
NMSS Handbook for Decommissioning Fuel Cycle and Materials Licensees

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Abbreviations

AEA	Atomic Energy Act
APA	Administrative Procedures Act
BTP	Branch Technical Position
DFP	Decommissioning Funding Plan
DP	Decommissioning Plan
DRP	Decommissioning Records Plan
DWM	Division of Waste Management
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ER	Environmental Report
FA	Financial Assurance
FONSI	Finding of No Significant Impact
FSS	Final Status Survey
FSSP	Final Status Survey Plan
FSSR	Final Status Survey Report
IMC	Inspection Manual Chapter
LDPR	Local Public Document Room
LR/PM	License Reviewer/Project Manager
MC	Manual Chapter
NEPA	National Environmental Policy Act
NMSS	Office of Nuclear Material Safety and Safeguards
NOI	Notice of Intent
NORM	Naturally Occurring Radioactive Material
NRC	U.S. Nuclear Regulatory Commission
OSHA	U.S. Occupational Safety and Health Administration
PDR	Public Document Room
RFTA	Request for Technical Assistance
RMG	Records Management Guideline
ROD	Record of Decision
SDMP	Site Decommissioning Management Plan
SER	Safety Evaluation Report
SCP	Site Characterization Plan
SCR	Site Characterization Report
SPAF	Survey Plan Approval Form

Introduction

On June 27, 1988, the U.S. Nuclear Regulatory Commission amended its regulations in 10 CFR Parts 30, 40, 50, 70, and 72 to set forth the technical and financial criteria for decommissioning licensed nuclear facilities (53 *FR* 24018). These regulations were further amended on July 26, 1993, to establish additional recordkeeping requirements for decommissioning (58 *FR* 39628); on July 15, 1994, to establish timeframes and schedules for the decommissioning of licensed nuclear facilities (59 *FR* 36026); and on July 26, 1995, to clarify that financial assurance requirements must be in place during operations and updated when licensed operations cease. NRC promulgated these amendments to ensure that the decommissioning of all licensed nuclear facilities is performed in a safe and timely manner, and that adequate funds are available to ensure that the decommissioning of licensed facilities can be accomplished.

Reviews of the Site Decommissioning Management Plan (SDMP) program by the U.S. General Accounting Office and the NRC Office of the Inspector General in 1994 and 1995, as well as continuing NRC management reviews, found that, while the NRC staff was overseeing the decommissioning program at nuclear facilities in a manner that was protective of public health and safety, progress in decommissioning many sites was slow. As a result of the conclusions drawn from these reviews and recommendations made by the reviewers, NRC determined that formal written procedures should be developed to facilitate the timely decommissioning of licensed nuclear facilities in a manner that was consistent throughout the NRC, as well as in accordance with all applicable regulatory requirements.

This handbook was developed to aid NRC staff in achieving this goal. It is intended to be used as a reference document to, and in conjunction with, NRC Inspection Manual Chapter (IMC) 2605, "Decommissioning Inspection Program for Fuel Cycle and Materials Licensees." The policies and procedures discussed in this handbook¹ should be used by NRC staff overseeing the decommissioning program at licensed fuel cycle and materials sites; formerly licensed sites for which the licenses were terminated; sites involving source, special nuclear, or byproduct material subject to NRC regulation for which a license was never issued; and sites in the NRC's SDMP program.

¹Inspection Manual Chapters 1300, "Incident Response Actions - Responsibility and Authority," and 1301, "Response to Radioactive Material Incidents that do not Require Activation of the NRC Incident Response Team," discuss the actions to be taken by NRC staff in responding to incidents involving radioactive material at licensed and unlicensed facilities, such as sanitary landfills, scrap yards and steel smelters, and private residences. Imminent threats to health and safety should be addressed in accordance with IMC 1301. Once the imminent threat is addressed, and, if it is determined that NRC will assume lead agency responsibility for decommissioning these sites, NRC staff overseeing the decommissioning program at these sites should also use the procedures applicable to each decommissioning type discussed in MC-2605 and in this handbook.

NRC staff overseeing the decommissioning program at nuclear reactor facilities subject to regulation under 10 CFR Part 50 are not required to use the procedures discussed in this handbook. In addition, NRC staff implementing the decommissioning program at uranium recovery facilities shall use the guidance in IMC 2801, "11e.(2) Byproduct Material Disposal Site and Facility Inspection Program."

1 Responsibilities and Regulations

The responsibility for management of decommissioning projects typically resides with the NRC regional office in which the facility is located, or the Office of Nuclear Material Safety and Safeguards (NMSS), as appropriate. The lead office has the responsibility for coordinating the management of the decommissioning project within NRC. In general, the regional office will assume lead responsibility for most licensed sites undergoing decommissioning. NMSS will provide overall program and policy direction for the regional offices for decommissioning facilities and will typically manage decommissioning projects involving fuel cycle facilities or sites that pose significant legal, technical, or policy issues. NMSS will also provide oversight guidance and site-specific support to the regions for all decommissioning facilities to ensure that licensees are conducting the decommissioning in a consistent manner. NMSS may assume oversight responsibility for sites listed in the SDMP or others, after consultation with the regional office. NMSS Policy and Procedures Letter 1-41 (see Appendix A) establishes the responsibilities and procedures for implementing the NMSS decommissioning program.

All NRC staff responsible for reviewing documents submitted to NRC to demonstrate compliance with NRC's decommissioning requirements, for issuing license amendments authorizing decommissioning, or for terminating licenses shall be qualified in accordance with IMC 1246 or be under the supervision of a qualified individual or a Branch Chief or higher.

The principal regulations and guidance for decommissioning nuclear facilities under 10 CFR Parts 30, 40, 70, and 72 are summarized below. A complete list of decommissioning regulations, guidance, NRC policy statements is included in Appendix B.

- 10 CFR 30.4, 30.32, 30.35, and 30.36
- 10 CFR 40.4, 40.31, 40.36, and 40.42
- 10 CFR 70.4, 70.22, 70.25, and 70.38
- 10 CFR 72.3, 72.14, 72.18, 72.38, and 72.54
- 40 CFR Part 141, "Interim National Primary Drinking Water Regulations"
- Policy and Guidance Directive FC 83-23, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Byproduct, Source and Special Nuclear Material Licenses," November 1983

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- Policy and Guidance Directive FC 90-2, Rev 1, "Standard Review Plan for Evaluating Compliance with Decommissioning Requirements for Source, Byproduct, and Special Nuclear Material License Applications," April 1991
 - Policy and Guidance Directive PG-8-08, "Scenarios for Assessing Potential Doses Associated with Residual Radioactivity," May 1994
 - Policy and Guidance Directive FC 91-2, "Standard Review Plan: Evaluating Decommissioning Plans For Licensees Under 10 CFR Parts 30, 40, and 70"
 - Record Management Guideline (RMG) 93-03, "Final Criteria for Determining that Records Should be Retained Permanently Because of Significant Historical Value"
 - NMSS Policy and Procedures Letter 1-46, "Procedures for Preparing *Federal Register* Notices for Site Decommissioning Management Plan Licensing Actions," April 1994
 - NMSS Policy and Procedures Letter 1-23, "Open Meetings," November 1994
 - NMSS Policy and Procedures Letter 1-50, Rev. 1, "Environmental Justice in NEPA Documents," April 1995
 - NMSS Policy and Procedures Letter 1-48, "Procedures for Preparing Environmental Assessments," May 1995
 - Inspection Manual Chapter 2602, "Decommissioning Inspection Program for Fuel Cycle Facilities and Materials Licensees"
 - Inspection Procedure 83890, "Closeout Inspection and Survey"
 - Inspection Procedure 88104, "Inspection Procedures for Fuel Cycle Facilities Undergoing Decommissioning"
 - Inspection Procedure 87104, "Inspection Procedures for Materials Licensees Undergoing Decommissioning"
 - NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination," Draft for Comment, June 1992
 - NUREG/CR-6232, "Assessing the Environmental Availability of Uranium in Soils and Sediments"

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- NUREG-1337, Rev. 1, "Standard Review Plan for the Review of Financial Assurance Mechanisms for Decommissioning Under 10 CFR Parts 30, 40, 70 and 72," August 1989
 - Regulatory Guide 1.86, "Termination of Operating Licenses for Nuclear Reactors"
 - Regulatory Guide 3.65, "Standard Format and Content of Decommissioning Plans for Licensees Under 10 CFR Parts 30, 40, and 70"
 - Regulatory Guide 3.66, "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72"
 - Branch Technical Position, "Disposal or Onsite Storage of Thorium and Uranium Wastes from Past Operations," October 1989
 - SECY-92-106, "Action Plan to Ensure Timely Remediation of Sites Listed in the Site Decommissioning Management Plan"
 - SECY-94-145, "Increase of Tritium and Iron-55 Unrestricted Use Limits for Surface Contamination at Shoreham and Fort St. Vrain"
 - SECY 90-316, "Decommissioning Records Plan, Records Management Guideline (RMG) 92-01, Plan for Decommissioning Records"

2 Definitions

ALARA. (acronym for As Low as is Reasonably Achievable) Making every reasonable effort to maintain exposures to radiation as far below NRC's dose limits as is practical taking into account the state of technology, the economics of improvements in relation to the state of technology, the economics of improvements in relation to benefits to the public health and safety and other societal and socioeconomic considerations, and in relation to the utilization of licensed material in the public interest.

Categorical Exclusion. A category of actions that do not individually or cumulatively have a significant impact on the human environment and that the NRC has found to have no such effect in accordance with the procedures set out in 10 CFR 51.22.

Closeout Inspection. An inspection performed by NRC to determine if a licensee has adequately decommissioned its facility. Typically, a closeout inspection is performed after the licensee has demonstrated that its facility is suitable for release in accordance with NRC requirements.

