Submit a form NRC-314 that describes the disposal of licensed materials;

2. Submit a final radiation survey, unless the licensee demonstrates the absense of residual radioactive contamination in some other manner; and either

3. Submit a certification that residual radioactive contamination attributable to activities conducted under the license is not detectable; or

4. Where residual radioactive contamination is present, submit a radiation survey report and a plan for decontamination, if required. In some cases, detectable residual contamination may be present, but the level may be suitable for release. In these cases, the licensee will not be required to submit a plan for decontamination.

The NRC believes that about 99% of the small entities affected by the rule will be able to comply with the requirements by following the simplest procedure. These licensees would submit a form NRC-314 and certify that no residual contamination attributable to activities conducted under the license is present. Data collection for form NRC-314 is similar to actions performed during regular operations. Some clerical and management time is required to complete the form and submit it. The average impact on small licensees, as a result of requiring submittal of a form NRC-314, is estimated to be less than an hour at an approximate cost of $20. Submittal of a certification letter would require only clerical and management personnel. Preparation and submittal of this letter would probably require about an hour at an approximate cost of $20. NRC Form-314, as approved by OMB, has been revised to contain provisions for certification, which will reduce this cost. It is estimated that the total impact on small licensees under the simple procedure will be about one-half person-day of effort at an approximate cost of $80. Some licensees will also be required to submit a final radiation survey

report. However, many licensees will not, in particular licensees with sealed sources and byproduct licensees with small license possession limits and short half-life materials. A radiation survey must be conducted by qualified personnel (usually a health physics technician), the report assembled, and submitted. In cases involving extensive contaminated areas some land surveying, sample drilling, and special analyses may be involved. These actions involve health physics, management, clerical, and possibly other types of personnel. On the average for small licensees the impact of submitting radiation survey reports is estimated to be less than one-half person-day at a cost of approximately $80. For some larger licensees the average is estimated to be about two person-days at a cost of approximately $320.

The NRC believes that less than 1% of the affected small licensees will be required to submit a decontamination plan. This action will require the average small licensee to expend about one-half person-day of effort at an approximate cost of $80. A comparable effort might require the average larger licensee to expend about four person-days of effort an approximate cost of $640. Preparation and submittal of a decontamination plan requires use of technical, management, clerical, and possibly other types of personnel. Preparation of this plan would be facilitated by using technical and management personnel familiar with the operations.

LIST OF SUBJECTS IN 10 CFR PARTS 30, 40, AND 70

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

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

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

FINAL RULEMAKING

The NRC is adopting the following amendments to 10 CFR Parts 30, 40, and 70 under the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 553.

PART 30 - RULES OF GENERAL APPLICABILITY TO DOMESTIC LICENSING OF BYPRODUCT MATERIAL

1. The authority citation for Part 30 is revised to read as follows:

AUTHORITY: Secs. 81, 82, 161, 182, 183, 186, 68 Stat. 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2111, 2112, 2201, 2232, 2236, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 30.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 295 (42 U.S.C. 5851). Section 30.34(b) also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Section 30.61 also issued under sec. 187, 68 Stat. 955 (42 U.S.C. 2237).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 30.3, 30.34(b) and (c), 30.41(a) and (c) and 30.53 are issued under sec. 161b., 68 Stat. 948 as amended (42 U.S.C. 2201(b)); and §§ 30.36, 30.51, 30.52, and 30.55 issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. Remove the authority citations following:

Sections 30.3, 30.4, 30.5, 30.11, 30.12, 30.13, 30.14, 30.15, 30.16, 30.18, 30.19, 30.20, 30.31, 30.32, 30.33, 30.34, 30.39, 30.41, 30.51, 30.53, 30.55, 30.61, and 30.71.

§ 30.34 [Amended]

3. Section 30.34 is amended by removing and reserving paragraph (f).

4. Section 30.36 is revised to read as follows:

§ 30.36 Expiration and termination of licenses.

(a) Except as provided in § 30.37(b) and paragraph (d)(3) of this section, each specific license expires at the end of the day, in the month and year stated in the license.

(b) Each licensee shall notify the Commission immediately, in writing under § 30.6, and request termination of the license when the licensee decides to terminate all activities involving materials authorized under the license. This notification and request for termination of the license must include the reports and information specified in paragraphs (d)(1)(iv) and (v) of this section. The licensee is subject to the provisions of paragraphs (d) and (e) of this section, as applicable.

(c) No less than 30 days before the expiration date specified in a specific license, the licensee shall either -

(1) Submit an application for license renewal under § 30.37; or

(2) Notify the Commission, in writing under § 30.6, if the licensee decides not to renew the license.

(d)(1) If a licensee does not submit an application for license renewal under § 30.37, the licensee shall, on or before the expiration date specified in the license -

(i) Terminate use of byproduct material;

(ii) Remove radioactive contamination to the extent practicable;

(iii) Properly dispose of byproduct material;

(iv) Submit a completed form NRC-314; and

(v) Submit a radiation survey report to confirm the absence of radioactive materials or to establish the levels of residual radioactive contamination, unless the licensee demonstrates the absence of residual radioactive contamination in some other manner. The licensee shall, as appropriate -

(A) Report levels of radiation in units of microrads per hour of beta and gamma radiation at one centimeter and gamma radiation at one meter from surfaces and report levels of radioactivity in units of disintegrations per minute (or microcuries) per 100 square centimeters removable and fixed on surfaces, microcuries per milliliter in water, and picocuries per gram in contaminated solids such as soils or concrete; and

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

(2) If no residual radioactive contamination attributable to activities conducted under the license is detected, the licensee shall submit a certification that no detectable radioactive contamination was found. If the information submitted under this paragraph and paragraphs (d)(1)(iv) and (v) of this section is adequate, the Commission will notify the licensee in writing that the license is terminated.

(3)(i) If detectable levels of residual radioactive contamination attributable to activities conducted under the license are found, the license continues in effect beyond the expiration date, if necessary, with respect to possession of residual byproduct material present as contamination until the Commission notifies the licensee in writing that the license is terminated. During this time, the licensee is subject to the provisions of paragraph (e) of this section.

(ii) In addition to the information submitted under paragraphs (d)(1)(iv) and (v) of this section the licensee shall submit a plan for decontamination, if required, as regards residual radioactive contamination remaining at the time the license expires.

(e) Each licensee who possesses residual byproduct material under paragraph (d)(3) of this section, following the expiration date specified in the license shall -

(1) Limit actions involving byproduct material to those related to decontamination and other activities related to preparation for release for unrestricted use; and

(2) Continue to control entry to restricted areas until they are suitable for release for unrestricted use and the Commission notifies the licensee in writing that the license is terminated.

PART 40 - DOMESTIC LICENSING OF SOURCE MATERIAL

5. The authority citation for Part 40 is revised to read as follows:

AUTHORITY: Secs. 62, 63, 64, 65, 81, 161, 182, 183, 186, 68 Stat. 932, 933, 935, 948, 953, 954, 955, as amended, secs. 11e(2), 83, 84, Pub.

L. 95-604, 92 Stat. 3033, as amended, 3039, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2014(e)(2), 2092, 2093, 2094, 2095, 2111, 2113, 2114, 2201, 2232, 2233, 2236, 2282); secs. 274, Pub. L 86-373, 73 Stat. 688 (42 U.S.C. 2021); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 40.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Section 40.31 (g) also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Section 40.46 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Section 40.71 also issued under sec. 187, 68 Stat. 955 (42 U.S.C. 2237).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 40.3, 40.25(d)(1)-(3), 40.35(a)-(d), 40.41(b) and (c), 40.46, 40.51(a) and (c), and 40.63 are issued under sec. 161b, 68 Stat. 948, as amended, (42 U.S.C. 2201(b)); and §§ 40.25(c) and (d)(3) and (4), 40.26(c)(2), 40.35(e), 40.42, 40.61, 40.62, 40.64 and 40.65 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

6. Remove the authority citations following:

Sections 40.1, 40.2a, 40.3, 40.4, 40.11, 40.13, 40.14, 40.21, 40.22, 40.25, 40.26, 40.31, 40.32, 40.34, 40.35, 40.41, 40.45, 40.51, 40.61, 40.62, 40.63, 40.64, 40.65, 40.71, and Appendix A.

§ 40.41 [Amended]

7. Section 40.41 is amended by removing paragraph (f).

8. Section 40.42 is revised to read as follows:

§ 40.42 Expiration and termination of licenses.

(a) Except as provided in § 40.43(b) and paragraph (d)(3) of this section, each specific license expires at the end of the day, in the month and year stated in the license.

(b) Each licensee shall notify the Commission immediately, in writing under § 40.5, and request termination of the license when the licensee decides to terminate all activities involving materials authorized under the license. This notification and request for termination of the license

must include the reports and information specified in paragraphs (d)(1)(iv) and (v) of this section. The licensee is subject to the provisions of paragraphs (d) and (e) of this section, as applicable.

(c) No less than 30 days before the expiration date specified in a specific license the licensee shall either -

(1) Submit an application for license renewal under § 40.43; or

(2) Notify the Commission, in writing under § 40.5, if the licensee decides not to renew the license.

(d)(1) If a licensee does not submit an application for license renewal under § 40.43, the licensee shall, on or before the expiration date specified in the license -

(i) Terminate use of source material;

(ii) Remove radioactive contamination to the extent practicable;

(iii) Properly dispose of source material;

(iv) Submit a completed form NRC-314; and

(v) Submit a radiation survey report to confirm the absence of radioactive materials or to establish the levels of residual radioactive contamination, unless the licensee demonstrates the absence of residual radioactive contamination in some other manner. The licensee shall, as appropriate -

(A) Report levels of radiation in units of microrads per hour of beta and gamma radiation at one centimeter and gamma radiation at one meter from surfaces and report levels of radioactivity in units of disintegrations per minute (or microcuries) per 100 square centimeters removable and fixed on surfaces, microcuries per milliliter in water, and picocuries per gram in contaminated solids such as soils or concrete; and

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

(2) If no residual radioactive contamination attributable to activities conducted under the license is detected, the licensee shall submit a certification that no detectable radioactive contamination was found. If the information submitted under this paragraph and paragraphs (d)(1)(iv) and (v) of this section is adequate, the Commission will notify the licensee in writing that the license is terminated.