Confirmatory Survey. A survey conducted by NRC (or an NRC contractor) to verify the results of the licensee's closeout survey. Typically confirmatory surveys consist of measurements at a small percentage of locations previously surveyed by the licensee to determine whether the licensee's results are valid and reproducible.

Decommission. To remove a facility safely from service and reduce residual radioactivity to a level that permits release of the property and termination of the license.

Decommissioning Plan. (DP) A detailed description of the activities the licensee, or responsible party, intends to use to assess the radiological status of its facility, to remove radioactivity attributable to licensed operations at its facility to levels that permit release of the site in accordance with NRC's regulations and termination of the license, and to demonstrate that the facility meets NRC's requirements for release. A DP typically consists of several interrelated components including (1) site characterization information; (2) a remediation plan that has several components including a description of remediation tasks, a health and safety plan, and a quality assurance plan; (3) site-specific cost estimates for the decommissioning; and (4) a final status survey plan.

Environmental Assessment. (EA) A concise public document that serves to

1. Briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI).
2. Aid the NRC's compliance with the National Environmental Policy Act (NEPA) when no EIS is necessary.
3. Facilitate preparation of an EIS when one is necessary.

Environmental Impact Statement. (EIS) A detailed, written statement, developed to support the evaluation of major Federal actions significantly affecting the quality of the human environment, describing, among other things, the environmental impacts, any adverse environmental effects, and the alternatives to the proposed action.

Environmental Report. (ER) A report developed by a licensee that is submitted to support the licensee's amendment request. The ER is used by the NRC staff to prepare EAs and EISs. The requirements for ERs are specified in 10 CFR 51.45–51.69.

Final Status Survey. (FSS) A survey conducted by a licensee to demonstrate the radiological status of its facility. Typically, the FSS consists of evaluations for both fixed and removable residual radioactive material and determinations of radiation levels in formerly used areas. Also referred to as a Closeout Survey or Termination Survey.

Final Status Survey Report. (FSSR) The results of the survey conducted by a licensee to demonstrate the radiological status of its facility. The FSSR is submitted to NRC for review and approval.

Finding of No Significant Impact. (FONSI) A concise public document that briefly states the reasons why an action will not have a significant impact on the human environment.

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

Safety Evaluation Report. (SER) The NRC staff's evaluation of a licensee's proposed action to determine if that action can be accomplished safely.

Site Decommissioning Management Plan. (SDMP) The program established by the NRC in March 1990 to help ensure the timely cleanup of sites where limited progress has been made in completing the remediation of the site and the termination of the facility license. SDMP sites typically have buildings, former waste disposal areas, large volumes of tailings, groundwater contamination, and soil contaminated with low levels of uranium or thorium or other radionuclides.

Suitable for Unrestricted Use. Levels of residual radioactivity, distinguishable from background, sufficiently low so as to allow any public use of a site without restrictions.

3 Timing of Decommissioning²

NRC regulations at 10 CFR 30.36(d)(1-4), 40.42(d)(1-4), 70.38(d)(1-4), and 72.54(d)(1-3) describe the conditions under which a licensed facility would be required to begin decommissioning operations. The effective date of the final rule on timeliness in decommissioning was August 15, 1994 (59 FR 36026, July 15, 1994). Licensees with unused facilities on August 15, 1994, are required to submit the required notifications (see below) to NRC by October 15, 1996. Within 12 months of submitting the notification, these licensees are required to submit a DP (if required) and begin decommissioning their facilities upon approval of the plan by NRC. Unless otherwise approved by NRC, licensees are required to complete decommissioning their facilities within 24 months of initiating decommissioning operations. Licensees that have made decommissioning notifications prior to August 15, 1994, do not need to provide another notification. However, these licensees were required to submit a DP, or request an alternative decommissioning schedule, by August 15, 1995.

Licensed facilities revert from "Active" status to "Decommissioning" status when

1. The license expires or is revoked by the Commission.
2. The licensee decides to permanently cease operations with licensed material at the entire site or in any separate building or outdoor area that contains residual radioactivity, such that the area is unsuitable for release in accordance with NRC requirements.³
3. 24 months have elapsed since principal activities have been conducted under the license, or
4. No principal activities have been conducted in a separate building, or outdoor area, for a period of 24 months and residual radioactivity is present that would preclude its release in accordance with NRC requirements.

Within 60 days of the occurrence of any of the above, the licensee is required to inform the NRC of the occurrence in writing. In addition, the licensee is required to (1) begin decommissioning the facility or (2) within 12 months, submit a DP to NRC and begin

² See Section 6 for a discussion of the timing of decommissioning at SDMP sites

³ Outdoor areas where radioactive materials were used that currently meet NRC's criteria for unrestricted use are not subject to the timeliness rule's notification requirements.

decommissioning in accordance with the plan when it is approved by NRC. NRC staff has also determined that the final rule on decommissioning materials facilities applies to previous burials, if the former disposal site met the definition of an inactive outdoor area. However, since the rule requires that licensees provide a decommissioning plan for the disposals, or propose an alternative decommissioning schedule within a specified timeframe, NRC will be able to identify sites containing on-site disposals. The application of the timeliness rule to former on-site disposals is summarized in Information Notice 96-47, "Recordkeeping, Decommissioning Notification for Disposals of Radioactive Waste by Land Burial Authorized under Former 10 CFR 20.304, 20.302 and 20.2002," August 16, 1996.

Pursuant to 10 CFR 30.36(e), 40.42(e), 70.38(e), and 72.54(e)(1), the Commission may grant a request to extend the time periods outlined above, if the Commission determines that the extension is not detrimental to the public health and safety and is otherwise in the public interest. In order for a licensee's request for an extension to be considered, the licensee must submit the request to the Commission not later than 30 days before notification is required (i.e., not later than 30 days after the facility reverts from "active" to "decommissioning" status). The schedule for decommissioning the site will be held in suspension until a decision on the licensee's request is made by the Commission.

A request for an extension or alternative schedule for decommissioning may be approved, if warranted, after considering the following:

1. Whether it is technically feasible to complete the decommissioning within the 24-month period,
2. Whether sufficient waste disposal capacity is available to allow the completion of the decommissioning within the 24-month period,
3. Whether a significant volume reduction in waste requiring disposal will be achieved by allowing short-lived radionuclides to decay,
4. Whether a significant reduction in radiation exposure to workers can be achieved by allowing short-lived radionuclides to decay, and
5. Other site-specific factors such as the regulatory requirements of other agencies, lawsuits, groundwater-water treatment activities, monitored natural groundwater restoration, actions that could result in more environmental harm than deferred cleanup, and other factors beyond the control of the licensee.

In addition, approval of the request must also be in the "public interest." NRC has determined that it is normally in the public's interest to have radiologically contaminated areas remediated soon after permanent cessation of operations. NRC has stated that "When decommissioning is delayed for long periods following cessation of operations, there is a risk that safety practices may become lax as key personnel relocate and management interest wanes. In addition, bankruptcy, corporate takeover, or other unforeseen changes in company's financial status may complicate and perhaps further delay decommissioning." (59 *Federal Register* 36027) In addition, waste disposal costs have, in the past, increased at rates significantly exceeding the rate of inflation and, as such, delaying remediation will result in higher costs to the public if the government eventually assumes responsibility for the decommissioning. Therefore, in evaluating a licensee's request for an extension, NRC staff should consider whether the licensee has adequately addressed how postponing decommissioning would be in the public's interest.

4 Radiological Criteria for Decommissioning

Generally, licensees decommission their facilities with the intent of terminating the license and using the facility for activities that do not involve licensed material. The ultimate goal of decommissioning is to reduce residual radioactivity to levels that are indistinguishable from background levels. These facilities must be decommissioned such that they do not contain residual radioactive material levels in excess of NRC's criteria for unrestricted use. NRC's interim radiological criteria⁴ for unrestricted use are identified in the "Action Plan to Ensure Timely Remediation of Sites Listed in the Site Decommissioning Management Plan," 57 *FR* 13389, April 16, 1992. These criteria include the following:

- Policy and Guidance Directive FC 83-23, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Byproduct, Source and Special Nuclear Material Licenses," November 14, 1983
- Regulatory Guide 1.86, "Termination of Operating Licenses for Nuclear Reactors," June 1974
- Options 1 and 2 of the Branch Technical Position, "Disposal or Onsite Storage of Thorium and Uranium Wastes from Past Operations," 46 *FR* 52601, October 23, 1981
- 40 CFR Part 141, "National Primary Drinking Water Regulations"
- EPA's "Radiation Dose Guidelines for Protection Against Transuranium Elements Present in the Environment as a Result of Unplanned Contamination"

These criteria will be applied on a site-specific basis with emphasis on remediating residual radioactive material to levels that are as low as reasonably achievable (ALARA). In addition, these criteria will be considered in establishing site-specific ALARA levels for SDMP sites in license amendments and orders. Note that site-specific ALARA levels may be in excess of NRC's unrestricted release criteria, if an analysis of the remediation costs vs. the reduction in potential doses to workers and members of the public indicates that these levels are ALARA.

⁴ NRC is considering amending its regulations to allow licensees to establish radiological criteria for decommissioning. Among the amendments, NRC would consider decommissioning actions that would result in restricted use of the facility following decommissioning. NRC proposed these amendments on August 22, 1994 (59 *FR* 43200). Until this rule is finalized, NRC staff should use the interim criteria discussed in this section

Appendix C contains a summary and discussion of NRC's current interim radiological cleanup criteria. It also contains SECY 94-145 that discusses the procedures followed by the NRC staff to increase ^3H and ^{55}Fe surface contamination limits at the Ft. St. Vrain and Shoreham nuclear power facilities. SECY 94-145 should be used as the technical basis for increasing the surface contamination limits for these radionuclides at other facilities. Appendix C also contains Policy and Guidance Directive LD-8-08, "Scenarios for Assessing Potential Doses Associated with Residual Radioactivity," that describes an acceptable methodology for the staff to develop site-specific residual radionuclide concentrations for soil where the NRC has not already developed interim criteria.

NRC regulations in 10 CFR 20.2002 allow licensees to apply for approval to dispose of their waste onsite, provided the disposal is specifically approved by NRC. Before the effective date of 10 CFR 20.2002, licensees could bury waste at their facility under 10 CFR 20.302. Before 1981, licensees could bury waste at their facility under 10 CFR 20.304. In the proposed rule on decommissioning criteria, the Commission stated that if this material were considered part of the total site inventory, many licensees would be required to remove it before decommissioning. The Commission further stated that while this position may be controversial, public and environmental risk is the overriding factor and, as such, previous disposal of radioactive material must be included to determine if a licensee meets the radiological criteria for license termination.

However, the Commission also stated that the balancing of risks, costs, and benefits may be substantially different for exhuming buried material than they would be for decontamination of surface soils and structures. Therefore, it is expected that before any decision is made to leave radioactive material previously disposed of at a site in place, the licensee should determine whether the radioactive material concentrations exceed the threshold⁵ requiring additional investigation and, if so, perform a site-specific analysis of the overall risks, costs, and benefits of this action.

⁵NRC staff is developing a screening methodology for determining when the potential for harm from previous burials of licensed material requires licensees to perform additional site-specific analysis of the overall risks from the exhumation of the buried material. When completed, this methodology will be included in Appendix D.

5 Decommissioning Records Management

SECY-90-316, "Decommissioning Records Plan (DRP) and Records Management Guideline (RMG) 92-01, Plan for Decommissioning Records," describes the records management and retention requirements for the decommissioning of licensed nuclear facilities. In general, the RMG requires that all records associated with decommissioning nuclear facilities be maintained for 20 years.

Records that are determined to have significant historical value will be permanently retained. RMG 93-03, "Final Criteria for Determining that Records Should be Retained Permanently Because of Significant Historical Value," describes the criteria for determining which records have significant historical value and should be permanently retained. Appendix D contains copies of RMG 92-01 and 93-03.

The Office of Information Resources Management has been assigned lead responsibility for implementing the requirements of the Decommissioning Records Plan (DRP). The license reviewer/project manager (LR/PM) is responsible for depositing the appropriate decommissioning records in the case files as outlined in the RMG. The LR/PM shall maintain and manage decommissioning records as directed by the appropriate regional or Headquarters managers. RMG 92-01 summarizes the records that should be maintained by the LR/PM.

The decommissioning process can generate a considerable amount of records, particularly in conducting a final status survey. The LR/PM should ensure that, at a minimum, the following records are retained.

- A copy of the FSS plan and DP, if required
- Summary measurements for each survey unit (survey unit averages)
- Elevated area ("hot-spot") evaluations
- Survey instrument description and calibration records
- Records of data reductions and comparisons with guidelines
- The results of any investigations to determine the cause of the failure to meet the decommissioning criteria
- Results of site inspections, meeting reports, and correspondence

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- Results of closeout surveys and inspections, including split sample collection and evaluation
 - A completed Materials License Termination/Retirement Form

In addition, on May 16, 1996, NRC amended its regulations pertaining to the disposition of certain records when a licensee terminates licensed activities or licensed activities are transferred to another licensee. The rule requires that licensees, authorized to possess source and byproduct material with half-lives greater than 120 days in unsealed form, transfer records pertaining to decommissioning to the new licensee if licensed activities will continue at the same site. It also requires that the new licensee forward these same records to NRC before the license is terminated. These records include waste disposals permitted under Sections 20.2002 (including those made under 20.304 prior to 1981), 20.2003, 20.2004, and 20.2005, and results of measurements and calculations used to evaluate offsite releases. The rule also requires that NRC not terminate the license until these records are received by NRC. The LR/PM should ensure that these records are forwarded to NRC prior to termination of the license. A copy of the *Federal Register* amending NRC decommissioning records management regulations is included in Appendix D.

6 The Site Decommissioning Management Plan

In March 1990, NRC established the Site Decommissioning Management Plan (SDMP) program to help ensure the timely cleanup of sites warranting special attention by the Commission. The SDMP program was implemented to identify and resolve the issues associated with the remediation of numerous licensed, formerly licensed, and unlicensed sites contaminated with residual radioactive material in excess of NRC's criteria.

These sites were deemed to warrant special attention by the Commission because of the limited progress made in completing the remediation of the site and the termination of the facility license. SDMP sites present unique decommissioning challenges and typically have buildings, former waste disposal areas, large volumes of tailings, groundwater contamination, and soil contaminated with low levels of uranium or thorium or other radionuclides. Sites may be added or removed from the SDMP throughout the year. The list is updated on an annual basis in the "SDMP Update" in a Commission paper. In addition, sites that are listed in the 1995 SDMP Update (60 *FR* 66996) are precluded from consideration under the one-time, automatic 5-year license extension.

Sites are considered for inclusion in the SDMP program if they meet one or more of the following criteria.

1. The responsible organization may not be financially viable (e.g., inability to pay for or unwillingness to perform decommissioning).
2. There are large amounts of contaminated soil or unused settling ponds or burial grounds that may be difficult to decommission.
3. There is long-term presence of contaminated, unused buildings.
4. The license was previously terminated, but residual contamination exceeds unrestricted use limits.
5. There is contamination or potential contamination of the groundwater from onsite wastes.

The Commission established these general criteria for including sites in the SDMP program as guidelines to the staff. In some cases (e.g., previously terminated licenses), the decommissioning actions are simple and can be completed within a short period of time. If the responsible party is willing to perform decommissioning and there are no unique decommissioning issues that require resolution, the site will not be listed in the SDMP,

even though it meets the SDMP listing criteria. The objective is to place only those sites with difficult decommissioning issues on the SDMP to ensure that they receive adequate NRC staff and management attention and not to list the sites that require less intensive efforts. Regional offices should forward information on sites meeting the inclusion criteria to the NMSS Division of Waste Management (DWM). The decision to include a site in the SDMP program will be made by DWM, after consultation with the appropriate regional office. NUREG/BR-0199, "Public Responsiveness Assurance Plan," discusses the improvements that the NRC plans to use to enhance opportunities for public involvement and information. As discussed in the Plan, in addition to the procedures discussed in Sections 7-10 below, when a site is placed on the SDMP, the LR/PM shall inform the NRC State Liaison Officer, the State agency responsible for radiological controls, and the county, city, town, or affected Tribal government where the site is located. This is in addition to notifying the State agency(s) responsible for environmental protection and the regional EPA office.

Timing of Decommissioning at SDMP Sites

In April 1992, the NRC developed and published the SDMP Action Plan that described the approach that NRC will use to accelerate the cleanup of sites in the SDMP program (57 FR 13389). For licensed sites in the SDMP, the decommissioning timeliness requirements (Section 3) supersede the schedule expectations described in the SDMP Action Plan. For unlicensed sites, the expectations described in the Action Plan continue to apply. As summarized in the SDMP Action Plan, the NRC will address the timing of SDMP site cleanups on a case-by-case basis, with the expectation that the cleanup will be completed in about 4 years after operations that caused the contamination cease, or 3 years after issuance of an initial cleanup order. To achieve this objective, major decommissioning milestones at unlicensed sites shall be established with the objective of meeting the following timeframes.

- As soon as practicable but generally not later than 12 months after notification by the NRC that decommissioning is expected to commence, the licensee or responsible party shall submit site characterization information to NRC.
- As soon as practicable but generally not later than 6 months after approval of the site characterization information by NRC, the licensee or responsible party shall submit a DP to NRC for review and approval. The DP shall contain a schedule for completing the decommissioning of the facility.
- As soon as practicable but generally not later than 18 months after approval of the site DP, the licensee or responsible party shall complete the decommissioning of the facility.

In implementing this approach, NRC will establish specific and enforceable milestones for each phase of decommissioning through license amendments or orders. These schedules should be developed in conjunction with the licensee or responsible party and provide flexibility for the licensee or responsible party to demonstrate good cause for delaying cleanup, based on technical and risk-reduction considerations or for reasons beyond the licensee's or responsible party's control.

Sites are removed from the SDMP when the licensee completes the decommissioning of the site in accordance with an approved DP and adequately demonstrates to NRC that the site meets the cleanup levels described in the plan. Prior to removing a site from the SDMP, the LR/PM shall coordinate the action with DWM, prepare a Commission paper outlining the site history and decommissioning, and inform the State and regional EPA office of the intent to remove the site from the SDMP. If NRC terminates the license after removal from the SDMP, the licensee will be relieved from any further obligation to NRC, as long as the licensee decommissioned the site in full accordance with the approved decommissioning plan. The exception to this would be in the event additional contamination or non-compliance with the plan is found, indicating a significant threat to the public health and safety.

7 Decommissioning Types

The decommissioning process consists of a series of integrated activities, beginning with the facility transitioning from "active" to "decommissioning" status and concluding with the termination of the license and release of the site. Depending on several factors, including the type of license, the use of radioactive material at the facility, or past management of radioactive material at the facility, the decommissioning may be relatively simple and straightforward or complex.

Generally, the staff will evaluate the decommissioning of nuclear facilities using one of four reviews (referred to as "Types") summarized below and described in the following sections.