(3)(i) If detectable levels of residual radioactive contamination attributable to activities conducted under a license are found, the license continues in effect beyond the expiration date, if necessary, with respect to possession of residual source material present as contamination until the Commission notifies the licensee in writing that the license is terminated. During this time the licensee is subject to the provisions of paragraph (e) of this section.

(ii) In addition to the information submitted under paragraphs (d)(1)(iv) and (v) of this section the licensee shall submit a plan for decontamination, if required, as regards residual radioactive contamination remaining at the time the license expires.

(e) Each licensee who possesses residual source material under paragraph (d)(3) of this section, following the expiration date specified in the license, shall -

(1) Limit actions involving source material to those related to decontamination and other activities related to preparation for release for unrestricted use; and

(2) Continue to control entry to restricted areas until they are suitable for release for unrestricted use and the Commission notifies the licensee in writing that the license is terminated.

9. Section 40.71 is amended by removing paragraph (d) and revising the section heading to read as follows:

§ 40.71 Modification and revocation of licenses.

* * * * *

PART 70 - DOMESTIC LICENSING OF SPECIAL NUCLEAR MATERIAL

10. The authority section for Part 70 is revised to read as follows:

AUTHORITY: Secs. 51, 53, 161, 182, 183, 68 Stat. 929, 930, 948, 953, 954, as amended, (42 U.S.C. 2071, 2073, 2201, 2232, 2233); secs. 201, as amended, 202, 204, 206, 88 Stat. 1242, as amended, 1244, 1245, 1246 (42 U.S.C. 5841, 5842, 5845, 5846).

Section 70.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Section 70.21(g) also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Section 70.31 also issued under sec. 57d, Pub. L. 93-377, 88 Stat. 475 (42 U.S.C. 2077). Sections 70.36 and 70.44 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Section 70.61 also issued under secs. 186, 187, 68 Stat. 955 (42 U.S.C. 2236, 2237). Section 70.62 also issued under sec. 108, 68 Stat. 939, as amended (42 U.S.C. 2138).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273), §§ 70.3, 70.19(c), 70.24(a) and (b), 70.32(a)(3), (5), (6), and (d), 70.36, 70.39(b) and (c), 70.41(a), 70.42(a) and (c), 70.56, 70.57(b), (c) and (d), 70.58(a)-(g)(3), and (h)-(j) are issued under sec. 161b, 68 Stat. 948 as amended (42 U.S.C. 2201(b)); §§ 70.20a(d), 70.20b (c) and (e), 70.21(c), 70.24(b), 70.32(e) and (g), 70.56, 70.57(b) and (d) and 70.58(a)-(g)(3), and (h)-(j) are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§ 70.20b(d) and (e), 70.38 70.51-70.55, 70.58(g)(4), (k), and (l) and 70.59 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

11. Remove the authority citations following:

Sections 70.1, 70.3, 70.4, 70.11, 70.14, 70.19, 70.22, 70.23, 70.31, 70.32, 70.36, 70.39, 70.41, 70.42, 70.44, 70.51, 70.53, 70.54, 70.55, 70.57, 70.59, 70.61, 70.62, 70.71.

12. Section 70.32 is amended by removing and reserving paragraph (h) and revising paragraph (a) to read as follows:

§ 70.32 Conditions of licenses.

(a) Each license shall contain and be subject to the following conditions:

* * * * *

(h) (Reserved)

* * * * *

13. A new § 70.38 is added to read as follows:

§ 70.38 Expiration and termination of licenses.

(a) Except as provided in § 70.33(b) and paragraph (d)(3) of this section each specific license expires at the end of the day, in the month and year stated in the license.

(b) Each licensee shall notify the Commission immediately, in writing under § 70.5, and request termination of the license when the licensee decides to terminate all activities involving materials authorized under the license. This notification and request for termination of the license must include the reports and information specified in paragraphs (d)(1)(iv) and (v) of this section. The licensee is subject to the provisions of paragraphs (d) and (e) of this section, as applicable.

(c) No less than 30 days before the expiration date specified in a specific license the licensee shall either -

(1) Submit an application for license renewal under § 70.33; or

(2) Notify the Commission, in writing under § 70.5, if the licensee decides not to renew the license.

(d)(1) If a licensee does not submit an application for license renewal under § 70.33, the licensee shall, on or before the expiration date specified in the license -

(i) Terminate use of special nuclear material;

(ii) Remove residual radioactive contamination to the extent practicable;

(iii) Properly dispose of special nuclear material;

(iv) Submit a completed form NRC-314; and

(v) Submit a radiation survey report to confirm the absence of radioactive materials or to establish the level of residual radioactive contamination, unless the licensee demonstrates the absence of residual radioactive contamination in some other manner. The licensee shall, as appropriate -

(A) Report levels of radiation in units of microrads per hour of beta and gamma radiation at one centimeter and gamma radiation at one meter from surfaces and report levels of radioactivity in units of disintegrations per minute (or microcuries) per 100 square centimeters removable and fixed on surfaces, microcuries per milliliter in water, and picocuries per gram in contaminated solids such as soils or concrete; and

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

(2) If no residual radioactive contamination attributable to activities conducted under the license is detected, the licensee shall submit a certification that no detectable radioactive contamination was found. If the information submitted under this paragraph and paragraphs (d)(1)(iv) and (v) of this section is adequate, the Commission will notify the licensee in writing that the license is terminated.

(3)(i) If detectable levels of residual radioactive contamination attributable to activities conducted under the license are found, the license continues in effect beyond the expiration date, if necessary, with respect to possession of residual special nuclear material present as contamination until the Commission notifies the licensee in writing that the license is terminated. During this time the licensee is subject to the provisions of paragraph (e) of this section.

(ii) In addition to the information submitted under paragraphs (d)(1)(iv) and (v) of this section the licensee shall submit a plan for decontamination, if required, as regards residual radioactive contamination remaining at the time the license expires.

(e) Each licensee who possesses residual special nuclear material under paragraph (d)(3) of this section, following the expiration date specified in the license shall -

(1) Limit actions involving special nuclear material to those related to decontamination and other activities related to preparation for release for unrestricted use; and

(2) Continue to control entry to restricted areas until they are suitable for release for unrestricted use and the Commission notifies the licensee in writing that the license is terminated.

Dated at Bethesda, Maryland this _____ day of _____, 1983.

For the Nuclear Regulatory Commission.

_____
William J. Dircks,
Executive Director for Operations.

REGULATORY ANALYSIS

Amendments to 10 CFR Parts 30, 40, and 70 Specifying Licensee Responsibility for Nuclear Materials and Procedures for Termination of Specific Licenses

1. STATEMENT OF PROBLEM

Some NRC requirements for terminating licenses issued under 10 CFR Parts 30, 40, and 70 are specified in the regulations. But some requirements are implemented on an individual case basis. In particular existing regulations in 10 CFR Parts 30, 40, and 70 do not specifically address responsibility for nuclear materials at the time of or following expiration of licenses or describe procedures for termination of specific licenses. This rule will apply to over 8,000 Commission licensees under 10 CFR Parts 30, 40, and 70, and will affect about 200 licensees per year who decide to permanently discontinue activities. It codifies procedures that licensees must follow in terminating a license and specifies licensees' responsibility regarding residual nuclear materials.

2. OBJECTIVES

The staff focused on the following objectives in developing this final rule:

2.1 To clarify 10 CFR Parts 30, 40, and 70 licensees' responsibility for nuclear materials as regards termination of specific licenses,

2.2 To promulgate procedures that licensees must follow in terminating specific licenses issued under 10 CFR Parts 30, 40, and 70,

2.3 To consider the economic impact on licensees, especially small licensees, and promulgate a rule that is commensurate with the Commission's responsibility for public health and safety, and

2.4 To consider and select the appropriate procedural approach for issuing the requirements.

3. ALTERNATIVES

The alternatives considered for each of the objectives in Section 2 of this regulatory analysis are discussed below.

3.1 Clarify Licensee's Responsibility for Nuclear Materials

3.1.1 No action. At the present time, some NRC requirements for terminating a license are specified in the regulations, but others are implemented on an individual-case-basis. In particular, current regulations in 10 CFR Parts 30, 40, and 70 do not specifically address licensee responsibility for nuclear materials at the time of or following expiration of licenses or describe procedures for termination of licenses. In some cases licensees have failed to notify the Commission of their intent to terminate operations, allowed licenses to expire, and vacated premises before the staff was aware of or had opportunity to inspect the premises for residual radioactive contamination. This situation has the potential for adverse public health and safety effects. Clarification of license termination requirements is believed necessary to protect public health safety.

3.1.2 Rulemaking action. For reasons stated in the Value/Impact Analysis for the proposed rule and discussed in this Regulatory Analysis, rulemaking action is considered necessary. Sections 3.1.2.1 through 3.1.2.4 discuss alternatives considered in developing this rule.

3.1.2.1 Chosen Alternative. The major concern is to establish that the licensee is responsible for safe control of nuclear materials. Safe control of nuclear materials extends until the licensee meets conditions for unrestricted

release of nuclear facilities, regardless of the expiration date specified in the license. The expiration date is the mechanism used by the staff to periodically update safety and environmental information related to a license. Thus, a license expiration date is retained. The alternatives selected, as minimum requirements, are that licensees (1) notify the Commission in writing when the licensee decides to permanently discontinue operations, (2) terminate use of nuclear materials, (3) dispose of readily removable nuclear materials, and (4) certify the absence of residual radioactive contamination or demonstrate that radiation levels are suitable for release before the license is terminated. If there is a significant amount of residual radioactive contamination, the license continues in effect, as regards residual radioactive contamination, until decontamination is complete. The licensee must continue decontamination and control of contaminated areas, until radioactive contamination levels are suitable for release, and the Commission notifies the licensee that the license is terminated.