- Type I—In general, facilities decommissioned under Type I have used licensed material in a manner that would preclude its release into the environment, would not cause the activation of adjacent materials, or would not contaminate work areas.
- Type II Review—Facilities decommissioned under Type II would have used licensed material in a manner that would not be expected to result in its release into the environment, would not activate adjacent materials, or would not be expected to result in persistent contamination of work areas. However, these licensees would not be able to demonstrate the radiological status of its facility in accordance with the criteria applicable to Type I decommissioning (see below).
- Type III and Type IV Reviews—All licensees that are required to submit a DP in accordance with NRC regulations in 10 CFR 30.36(g)(1), 40.42(g)(1), or 70.38(g)(1), as well as all Part 72 licensees, would decommission their facilities under Type III or Type IV. Facilities decommissioned under Type III or IV would have used licensed material in a manner that has resulted in its release into the environment, activated adjacent materials or resulted in persistent contamination of work areas. Type III or IV classification is based on the complexity of the decommissioning and the NRC staff actions required to comply with NEPA.

The NRC staff shall use the following criteria for assigning decommissioning types.

Type I

1. The licensee possessed and used only sealed sources, **and** the most recent leak test results demonstrate that the source(s) did not leak while in the licensee's possession, *or*

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2. The licensee possessed and used relatively short-lived radioactive material (i.e., $T_{1/2} \leq 60$ days) in an unsealed form, **and** the maximum activity authorized under the license has decayed to less than the quantity specified in 10 CFR Part 20, Appendix C.

Type II

1. The licensee possessed and used only sealed sources **but** cannot demonstrate that the sources did not leak while in its possession (i.e., leak tests are not available or indicate contamination $>0.005 \mu\text{Ci}$), *or*
2. The licensee possessed unsealed radioactive material with $T_{1/2} \leq 60$ days, **but** the maximum activity authorized under the license has not decayed to less than the quantity specified in 10 CFR Part 20, Appendix C, at the time the licensee requests license termination, *or*
3. The licensee possessed unsealed radioactive material with $T_{1/2} > 60$ days but ≤ 120 days.⁶

Type III

1. The decommissioning qualifies for a categorical exclusion under 10 CFR 51.22 (c), and
2. The licensee will decommission its facility in accordance with the NRC's criteria for unrestricted use.

Type IV

1. The decommissioning does not qualify for a categorical exclusion under 10 CFR 51.22 (c), *or*
2. The licensee intends to decommission its facility such that residual radioactive material may remain at the site in excess of the levels specified in NRC's criteria for unrestricted use.

⁶Licenses using small quantities of ^{14}C or ^3H may be decommissioned under Type II or Type III, depending on the total activity of ^{14}C or ^3H possessed under the license and the authorized use of the radioactive material. LR/PMS should contact DWM/NMSS for guidance on which decommissioning type is appropriate for their particular situation.

A comparison of the salient features of each decommissioning type are summarized in Table 1.

Table 1 Principal Features of Decommissioning Types

	TYPE I	TYPE II	TYPE III	TYPE IV
Decommissioning Qualifies for a Categorical Exclusion under 10 CFR 51.22(c)	Yes	Yes	Yes	No
Licensee Requests Release for Restricted or Unrestricted Use	Unrestricted use	Unrestricted use	Unrestricted use	Restricted or Unrestricted use
Decommissioning Plan Required	No	No	Yes	Yes
Decommissioning Plan Review Documentation	Letter to the licensee (if submitted)	Letter to the licensee (if submitted)	Checklist	Safety Evaluation Report
Radioactive Material Disposition Documentation	NRC Form 314 or equivalent	NRC Form 314 or equivalent	NRC Form 314 or equivalent	NRC Form 314 or equivalent
Method for Demonstrating Site is Suitable for Release	Survey or demonstration	Survey or demonstration	NUREG/CR-5849 type survey	NUREG/CR-5849 type survey
Confirmatory Survey	No	Depends on licensee's survey and RAM use at facility	Depends on licensee' survey and RAM use at facility	Yes
Closeout Inspection	No	Yes	Yes	Yes
Federal Register Notices used to Inform the Public of Staff Actions	No	No	Yes - to announce DP receipt and NRC's intended actions	Yes - to announce DP receipt and NRC's intended actions
Documentation Used to Support License Termination/NEPA Compliance	Letter to licensee and License Termination Form	Letter to licensee and License Termination Form	Letter to licensee and License Termination Form	EA/FONSI; EIS used to support decommissioning alternative other than unrestricted use

Upon receipt of the written notification required under 10 CFR 30.36(d), 40.42(d), 70.38(d) or 72.54(d) (see Section 3), the License Reviewer/Project Manager (LR/PM) must determine which decommissioning type best describes the actions necessary to decommission the facility in accordance with NRC's requirements. This determination is made by reviewing the current license, regulations, site conditions, operating history, past licensee performance, and the criteria listed above. Discussing the use of radioactive

material at the facility with regional inspection personnel and NRC management may also be helpful.

When the LR/PM concludes that decommissioning is most appropriate for the facility, the LR/PM shall inform his/her supervisor and obtain the appropriate level of NRC management concurrence.

The LR/PM shall ensure that the licensee's written notification is placed in the licensee's docket file and the appropriate Public Document Room(s). The LR/PM shall acknowledge, in writing, the receipt of the notification and inform the licensee of any additional information required to support the licensee's request to terminate the license. Finally, the LR/PM shall inform the licensee of the decommissioning schedule, as outlined in NRC regulations, applicable to the licensee's facility.

Appendix E contains a checklist of actions to be completed by the LR/PM upon receipt of the licensee's notification of intent to cease licensed operations, and a standard letter informing the licensee of the additional information required to support the licensee's request to terminate the license.

The decommissioning actions that are typically applicable to each decommissioning type are summarized in the following sections. Although it is anticipated that most licensees will fall under the decommissioning types as described, it should be expected that the actions may not always be appropriate for each licensee. The intent is to present the general actions to be taken by the NRC staff, recognizing that the unique nature of some facilities may require site-specific modifications to the procedures. The NRC staff shall ensure that any departure from these established procedures is reviewed and approved by NRC management before implementation.

It is important to recognize that every applicable NRC action cannot be fully addressed in procedures for four general types of decommissioning. The staff should use the decommissioning types described in this handbook as a general guide to the actions and scope of the decommissioning project, while remaining flexible with respect to the appropriate actions that they will be required to undertake. If, after consulting with their supervisor(s), the staff is unable to determine the appropriate actions to be taken for a particular decommissioning project, they should contact DWM for assistance and program guidance.

8 Type I Decommissioning

In general, Type I decommissioning involves licensees only using licensed material in a manner that would preclude release of the licensed material to the environment, would not cause the activation of adjacent materials, or would not contaminate work areas. Type I would be limited to licensees that possess and use only sealed sources and the most recent leak test demonstrates that the sealed sources did not leak while in the licensee's possession. Any significant leakage of the sealed source would warrant review of the decommissioning under Type II or Type III. In addition, the use of short-lived radioactive material (i.e., $T_{1/2} \leq 60$ days) where the maximum activity authorized under the license has decayed to less than the quantity specified in 10 CFR Part 20, Appendix C, may also be considered under Type I.

Typically, these licensees would only be required to

1. Submit the notification required under 10 CFR 30.36(d), 40.42(d), and 70.38(d),
2. Transfer the decommissioning records discussed in 10 CFR 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; or 70.25, 70.38, 70.51, as appropriate, or affirm that they are not required to retain or transfer these records,
3. Dispose of the licensed material in accordance with NRC requirements, usually by returning the material to the manufacturer,
4. Demonstrate that they meet the Type I criteria or perform a Final Status Survey and submit the results in accordance with 30.36(j), 40.42(j), or 70.38(j), and
5. Submit NRC Form 314, "Certificate of Disposition of Materials," or equivalent information to NRC.

Termination of these licenses would not require the licensee to submit a DP. Submission of a DP is necessary only when required by license condition, or the procedures and activities necessary to carry out the decommissioning have not been approved by the Commission, and these procedures could increase the potential health and safety impacts to the workers or the public. In addition, termination of the license would be categorically excluded from the requirement for an EA⁷ in accordance with 10 CFR 51.22.

⁷ Section 16 and Appendix K discuss EAs in further detail.

Licenses decommissioning under Type I would be required to demonstrate to NRC that its facility meets the current criteria for release, either by submitting the results of a Final Status Survey (FSS) or by demonstrating that it satisfied the criteria outlined above. If the licensee elects to make this demonstration by submitting the results of an FSS to NRC, the FSS need not be as extensive as one required under Type II, below, but would still be required to contain the elements described in 10 CFR 30.36(j), 40.42(j), or 70.38(j). Section 2.3.2 of NUREG/CR-5849 discusses scoping surveys that may be used as a model for the FSS under Type I decommissioning.

Upon receipt of the required notification from the licensee, the LR/PM shall

1. Confirm that the decommissioning is consistent with a Type I decommissioning,
2. Ensure that the notification is placed in the licensee's docket file and the appropriate Public Document Room(s),
3. Ensure that the licensee has submitted the decommissioning records discussed in 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; or 70.25, 70.38, 70.51, as appropriate, or has affirmed that it is not required to retain or submit these records,
4. Acknowledge, in writing, the receipt of the notification and inform the licensee of any additional information required to support the licensee's request to terminate the license, and
5. Inform the licensee of the decommissioning schedule, as outlined in NRC regulations, that is applicable to the licensee's facility.

Upon submission of NRC Form 314, the LR/PM shall verify that the licensed material has been transferred or disposed of in accordance with NRC requirements. This may be accomplished by having the licensee provide written confirmation from the recipient listed on NRC Form 314 that the material has been transferred to them or by the LR/PM contacting the recipient listed on NRC Form 314 directly. If the LR/PM contacts the recipient listed on the NRC Form 314 directly to verify the transfer of licensed material, the LR/PM shall document the action with a note to file placed in the license docket file. If the activity of the radioactive material reported on the NRC Form 314 is less than the quantities listed in 10 CFR Part 20, Appendix C, the LR/PM does not need to independently confirm receipt of the material by the recipient listed on the NRC Form 314.