3.1.2.2 Alternative. One comment received during the comment period suggested that licensees be allowed to continue some or all of their normal activities during decontamination. Normal activities could be continued during decontamination, provided these activities are completed before the license expiration date. But, unless the licensee makes timely application for license renewal (i.e., 30 days or more before the license expiration date), nuclear materials shall be transferred or disposed of before the license expires. Only activities related to decontamination and control of nuclear materials are permitted beyond the license expiration data, unless timely license renewal is requested.

3.1.2.3 Alternative. In some cases licensees permit their license to expire, but still possess nuclear materials and desire to continue licensed activities. In some cases licensees who wish to terminate their license cannot find authorized recipients for their materials. It was suggested that this rule require licensees in these situations to place all licensed materials into secure storage. The rule was not modified in this respect because this rule is concerned with terminating licenses. In order to terminate licenses authorizing possession and use of nuclear materials, proper disposal of the

nuclear material is essential. That is, readily removable nuclear materials must be transferred or otherwise disposed of in some authorized manner. Residual radioactive contamination should be removed before the license expires, but this is not always possible because of the time required for decontamination in some cases. As for retention of readily removable nuclear materials, this is best handled through existing procedures for license renewal or through amendment of the license. Any licensee who retains readily removal nuclear materials beyond the license expiration date must have Commission approval.

3.1.2.4 Alternative. The normal method for demonstrating the absence of radioactive contamination is through the use of a radiation survey. However, in many cases; e.g., licensees who do not possess nuclear materials, licensees with small possession limits, licensees with non-leaking sealed sources; a radiation survey is not necessary. Licensees who possess and use uncontained nuclear materials will be required to submit a radiation survey, unless the licensee can demonstrate the absence of radioactive contamination in some other manner. The final rule is modified to reflect this intent more clearly.

3.2 Procedures for Termination of Licenses

3.2.1 Notify the Commission when the Licensee Decides to Permanently Discontinue Activities. This is an existing regulation. No alternative was considered.

3.2.2 Terminate Use of Nuclear Materials. See discussion under Section 3.1.2.2.

3.2.3 Properly Dispose of Nuclear Materials. See discussion under Section 3.1.2.3.

3.2.4 Submit Form NRC-314. NRC-314, "Certification of Disposition of Materials" is sent to each NRC materials licensee 90 days before the expiration date of a license. This form provides information as to the disposal of nuclear materials. It has been recently revised to provide notification for

termination of license. NRC Form-314 has been approved by OMB under approval number 3150-0028.

3.2.5 Submit a Radiation Survey Report. See discussion under Section 3.1.2.4. This reporting requirement has been approved by OMB.

3.2.6 Units of Radiation. Units for reporting radiation are specified to ensure consistency in radiation survey reports. The units specified are consistant with NRC regulations and practices.

3.2.7 Specify Instruments Used for Radiation Surveys. The staff needs to know the type of instrument used in radiation surveys so that it can determine if the use of that instrument is appropriate. The design, sensitivity, and range are important in determining if any instrument is appropriately used. In addition, the operability (e.g., calibration, field testing, maintenance) of the instrument is also important. The final rule is revised to include certification of calibration and testing of the instrument(s).

3.2.8 Submit a Plan for Decontamination. If significant residual radioactive contamination is detected, the licensee will have to submit a plan for decontamination. A decontamination plan is evolved from the facility design and from procedures and schedules established by the licensee when the licensee evaluates the tasks necessary to accomplish decontamination. It is necessary for the licensee to develop plans because the licensee must communicate and coordinate decontamination tasks. Submittal of a decontamination plan to NRC is required so that the staff can evaluate safety aspects of the plan and to provide the basis for inspections and making a determination that decontamination is accomplished in a safe manner. This reporting requirement has been approved by OMB.

3.3 Impact on Licensees

A major problem in developing the proposed rule was to adjust the requirements to treat all licensees fairly and still provide reasonable assurances that there is no unreasonable risk to public health and safety. A graded approach was selected for procedures related to terminating a license. At a

minimum, licensees must (1) notify the Commission when the licensee decides to permanently discontinue activities under the license, (2) terminate use of nuclear materials, (3) dispose of nuclear materials, (4) submit a completed form NRC-314, and (5) certify that no residual radioactive contamination attributable to activities conducted under the license is detected. These are the minimum requirements believed necessary to establish a record demonstrating protection of public health and safety.

Where significant residual radioactive contamination is present, the licensee must also submit a plan for decontamination. The licensee must decontaminate the nuclear facility before the license is terminated. See discussion under 3.2.8.

3.3.1 Alternative. Certain licensees could be exempted from the rule. A large number of licensees conduct activities that have small potential impact on public health and safety. Exempting these licensees could reduce the economic burden. This alternative was not selected for two reasons. First, there would be no record to demonstrate that public health and safety is protected. This could be very important where safety questions are raised after a nuclear facility is released for unrestricted use. Second, a primary purpose of the rule could be circumvented. A primary purpose of the rule is to clarify that licensees are responsible for safe control of nuclear materials, beyond the license expiration if necessary.

3.4 Procedural Approach

The value/impact analysis for the proposed rule concluded that a proposed rule should be published in the Federal Register with a 60-day period allowed for public comment. Copies of the comments received may be examined at the Commissions Public Document Room at 1717 H Street NW, Washington, D.C. Responses to the comments are contained under SUPPLEMENTARY INFORMATION in the preamble to the final rule, which is published in the Federal Register. There is no apparent reason to change the conclusion that a final rule, subject to codification, should be published in the Federal Register.

4. CONSEQUENCES

4.1 Benefits and Costs

4.1.1 Benefits

4.1.1.1 NRC. The final rule will clarify licensees' authority and responsibility for nuclear materials regarding termination of licenses. The final rule also sets forth procedures licensees must follow at the time of license termination. This will reduce uncertainties in licensing procedures, reduce communications necessary to obtain necessary information, and allow for orderly termination of licenses.

4.1.1.2 Other Government Agencies. The rule will not affect other Federal Agencies; unless they are NRC licensees. For agencies licensed by NRC the benefits are similar to those discussed in Section 4.1.1.3 below.

4.1.1.3 Industry. The proposed action would require licensees to submit a report describing the disposal of nuclear materials, i.e., Form NRC-314. Data collection for form NRC-314 would be similar to routine operations and would involve personnel skills readily available to the licensee. It is estimated that less than one-half person-day of effort will be required to prepared this submittal. Some licenses will be required to submit a final radiation survey report. However, many licensees will not, particularly licensees with sealed sources and byproduct licensees with small license possession limits and short half-life materials. Final radiation surveys would be similar to routine surveys that are conducted during operations. The extent of radiation surveys vary widely depending on the individual plant and site. The difficulty of conducting a radiation survey will depend, to a large degree, on the type(s) of radionuclides involved. It is estimated that less than one-half person-day will be required for most radiation surveys. Licensees must submit certification that residual radioactive contamination, which is attributable to activities conducted under the license, is not detectable from background radiation. Where significant residual radioactive contamination is detected, the licensee must submit a plan for decontamination, if required.

In cases where detectable contamination is present but is suitable for release a decontamination plan is not be necessary. The complexity of decontamination plans may vary, depending on the type of nuclear facility involved, from a simple statement to a report that involves safety analyses. It is estimated that about 1 to 4 person-days of effort may be required in preparation of these submittals. Most data collection and evaluations can be done by personnel available to the licensee. Additional expenses could be incurred if special radiological analyses or special evaluations are necessary. The major benefit is that regulations that specify procedures for termination of licenses will be set forth. For most licensees the procedure would be simply a radiation survey and certification that there is no significant residual radioactive contamination.

As regards a licensee's responsibility for nuclear materials under a license extension, the rule primarily states a legal relationship that exists between the Commission and the licensee. It is essentially part of the liensee's responsibility under the license. It does not alter what is currently being done and does not add to or detract from the cost/benefit analysis.

4.1.1.4 Public. The procedures set forth in this rule will establish a permanent record demonstrating that public health and safety is protected.

4.1.2 Costs

4.1.2.1 NRC. The rule will codify NRC requirements for terminating licenses issued under 10 CFR Parts 30, 40, and 70. Some of these requirements are specified in the current regulations, but others are implemented on an individual-case-basis. Since no substantial requirements are added, no additional NRC staff resources are anticipated as a result of this action.

4.1.2.2 Other Government Agencies. This action will not affect other Federal agencies, unless they are NRC licensees. For Federal agencies licensed by NRC costs are similar to those analyses in Section 4.1.2.3 below.

4.1.2.3 Industry. The NRC believes that over 90% of the licensees affected; i.e., about 180 licensees per year, will be able to comply with the requirements by following the simple procedure. These licensees will (1) notify the Commission when the licensee decides to permanently discontinue activities conducted under the license, (2) terminate use of nuclear materials, (3) dispose of nuclear materials, (4) submit a completed Form NRC-314, and (5) certify that no residual radioactive contamination attributable to activities conducted under the license is detected. Preparation and submittal of the Form NRC-314 is estimated to require about an hour and a certification letter to require about the same. The total impact on a licensee under the simple procedure is estimated to be less than one-half person-day and to cost about $80. NRC Form-314, as approved by the Office of Management and Budget, has been revised to contain provisions for certification, which will reduce this cost. Some licensees will also be required to submit a radiation survey report and possibly a decontamination plan. It is estimated that the impacts from submitting radiation survey reports will range from about one-half person-day at a cost of about $80 for small licensees to about 2 person-days at a cost of about $320 for large licensees. It is estimated that the impacts for submitting decontamination plans will range from about one-half person-day at a cost of about $80 for small licensees to about 4 person-days at a cost of about $640 for large licensees. The total cost to Industry is estimated to average between $20,000 and $25,000 per year.

4.1.2.4 Public. These estimated costs will be considered normal costs in doing business and will be recovered in the price of the commodities involved. However, the overall economic impact on the public as a result of this action is negligable.

4.2 Impacts on Other Requirements

This rule prescribes specific procedures for terminating a license issued under 10 CFR Parts 30, 40, and 70 and clarifies licensee responsibility for residual nuclear materials. It does not address broader decommissioning issues, such as decommissioning alternatives, timing, planning, financial assurance,

and residual radioactivity levels. These issues are being considered in separate rulemaking actions.