After verifying the disposition of the licensed material, the LR/PM shall review the information submitted by the licensee to demonstrate that its facility is suitable for unrestricted use. If the licensee has submitted leak test results, the LR/PM shall verify that

the type and number of sources on the license and NRC Form 314 are in agreement and that all (i.e., the most recent and any previous) leak test results do not indicate that the sources leaked.

If the licensee has submitted the results of an FSS, the LR/PM shall review the licensee's final status survey, paying particular attention to anomalies such as the use of an inappropriate instrumentation meter, incomplete evaluation of radioactive material use/storage areas, and spurious survey results.

If the licensee's demonstration of the suitability of its facility for unrestricted use appears to be valid and complete, the LR/PM prepares a letter, for signature by a qualified license reviewer, Branch Chief or higher, as appropriate, informing the licensee that the license has been terminated. Appendix F contains a sample of a letter that may be used by the staff to inform the licensee that their license has been terminated. A copy of the letter shall be placed in the license docket file, the license shall be terminated, and the records retired in accordance with RMG 92-01 and 93-03. If the licensee's final status survey does not appear valid or if the leak test results are inconclusive with respect to the condition of the sealed sources, the LR/PM shall contact the licensee, either by phone followed up with written correspondence, or solely by written correspondence, to resolve the issue. This may require that the licensee resurvey its facility or provide additional information to the LR/PM.

As the final step in terminating the license, the LR/PM shall complete the "Materials License Termination/Retirement Form" contained in Appendix F. The completed form shall be included in the official docket file for the license, and a copy shall be maintained at the regional office or NRC Headquarters when the docket files are archived.

9 Type II Decommissioning

Generally, facilities decommissioned under Type II would have used licensed material in a manner that would not typically be expected to result in its release into the environment, not activate adjacent materials, or not be expected to result in persistent contamination of work areas. However, these licensees would not be able to demonstrate the radiological status in accordance with the criteria discussed under the Type I decommissioning above.

Type II decommissioning would include licensees that (1) possess and use only sealed sources but cannot demonstrate that the sources did not leak while in their possession; (2) possess unsealed radioactive material with $T_{1/2} \leq 60$ days, but the maximum activity authorized under the license has not decayed to less than the quantity specified in 10 CFR Part 20, Appendix C, at the time the licensee requests license termination; or (3) possess unsealed radioactive material with $T_{1/2} > 60$ days but ≤ 120 days. In addition, licensees, who only possess radioactive material with half-lives of less than 60 days, that decommission their facility by isolating the contaminated areas and equipment for sufficient time to allow the radioactive material to decay to levels that are indistinguishable from background levels may also decommission their facility under this decommissioning type. Licensees using small quantities of ^{14}C or ^3H may be decommissioned under Type II or Type III, depending on the total activity of ^{14}C or ^3H possessed under the license and the authorized use of the radioactive material. LR/PMs should contact DWM/NMSS for guidance on which decommissioning type is appropriate for their particular situation.

Licensees decommissioning under Type II would not be required to develop a DP. In order to determine if the facility would be required to submit a DP, the LR/PM must determine whether (1) a DP is required by license condition or (2) the procedures and activities necessary to carry out the decommissioning have not been approved by the Commission, and these procedures could increase the potential health and safety impacts to the workers or the public. NRC regulations in 10 CFR 30.36(f)(1), 40.42(f)(1), and 70.38(f)(1) describe several cases when submission of a DP by the licensee is required, such as when

- Procedures would involve techniques not applied routinely during cleanup or maintenance operations.
- Workers would be entering areas not normally occupied where surface contamination and radiation levels are significantly higher than routinely encountered during operation.

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- Procedures could result in significantly greater airborne concentrations of radioactive materials than are present during operation.
 - Procedures could result in significantly greater releases of radioactive material to the environment than those associated with operation.

Note that licensees authorized under 10 CFR Part 72 must, in all cases, submit a DP to NRC at the completion of licensed operations. If the facility is required to submit a DP, decommissioning would be accomplished under Type III or IV, described in Section 11 or 12.

In addition, unless previous inspections or other information indicate that licensed material may have (1) been introduced into the environment, (2) activated surrounding structures or equipment, or (3) contaminated work areas, an environmental report (ER)⁸ would not be needed in accordance with 10 CFR 51.60.

Although a submission of a DP is not required for decommissioning under Type II, these licensees would be required to determine the radiological status of their facility and demonstrate that their facility meets NRC's requirements for unrestricted use. This would be accomplished by remediating the site as necessary and either performing a final status survey or demonstrating the site is suitable for release by some other means. Based on the potential for contamination, the results of the licensee's FSS, if submitted, or the NRC staff's evaluation of the licensee's demonstration that the site is suitable for unrestricted use, NRC may perform a confirmatory survey at these facilities.

Typically, these licensees would

1. Submit the notification required under 30.36(d), 40.42(d), or 70.38(d).
2. Transfer the decommissioning records discussed in 10 CFR 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; or 70.25, 70.38, 70.51, as appropriate, or affirm that they are not required to retain or transfer these records.
3. Determine the extent of contamination at the facility.
4. Remove residual radioactive material to levels that would permit release of the facility.

⁸ NRC's general requirements for environmental reports (ERs) are contained in 10 CFR 51.45. This report, prepared and submitted by the licensee, contains a description of the proposed action as well as a statement of its purposes and a description of the environment affected. Section 10 and Appendix L discuss ERs in further detail.

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5. Dispose of the licensed material in accordance with NRC requirements, usually by returning sealed sources to the manufacturer or disposing of licensed material as outlined in the NRC regulations.
 6. Determine the radiological status of the facility and perform further remediation, if necessary to meet NRC's criteria.
 7. Submit an FSSR, or demonstrate that the facility, or portion of the facility, meets NRC's criteria for unrestricted use by some other means.
 8. Submit an NRC Form 314, "Certificate of Disposition of Materials," to NRC.

Upon receipt of the required notification from the licensee, the LR/PM shall

1. Determine whether the decommissioning meets the Type II criteria summarized above.
2. Determine whether a Technical Assistance Control number for the decommissioning action should be assigned and, if so, arrange for one to be assigned to the decommissioning;
3. Ensure that the notification is placed in the licensee's docket file and the appropriate Public Document Room(s).
4. Ensure that the licensee has transferred the decommissioning records discussed in 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; or 70.25, 70.38, 70.51, as appropriate, or has affirmed that they are not required to retain or transfer these records.
5. Acknowledge, in writing, the receipt of the notification and inform the licensee of any additional information required to support the licensee's request to terminate the license.
6. Inform the licensee of the decommissioning schedule, as outlined in NRC regulations, that is applicable to the licensee's facility.

The LR/PM also should contact the licensee, by telephone, to determine the licensee's estimated decommissioning schedule and confirm that the schedule conforms with NRC requirements (see Section 3). This information will be useful in scheduling any confirmatory surveys or closeout inspections that NRC may undertake as part of the decommissioning of the facility and to ensure that the licensee will conduct the

decommissioning of its facility in accordance with the schedules discussed in 10 CFR Parts 30.36, 40.42, and/or 70.38.

In performing the decommissioning of its facility, the licensee should first identify any areas in the facility that were involved in licensed material use by reviewing facility records and conducting a survey of the licensed material use area. This survey should be similar to the routine contamination surveys conducted under the licensee's radiological safety plan. The licensee should then remediate all surfaces in the areas at the facility that were involved in licensed material use or storage and dispose of all radioactive material and waste as discussed in the NRC regulations in 10 CFR Part 20, Subpart K.

If the licensee elects to demonstrate that its facility is suitable for unrestricted use by conducting an FSS, the licensee should design the survey so as to be of sufficient scope and quality to make this demonstration. In preparing for the FSS, the licensee should establish a method to identify individual measurement/sampling points on each surface in the indoor area that was involved in licensed material use. At a minimum, the licensee's termination survey should consist of

1. 100% scanning of all surfaces in the area at the facility where licensed material was used or stored using an appropriate radiation detection instrument (including scan sensitivity).
2. Evaluations for total and removable radioactive material at each area exhibiting elevated radiation levels or at a frequency of one wipe comprising 100 cm² per 300 ft.²
3. Evaluations of radiation levels at one meter above surfaces.

Particular attention should be afforded any drains, air vents or other fixtures or equipment that may have become contaminated during licensed material use. This is especially significant in situations where renovations have occurred and potentially contaminated areas may be inaccessible under current conditions.

Upon receipt of the FSSR from the licensee, the LR/PM shall

1. Perform an "acceptance" or "completeness" review of the FSSR to determine whether it contains sufficient type and quality of information to begin the in-depth technical review of the DP. Appendix G contains Policy and Guidance Directive 1-22 describing the required staff actions for initial processing of licensing actions.

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2. Inform the licensee of the results of the acceptance review. Appendix G contains examples of form letters that may be used by the staff to transmit the results of the acceptance review to the licensee.
 3. Review the FSSR to ensure that it adequately demonstrates that the facility is suitable for unrestricted use.

The information that should be submitted to the NRC to support the FSS should consist of

1. A brief description of the remediation activities undertaken by the licensee,
2. A detailed drawing of the licensed material use areas indicating the sampling locations,
3. A table showing the results of the radiation levels and removable contamination surveys keyed to the detailed drawing (organized by survey unit),
4. The training and qualifications of the individual(s) performing the decontamination and surveys, and
5. A description of the type of equipment used by the licensee to evaluate the wipes and perform the surveys. This description should include all information required to determine the appropriateness of the equipment for determining the radiological status of the facility, such as last calibration date, type of radiations detected, sensitivity of detection, efficiency.

Inspection Procedure 83890, "Closeout Inspection and Survey," discusses the procedures to be followed to determine whether a confirmatory survey is required at a licensed facility. In addition, NRC staff shall assign higher priority for conducting confirmatory surveys at sites that may pose a greater potential threat to the public health and safety if not remediated in accordance with NRC criteria. Inspection Procedure 83890 also summarizes the procedures to be followed to perform closeout inspections and confirmatory surveys. If a confirmatory survey is required at a licensed facility, the LR/PM should contact the licensee to arrange for the NRC staff to have access to the facility to perform the closeout inspection and confirmatory survey.

The licensee shall also submit NRC Form 314 at the completion of the decommissioning operations. Upon submission of the NRC Form 314, the LR/PM shall verify that the licensed material has been disposed of in accordance with NRC requirements. This may be accomplished by having the licensee provide written confirmation from the recipient listed on the NRC Form 314 that the material has been transferred to them, or by the LR/PM

contacting the recipient listed on the NRC Form 314 directly. If the LR/PM contacts the recipient listed on the NRC Form 314 directly to verify the transfer of licensed material, the LR/PM shall document the action with a note to file placed in the license docket file, Public Document Room, as appropriate. If the activity of the radioactive material reported on the NRC Form 314 is less than the quantities listed in 10 CFR Part 20, Appendix C, the LR/PM does not need to independently confirm receipt of the material by the recipient listed on the NRC Form 314.

After verifying the disposition of the licensed material and ensuring that a satisfactory closeout inspection and a confirmatory survey were performed, if warranted, the LR/PM will prepare a letter, for signature at the Branch Chief level or higher, informing the licensee that the license has been terminated. Appendix F contains a sample of a letter that may be used by the staff to inform the licensee that their license has been terminated.

As the final step in terminating the license, the LR/PM shall complete the "Materials License Termination/Retirement Form" contained in Appendix F. The completed form shall be included in the official docket file for the license, and a copy shall be maintained at the regional office or NRC Headquarters, when the docket files are archived.

10 Classification Under Type III and IV Decommissioning

All licensees that are required to submit a DP in accordance with NRC regulations at 10 CFR 30.36(f)(1), 40.42(f)(1) and 70.38(f)(1), as well as all Part 72 licensees, would decommission their facilities under Type III or Type IV.⁹ Facilities decommissioned under Type III or IV would have used licensed material in a manner that typically results or has resulted in its release into the environment, activated adjacent materials, or resulted in persistent contamination of work areas. Decommissioning of facilities under Type III or Type IV would require more aggressive remedial activities than those discussed under Type I or Type II above and would be expected to require more effort by the NRC and the licensee to ensure that the decommissioning was performed in a manner that protected the public health and safety and the environment.

Type III or IV classification is based on the complexity of the decommissioning and the actions that are required by the NRC to comply with NEPA. Typically, Type IV decommissionings include several actions by the NRC staff to ensure that the requirements of NEPA are satisfied, while Type III decommissionings would qualify for a categorical exclusion in accordance with 10 CFR 51.22 and, therefore, would not require these same actions. NRC staff should use the "NEPA Determination Worksheet" and "Procedure for Determining Whether a Proposed Decommissioning Action Qualifies for a Categorical Exclusion" in Appendix H to determine the appropriate staff actions to ensure compliance with NEPA and that decommissioning type is appropriate for the facility.

Sections 13–22 of this handbook describe the various components of the decommissioning process in detail, as well as the NRC staff's actions associated with these components. Many of these components, as well as the associated NRC staff actions, are common to both Type III and Type IV decommissionings. Sections 11 and 12 of this handbook describe the NRC's required actions in somewhat general terms and refer the reader to the appropriate following sections for specific review procedures or actions unique to that decommissioning type.

⁹Some licensees may already have authority to decommission their facility under their existing license(s). While these licensees may not be required to submit a decommissioning plan to NRC for review and approval before commencing decommissioning operations, the NRC staff should evaluate the licensee controls and procedures against the guidelines in this handbook to determine whether the decommissioning can be completed in a manner that is protective of public health and safety and meets the NRC criteria for release of the facility from regulatory control.

11 Type III Decommissioning

Facilities decommissioned under Type III would have used licensed material in a manner that has resulted in its release into the environment, activated adjacent materials, or resulted in persistent contamination of work areas. Type III decommissioning would include licensees that qualify for a categorical exclusion under 10 CFR 51.22 (c) and intend to decommission its facility in accordance with the NRC's criteria for unrestricted use.

Typically, these licensees would

1. Submit the notification required under 30.36(d), 40.42(d), 70.38(d), and 72.54(d).
2. Transfer the decommissioning records discussed in 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; 70.25, 70.38, 70.51; 72.30, and 72.54, as appropriate, or affirm that they are not required to retain or transfer these records.
3. Perform a preliminary assessment of the facility including a document review and a scoping survey.
4. Develop a Site Characterization Plan (SCP) (that may be reviewed by NRC at the licensee's request, based on NRC resource constraints).
5. Perform site characterization (the results may be reviewed by NRC at the licensee's request, based on NRC resource constraints).
6. Submit a DP in accordance with 10 CFR 30.36(g), 40.42(g), 70.38(g), and 72.54(g) to NRC for review and approval as a license amendment request and, if appropriate, an ER.
7. Perform the remediation using the approved DP and financial assurance mechanism (FA).
8. Transfer or dispose of all radioactive material and waste resulting from the decommissioning in accordance with the approved DP and 10 CFR Part 20, Subpart K.
9. Perform an FSS in accordance with the procedures approved in the DP.
10. Submit the Final Status Survey to NRC for review and approval.

11. Submit NRC Form 314 to NRC.

Upon receipt of the required notification from the licensee, the LR/PM shall

1. Verify the type of decommissioning review required, acknowledge receipt of the notification, and file the notification in accordance with Section 7 of this handbook.
2. Ensure that the licensee has submitted the decommissioning records discussed in 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; 70.25, 70.38, 70.51; or 72.30, 72.54, as appropriate, or has affirmed that they are not required to retain or submit these records.
3. Request that the regional office and headquarters determine whether the lead office for the decommissioning will be the NRC regional office or NRC headquarters.¹⁰
4. Contact the licensee to discuss the decommissioning process and NRC's criteria for releasing licensed sites (Appendix E contains a checklist that may be used during the LR/PM's discussion with the licensee).
5. Discuss the type and quality of information that will be expected of the licensee to support the decommissioning.
6. Determine whether any other group may have regulatory authority at the site. This may include State radiation and hazardous materials control authorities, regional radioactive waste compacts, the EPA, or the Occupational Safety and Health Administration (OSHA).
7. Determine whether local citizen or environmental groups have an interest in the site, as well as the appropriate individuals to be included on the external distribution list for documents pertaining to the decommissioning. In the past, the NRC staff has found that local (State, county, town) regulatory, land use, or public works authorities, and State representatives or county executive offices can be useful in contacting these groups. See Section 13 for information on the actions to be taken if local citizen or environmental groups have an interest in the site.

¹⁰In general, lead office responsibility will be assumed by NRC headquarters only for those decommissioning projects involving fuel cycle facilities or sites that may be listed on the SDMP if they pose significant policy issues (e.g., on-site disposal of large volumes of thorium contaminated waste). However, the LR/PM should discuss the decommissioning with NRC management, who may, if necessary, confer with NRC headquarters to determine which office will assume the lead for management of the decommissioning.

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8. If warranted by local citizen interest, arrange to establish a Local Public Document Room (LPDR) or, in lieu of establishing a formal LPDR, arrange with a local library to act as an informal LPDR.

NRC has developed, and is developing, several policy and guidance documents to aid in the management of the decommissioning of facilities. These documents are listed in Section 1 and Appendix B of this handbook and are particularly applicable to decommissioning facilities under this decommissioning type. The LR/PM should be familiar with these policy and guidance documents to ensure that each Type III decommissioning is performed in a consistent manner.

Upon receipt of the decommissioning plan¹¹ from the licensee, the LR/PM should

1. Perform an "acceptance" or "completeness" review of the DP to determine if it contains sufficient type and quality of information to begin the in-depth technical review of the DP. Appendix G contains Policy and Guidance Directive 1-22 describing the required staff actions for initial processing of licensing actions.
2. Inform the licensee of the results of the acceptance review. Appendix G contains form letters that may be used to transmit the results of the acceptance review to the licensee.
3. Prepare and publish a *Federal Register*¹² notice announcing the receipt of the DP. NMSS Policy and Procedures Letter 1-46 (see Appendix I) describes the procedures for preparing *Federal Register* notices for SDMP licensing actions and describes the minimum procedures for informing the public of NRC actions relating to decommissioning of licensed facilities. An example of a *Federal Register* notice is also included in Appendix I that may be used to announce the receipt of the DP.

¹¹ As discussed in Section 9, NRC regulations do not require that licensees submit separate characterization plans or reports for their facilities to NRC for approval. However, if a licensee requests that NRC staff review either a site characterization plan or a characterization report, and NRC agrees to review the information separate from the review and approval of the DP, the LR/PM should follow the relevant procedures for review and approval for both the characterization plan and report and the DP.

¹² 10 CFR 2.1205 discusses the public's opportunities to request hearings on licensing actions by the NRC staff, and 10 CFR 2.1205(c)(2)I-iii outlines the timeframes for noticing license amendment requests in the *Federal Register*. Per 2.1205(c)(20)iii, a member of the public may request a hearing within 180 days of the NRC granting an application (or amendment) *unless* the NRC staff has already noticed the receipt of the application (or amendment request) in the *Federal Register*. It is typically more efficient for the staff to notice the receipt of the DP in the FR prior to approval, and offer the public the opportunity to comment on it, than to wait until the DP has been approved by the staff, which may result in a delay in the commencement of decommissioning activities.