4.3 Constraints

There are no legal, institutional, or policy constraints on this action.

5. DECISION RATIONALE

At the present time, some NRC requirements for terminating a license are specified in the regulations, but others are implemented on an individual case basis. In particular, current regulations in 10 CFR Parts 30, 40, and 70 do not specifically address licensee responsibility for nuclear materials at the time of, or following, expiration of licenses or describe procedures for termination of licenses. In some cases licensees have failed to notify the Commission of their intent to terminate operations, allowed licenses to expire, and vacated premises before the staff had opportunity to inspect the premises for residual radioactive contamination. This situation has the potential for adverse affect on public health and safety.

An assessment of benefits and costs of the alternatives leads to the conclusion that these requirements are commensurate with the Commission's responsibility for public health and safety. No other alternatives are believed to be satisfactory, thus, this action is recommended.

6. IMPLEMENTATION

A notice on this final rule will be published in the Federal Register. The rule will become effective following a 30-day period. Since the rule does not add substantive requirements, no implementation problems are anticipated.

DRAFT CONGRESSIONAL LETTER

Dear Mr. Chairman:

Enclosed for the information of the Subcommittee on _____ is a copy of a Federal Register Notice that sets forth requirements for termination of byproduct, source, and special nuclear material licenses. This is a final rule. On October 26, 1982, the Commission published a proposed rule on the subject in the Federal Register (47 FR 47400). The notice provided a 60-day period for public comment. The Commission received 12 letters in response to the notice. Six letters were from electric power and utility companies (10 CFR Part 50 licensees), one from a nuclear fuel cycle licensee, three from consultant groups, and two from State and Federal agencies. Three comments specifically expressed support for the proposed rule and the remainder (18) suggested revisions, additions, and clarification. No comments specifically opposed the proposed rulemaking action. Copies of the comments may be examined in the Commission's Public Document Room at 1717 H Street, NW, Washington, D.C. The Federal Register Notice contains an analysis of comments received.

Existing regulations in 10 CFR Parts 30, 40, and 70 do not directly address termination of a licensee's responsibility for nuclear materials. These amendments clarify licensee responsibility for nuclear materials and set forth procedure for termination of specific licenses issued under 10 CFR Parts 30, 40, and 70. The amendments are mainly administrative in nature and do not add substantive requirements.

Sincerely,

Robert B. Minogue, Director
Office of Nuclear Regulatory Research

Enclosures: as stated

Enclosure C

DAILY STAFF NOTES

OFFICE OF NUCLEAR REGULATORY RESEARCH

Final Rule to be Signed by EDO

On _____, 1983, the Executive Director for Operations approved a final rule which will amend 10 CFR Parts 30, 40, and 70. This rule will amend these parts to require, if a licensee decides to terminate a license, that (1) licensees terminate use of and dispose of nuclear materials, (2) licensees submit a form describing the disposal of nuclear materials, (3) licensees submit a final radiation survey report, unless the licensee can demonstrate the absence of residual radioactive contamination in some other manner, (4) licensees submit a plan for decontamination, if residual radioactive contamination is present above levels suitable for unrestricted release, (5) a license continues in effect beyond the license expiration date, if necessary, with respect to possession of residual radioactive contamination, (6) in cases where significant residual radioactive contamination is present, the licensee must control contaminated areas until decontamination is complete, and (7) a specific license will be terminated only on written notice from the Commission.

This notice constitutes notice to the Commission that, in accordance with the rulemaking authority delegated to EDO, the EDO has received this final rule and proposes to forward it on , 1983 to the Office of the Secretary for publication in the Federal Register unless otherwise directed by the Commission.

Enclosure D

GUIDELINES FOR DECONTAMINATION OF FACILITIES AND EQUIPMENT PRIOR TO RELEASE FOR UNRESTRICTED USE OR TERMINATION OF LICENSES FOR BYPRODUCT, SOURCE, OR SPECIAL NUCLEAR MATERIAL

Address in item 5 updated in 1987. See updated version immediately after this enclosure (just before enclosure 3).

U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Washington, D.C. 20555

July 1982

ENCLOSURE 2

The instructions in this guide, in conjunction with Table 1, specify the radionuclides and radiation exposure rate limits which should be used in decontamination and survey of surfaces or premises and equipment prior to abandonment or release for unrestricted use. The limits in Table 1 do not apply to premises, equipment, or scrap containing induced radioactivity for which the radiological considerations pertinent to their use may be different. The release of such facilities or items from regulatory control is considered on a case-by-case basis.

1. The licensee shall make a reasonable effort to eliminate residual contamination.

2. Radioactivity on equipment or surfaces shall not be covered by paint, plating, or other covering material unless contamination levels, as determined by a survey and documented, are below the limits specified in Table 1 prior to the application of the covering. A reasonable effort must be made to minimize the contamination prior to use of any covering.

3. The radioactivity on the interior surfaces of pipes, drain lines, or ductwork shall be determined by making measurements at all traps, and other appropriate access points, provided that contamination at these locations is likely to be representative of contamination on the interior of the pipes, drain lines, or ductwork. Surfaces of premises, equipment, or scrap which are likely to be contaminated but are of such size, construction, or location as to make the surface inaccessible for purposes of measurement shall be presumed to be contaminated in excess of the limits.