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4. If the acceptance review indicates that the DP is acceptable, review the DP as described in Sections 13-21 of this handbook.
 5. If the acceptance or technical review indicates that the DP is unacceptable, inform the licensee of the deficiencies. Coordinate the resolution of the deficiencies with the licensee and any other appropriate organizations exercising regulatory authority at the facility;
 6. Document the review of the DP using the checklist in Appendix J.
 7. During the review of the DP, hold a public meeting, if warranted based on discussions with NRC management, the licensee, other regulatory authorities, or interested members of the public. See Section 13 of this handbook and Appendix K for additional information concerning public meetings.
 8. Upon approval of the DP, incorporate it into the license as a license amendment.

During the remedial activities, the LR/PM shall

1. Make every effort to visit the facility during each significant phase of the decommissioning (i.e., characterization, cleanup, final status survey) or at least once per year. This visit should be coordinated with an announced inspection of the facility by qualified inspectors. See Section 18 for a discussion of inspections of facilities undergoing decommissioning.
2. Maintain contact with other interested parties, such as other regulatory authorities and members of the public, and make every effort to keep these individuals or groups informed of the progress of the decommissioning.
3. Ensure that documents relating to the decommissioning are forwarded to the LPDR.
4. If warranted, hold additional public meetings to provide interested citizens with periodic updates on the progress of the decommissioning operations.
5. As appropriate, coordinate the review and approval of modifications to the DP with any other groups exercising regulatory authority at the facility.

Upon receipt of the FSSR from the licensee, the LR/PM shall

1. Perform an "acceptance" or "completeness" review of the FSSR to determine whether it contains sufficient type and quality of information to begin the in-depth technical review of the FSSR.
2. Inform the licensee of the results of the acceptance review.
3. If the acceptance review indicates that the FSSR is acceptable, review the FSS in accordance with Section 19 of this handbook.
4. If the acceptance or technical review indicates that the FSSR is unacceptable, inform the licensee of the deficiencies. Coordinate the resolution of the deficiencies with the licensee and any other appropriate organizations exercising regulatory authority at the facility.

Upon completion of the review and acceptance of the FSSR, the LR/PM shall

1. Determine whether a confirmatory survey will be conducted at the facility (see Section 20 for guidance).
2. If the staff intends to employ a contractor to perform the confirmatory survey, provide the contractor with a copy of the FSSR.
3. Follow the procedures discussed in Section 20 to review and approve the confirmatory survey.

Upon approval of the confirmatory survey report (if required), the LR/PM shall verify that the licensed material has been disposed of in accordance with NRC requirements. This may be accomplished by having the licensee provide written confirmation from the recipient listed on NRC Form 314 that the material has been transferred to them or by the LR/PM contacting the recipient listed on NRC Form 314 directly. If the LR/PM contacts the recipient listed on NRC Form 314 directly to verify the transfer of licensed material, the LR/PM shall place a note to file in the license docket file, Public Document Room, as appropriate. The LR/PM shall also perform or arrange to have a closeout inspection performed at the facility. Inspection Procedure 83890 summarizes the procedures to perform closeout inspections. The LR/PM should contact the licensee to arrange for the NRC staff to have access to the facility to perform the closeout inspection. If possible the LR/PM should accompany the inspector during the closeout inspection.

After verifying the disposition of the licensed material and ensuring that a satisfactory closeout inspection was performed, the LR/PM will prepare a letter, for signature at the Branch Chief level or higher, informing the licensee that the license has been terminated. Appendix E contains a sample of a letter that may be used by the staff to inform the licensee that their license has been terminated.

As the final step in terminating the license, the LR/PM shall complete the "Materials License Termination/Retirement Form" contained in Appendix F. The completed form shall be included in the official docket file for the license, and a copy shall be maintained at the regional office or NRC Headquarters, when the docket files are archived.

12 Type IV Decommissioning

Facilities decommissioned under Type IV would have used licensed material in a manner that has resulted in its release into the environment, activated adjacent materials, or resulted in persistent contamination of work areas. Type IV decommissioning would include licensees that would not qualify for a categorical exclusion under 10 CFR 51.22 (c) or intend to decommission its facility such that residual radioactive material may remain at the site in excess of the levels specified in NRC's criteria for unrestricted use.

The actions taken by the licensee and NRC staff under Type IV decommissioning are essentially the same as those under Type III. However, because the decommissioning of these facilities would not qualify for a categorical exclusion under 10 CFR 51.22 and may result in residual radioactive material in excess of the NRC's criteria for unrestricted use being left at the site after termination of the license, the NRC staff will be required to perform several additional actions to comply with NEPA.

Section 13 of this handbook discusses the requirements for conducting decommissioning in accordance with the NEPA. The LR/PM shall review Section 13 to determine what types of notifications will be required during the decommissioning process. In addition, NMSS Policy and Procedures Letter 1-46 (see Appendix I) describes the procedures for preparing *Federal Register* notices for SDMP licensing actions and describes the minimum procedures for informing the public of NRC actions relating to decommissioning of licensed facilities.

NRC actions under Type IV decommissionings are the same as those under Type III, above, with the following exceptions:

1. The NRC shall generally rely on a confirmatory survey to verify the radiological status of the facility.
2. The review of the DP shall be supported by the development of a Safety Evaluation Report by the NRC staff.
3. The NRC shall evaluate the licensee's request to terminate its license through the development of an EA.
4. If the EA demonstrates that the proposed decommissioning will not have an adverse impact on the environment, the staff shall document this demonstration through a FONSI.

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5. If the EA indicates that the proposed decommissioning may have an adverse impact on the environment (i.e., if radioactive material in excess of NRC's criteria for unrestricted use is left in place at the completion of decommissioning), the NRC staff will prepare an EIS summarizing these impacts.

Typically, these licensees would

1. Submit the notification required under 30.36(d), 40.42(d), 70.38(d), or 72.54(d).
2. Transfer the decommissioning records discussed in 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; 70.25, 70.38, 70.51; or 72.30, 72.54, as appropriate, or affirm that they are not required to retain or transfer these records.
3. Perform a preliminary assessment of the facility including a document review and a scoping survey.
4. Develop a site characterization plan (that may be reviewed by NRC at the licensee's request, based on NRC resource constraints).
5. Perform site characterization (the results may be reviewed by NRC at the licensee's request, based on NRC resource constraints).
6. Submit a DP in accordance with 10 CFR 30.36(g), 40.42(g), 70.38(g), and 72.54(g) to NRC for review and approval as a license amendment request and, if appropriate, an ER, or submit an alternative to decommissioning the facility to permit release for unrestricted use.

If the decommissioning alternative chosen by the licensee is to remediate residual radioactive materials, attributable to licensed operations, to levels that permit unrestricted use, the licensee would

1. Perform the remediation using the approved DP and FA.
2. Transfer or dispose of all radioactive material and waste resulting from the decommissioning in accordance with the approved DP and 10 CFR Part 20, Subpart K.
3. Perform an FSS in accordance with the procedures approved in the DP.
4. Submit the FSS to NRC for review and approval.

5. Submit NRC Form 314 to NRC.

If the decommissioning alternative chosen by the licensee is to request termination of the license with residual radioactive materials, attributable to licensed operations, at levels that exceed NRC's criteria for unrestricted use, the licensee would submit an ER containing the information discussed in Appendix L.

Upon receipt of the required notification from the licensee, the LR/PM shall

1. Verify the type of decommissioning review required, acknowledge receipt of the notification, and file the notification in accordance with Section 7 of this handbook.
2. Ensure that the licensee has submitted the decommissioning records discussed in 10 CFR 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; 70.25, 70.38, 70.51; or 72.30, 72.54, as appropriate, or has affirmed that they are not required to retain or submit these records.
3. Request that the regional office and Headquarters determine whether the lead office for the decommissioning will be the NRC regional office or NRC headquarters.¹³
4. Contact the licensee to discuss the decommissioning process, NRC's criteria for releasing licensed sites, and inquire whether the licensee has decided on its preferred decommissioning alternative.
5. Discuss the options available to the licensee to complete the decommissioning with the licensee, as well as the type and quality of information that will be expected of the licensee to support the decommissioning.
6. Determine whether any other group may have regulatory authority at the site. This may include State radiation and hazardous materials control authorities, regional radioactive waste compacts, the EPA or OSHA.
7. Determine whether local citizen or environmental groups have an interest in the site, as well as the appropriate individuals to be included on the external distribution list for documents pertaining to the decommissioning. In the past, NRC has found that local (State, county, town) regulatory, land use, or public works authorities, and State

¹³In general, lead office responsibility will be assumed by NRC headquarters only for those decommissioning projects involving fuel cycle facilities or sites that may be listed on the SDMP if they pose significant policy issues (e.g., on-site disposal of large volumes of thorium contaminated waste). However, the LR/PM should discuss the decommissioning with NRC management, who may, if necessary, confer with NRC headquarters to determine which office will assume the lead for management of the decommissioning.

representatives or county executive offices can be useful in contacting these groups (see Section 13).

8. If warranted by local citizen interest, arrange to establish a Local Public Document Room (LPDR) or, in lieu of establishing a formal LPDR, arrange with a local library to act as an informal LPDR.