4. Upon request, the Commission may authorize a licensee to relinquish possession or control of premises, equipment, or scrap having surfaces contaminated with materials in excess of the limits specified. This may include, but would not be limited to, special circumstances such as razing of buildings, transfer of premises to another organization continuing work with radioactive materials, or conversion of facilities to a long-term storage or standby status. Such requests must:

   a. Provide detailed, specific information describing the premises, equipment or scrap, radioactive contaminants, and the nature, extent, and degree of residual surface contamination.

   b. Provide a detailed health and safety analysis which reflects that the residual amounts of materials on surface areas, together with other considerations such as prospective use of the premises, equipment or scrap, are unlikely to result in an unreasonable risk to the health and safety of the public.

5. Prior to release of premises for unrestricted use, the licensee shall make a comprehensive radiation survey which establishes that contamination is within the limits specified in Table 1. A copy of the survey report shall be filed with the Division of Fuel Cycle and Material Safety, USNRC, Washington, D.C. 20555, and also the Administrator of the NRC Regional Office having jurisdiction. The report should be filed at least 30 days prior to the planned date of abandonment. The survey report shall:

   a. Identify the premises.

   b. Show that reasonable effort has been made to eliminate residual contamination.

   c. Describe the scope of the survey and general procedures followed.

   d. State the findings of the survey in units specified in the instruction.

   Following review of the report, the NRC will consider visiting the facilities to confirm the survey.

TABLE 1

ACCEPTABLE SURFACE CONTAMINATION LEVELS

NUCLIDES[a]	AVERAGE[b c f]	MAXIMUM[b d f]	REMOVABLE[b e f]
-nat, U-235, U-238, and ssociated decay products	5,000 dpm α/100 cm^2	15,000 dpm α/100 cm^2	1,000 dpm α/100 cm^2
ransuranics, Ra-226, Ra-228, h-230, Th-228, Pa-231, c-227, I-125, I-129	100 dpm/100 cm^2	300 dpm/100 cm^2	20 dpm/100 cm^2
h-nat, Th-232, Sr-90, a-223, Ra-224, U-232, I-126, -131, I-133	1000 dpm/100 cm^2	3000 dpm/100 cm^2	200 dpm/100 cm^2
eta-gamma emitters (nuclides ith decay modes other than lpha emission or spontaneous ission) except Sr-90 and thers noted above.	5000 dpm βγ/100 cm^2	15,000 dpm βγ/100 cm^2	1000 dpm βγ/100 cm^2

[a]Where surface contamination by both alpha- and beta-gamma-emitting nuclides exists, the limits established for alpha- and beta-gamma-emitting nuclides should apply independently.

[b]As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

[c]Measurements of average contaminant should not be averaged over more than 1 square meter. For objects of less surface area, the average should be derived for each such object.

[d]The maximum contamination level applies to an area of not more than 100 cm^2.

[e]The amount of removable radioactive material per 100 cm^2 of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be reduced proportionally and the entire surface should be wiped.

[f]The average and maximum radiation levels associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mrad/hr at 1 cm and 1.0 mrad/hr at 1 cm, respectively, measured through not more than 7 milligrams per square centimeter of total absorber.

Acceptable Soil Contamination Levels

	Kind of Material	Soil Concentration Level for unrestricted area
i)	Natural Uranium (U-238 + U-234) with daughters present and in equilibrium	10 (pCi/gm of soil)
ii)	Depleted Uranium or Natural Uranium that has been separated from its daughters Soluble or Insoluble	35 (pCi/gm of soil)
iii)	Natural Thorium (Th-232 + Th-228) with daughters present and in equilibrium	10 (pCi/gm of soil)
iv)	Enriched Uranium Soluble or Insoluble	30 (pCi/gm of soil)
v)	Plutonium (Y) or (W) compounds	25 (pCi/gm of soil)
vi)	Am-241 (W) compounds	30 (pCi/gm of soil)
vii)	All Byproduct Material	Soil concentrations shall be determined on a case by case basis
viii)	External Radiation	10 microroentgens/hr above background measured at one meter from the ground surface

ENCLOSURE 3

GUIDELINES FOR DECONTAMINATION OF FACILITIES AND EQUIPMENT PRIOR TO RELEASE FOR UNRESTRICTED USE OR TERMINATION OF LICENSES FOR BYPRODUCT, SOURCE, OR SPECIAL NUCLEAR MATERIAL

U.S. Nuclear Regulatory Commission
Division of Industrial and
Medical Nuclear Safety
Washington, DC 20555

August 1987

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4. Upon request, the Commission may authorize a licensee to relinquish possession or control of premises, equipment, or scrap having surfaces contaminated with materials in excess of the limits specified. This may include, but would not be limited to, special circumstances such as razing of buildings, transfer of premises to another organization continuing work with radioactive materials, or conversion of facilities to a long-term storage or standby status. Such requests must:

   a. Provide detailed, specific information describing the premises, equipment or scrap, radioactive contaminants, and the nature, extent, and degree of residual surface contamination.

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