For Type IV decommissionings where the decommissioning goal is to remove residual radioactive material to levels that permit release of the facility for unrestricted use and termination of the license, the LR/PM should, upon receipt of the DP¹⁴ from the licensee

1. Perform an "acceptance" or "completeness" review of the DP to determine whether it contains sufficient type and quality of information to begin the in-depth technical review of the DP. Appendix G contains Policy and Guidance Directive 1-22 describing the required staff actions for initial processing of licensing actions.
2. Inform the licensee of the results of the acceptance review. Appendix G contains form letters that may be used by the staff to transmit the results of the acceptance review to the licensee.
3. Prepare and publish a *Federal Register* notice announcing the receipt of the DP. NMSS Policy and Procedures Letter 1-46 (see Appendix I) describes the procedures for preparing *Federal Register* notices for SDMP licensing actions and describes the minimum procedures for informing the public of NRC actions relating to decommissioning of licensed facilities. An example of a *Federal Register* notice that may be used by the NRC staff to announce the receipt of the DP is also included in Appendix I.
4. If the acceptance review indicates that the DP is acceptable, review the DP as described in Sections 13-21 of this handbook.
5. If the acceptance or technical review indicates that the DP is unacceptable, inform the licensee of the deficiencies. Coordinate the resolution of the deficiencies with the licensee and other appropriate organizations exercising regulatory authority at the facility.

¹⁴ As discussed above, NRC regulations do not require that licensees submit separate characterization plans or reports for their facilities to NRC for approval. However, if a licensee requests that NRC staff review either a site characterization plan or a characterization report, and NRC agrees to review the information separately from the review and approval of the DP, the LR/PM should use the following procedures for review and approval for both the characterization plan and report and DP.

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6. Document the review of the DP using an SER containing the information summarized in Appendix M.
 7. During the review of the DP, hold a public meeting, if warranted based on discussions with NRC management, the licensee, other regulatory authorities, or interested members of the public. See Section 13 of this handbook and Appendix K for additional information concerning public meetings.
 8. Upon approval of the DP, incorporate it into the license as a license amendment.

During the remedial activities the LR/PM shall

1. Make every effort to visit the facility during each significant phase of the decommissioning (i.e., characterization, cleanup, FSS) or at least once per year. This visit should be coordinated with an announced inspection of the facility by qualified inspectors. See Section 18 for a discussion of inspections of facilities undergoing decommissioning.
2. Maintain contact with other interested parties, such as other regulatory authorities and members of the public and make every effort to keep these individuals or groups informed of the progress of the decommissioning.
3. Ensure that documents relating to the decommissioning are forwarded to the LPDR.
4. If warranted, hold additional public meetings to provide interested citizens with periodic updates on the progress of the decommissioning operations.
5. As appropriate, coordinate the review and approval of modifications to the DP with any other groups exercising regulatory authority at the facility.

Upon receipt of the FSSR from the licensee the LR/PM shall

1. Perform an "acceptance" or "completeness" review of the FSSR to determine whether it contains sufficient type and quality of information to begin the in-depth technical review of the FSSR.
2. Inform the licensee of the results of the acceptance review.
3. If the acceptance review indicates that the FSSR is acceptable, review the FSS in accordance with Section 19 of this handbook.

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4. If the acceptance or technical review indicates that the FSSR is unacceptable, inform the licensee of the deficiencies. Coordinate the resolution of the deficiencies with the licensee and any other appropriate organizations exercising regulatory authority at the facility.

Upon completion of the review and acceptance of the FSSR, the LR/PM shall

1. Arrange for a confirmatory survey to be conducted at the facility. If the staff intends to employ a contractor to perform the confirmatory survey, provide the contractor with a copy of the FSSR.
2. Follow the procedures discussed in Section 20 to review and approve the results of the confirmatory survey.

Upon approval of the confirmatory survey report, the LR/PM shall verify that the licensed material has been disposed of in accordance with NRC requirements. This may be accomplished by having the licensee provide written confirmation from the recipient listed on NRC Form 314 that the material has been transferred to them, or by having the LR/PM contact the recipient listed on the NRC Form 314 directly. If the LR/PM contacts the recipient listed on the NRC Form 314 directly to verify the transfer of licensed material, the LR/PM shall document the action with a note to file placed in the license docket file, PDR, as appropriate.

The LR/PM shall also perform or arrange to have a closeout inspection performed at the facility. Inspection Procedure 83890 summarizes the procedures to perform closeout inspections. The LR/PM should arrange for the NRC staff to have access to the facility to perform the closeout inspection. If possible the LR/PM should accompany the inspector during the closeout inspection.

After verifying the disposition of the licensed material and ensuring that a satisfactory closeout inspection has been performed, the LR/PM will prepare a FONSI, based on, and supported by, an EA summarizing the staff's evaluation that the proposed termination of the license will not have an adverse impact on the human environment. Appendix L includes an outline for an EA and an example of an EA and a FONSI that may be used by the NRC staff. After the staff has developed the EA and FONSI, the staff shall publish them in the *Federal Register*, along with an opportunity for the public to request a hearing in accordance with 10 CFR Part 2. An example of a *Federal Register* notice is also included in Appendix L. As the final step in terminating the license, the LR/PM shall prepare a letter, for signature at the Branch Chief level or higher, informing the licensee that the license has been terminated.

If the decommissioning alternative chosen by the licensee is to request termination of the license with residual radioactive materials, attributable to licensed operations, at levels that exceed NRC's criteria for unrestricted use, the LR/PM is also required to follow the procedures outlined in Appendix N to develop the EIS to support the NRC staff's evaluation of the impacts of the proposed action. Typically the EIS would be developed to support the NRC staff's evaluation of the DP before beginning remedial actions. Type IV decommissionings, with the decommissioning goal to leave residual radioactive material in excess of the NRC's criteria for unrestricted use, are not expected to occur with high frequency. LR/PMs should use the procedures discussed in Appendices L and N of this handbook and incorporate the staff actions summarized above, as appropriate.

13 Enhanced Public Participation

The NRC has found that early involvement of the public in decommissioning projects fosters enhanced understanding of NRC procedures and confidence that the decommissioning of the facility will be carried out in a manner that is protective of the public health and safety, and the environment. A good mechanism for involving the public in the decommissioning is to hold public meetings at the beginning of the decommissioning process (i.e., before approval of the DP), as well as periodically throughout the decommissioning of the facility, usually at major milestones in the decommissioning. These meetings should be used to identify specific issues of concern to the public, as they may be considered in NRC reviews of site characterization information and DPs and in the preparation of EAs and EISs. This is further enhanced by informing members of the public of NRC's mechanisms for noticing meetings between NRC and its licensees (see NMSS Policy and Procedures Letter 1-23) and providing key members of the public with advance notice of these meetings. Early and continued involvement of the public is particularly useful during the decommissioning of facilities that have had a history of violations or controversy, especially those associated with releases of radioactive material to the environment, or have caused health or safety concerns within the local community or among facility workers.

Management Directive 3.5 (revised May 24, 1996) discusses the responsibilities of NRC staff to afford members of the public the opportunity to observe meetings between the NRC staff and licensees. In a memorandum dated February 12, 1996, the NRC Executive Director for Operations (EDO) outlined those instances where public meetings may be appropriate. NMSS Policy and Procedures Letter 1-23 discusses the NRC staff's responsibilities for conducting and reporting meetings with licensees. Finally, NUREG/BR-0199, "Public Responsiveness Assurance Plan," discusses the improvements that the NRC staff plans to use to enhance opportunities for public involvement and information during decommissioning. Management Directive 3.5, the EDO's memorandum dated February 12, 1996, and NMSS Policy and Procedures Letter 1-23 are included in Appendix K.

As discussed in NUREG/BR-0199, the staff should, as appropriate, incorporate the actions summarized below in the decommissioning of facilities subject to the Commission's jurisdiction.

1. Make all NRC meetings with contaminated site licensees and responsible parties open to the public for observation (consistent with the policy statement on staff meetings open to the public). To the extent feasible, NRC will provide advance notice of these

meetings to State, Tribal, and local officials, and the public. NRC will conduct a significant proportion of such meetings in the vicinity of the site.

2. Identify the LR/PM as the principal NRC point of contact for each decommissioning site. This individual will work closely with other NRC staff to ensure a coordinated response to public concerns and inquiries.
3. Announce the availability of decommissioning plans and related documents in the *Federal Register* and local media, as appropriate, and offer an opportunity for a hearing on the proposed license amendments. NRC will generally solicit written comments on the draft documents prior to taking licensing actions to approve site DPs, except in cases where the contamination is extremely limited or schedules imposed by outside parties (other than licensees) do not allow sufficient time for such review prior to approval.
4. Hold a public meeting on the scope of the EIS where NRC determines that an EIS needs to be prepared. The meeting will be held near the site as part of the scoping process, in accordance with the requirements in 10 CFR Part 51. NRC will solicit oral and written comments on what environmental impact and what decommissioning alternatives should be considered as part of the EIS. NRC will advertise the meeting in the local media. NRC will also distribute copies of the draft EIS to designated Federal, State, and local representatives, and members of the public who attend the scoping meeting or otherwise express interest in the decommissioning action.
5. Provide additional opportunities for public information and involvement in the decommissioning process on a site-specific basis, considering the level of hazards involved and the public interest expressed.

The staff shall use the procedures summarized in Management Directive 3.5 to afford the public the opportunity to observe meetings between NRC staff and licensees. The staff shall use the indicators discussed in the February 12, 1996, memorandum from the EDO to determine when a public meeting may be warranted and the procedures summarized in NMSS Policy and Procedures Letter 1-23 in conducting and reporting staff meetings.

14 Decommissioning Plans

NRC regulations at 10 CFR 30.36(f)(4)(ii) and (iii), 40.42(f)(4)(ii) and (iii), and 70.38(f)(4)(ii) and (iii) require that DPs contain "...a description of the planned decommissioning activities" and "...a description of the methods used to ensure protection of workers and the environment against radiation hazards during decommissioning." NRC regulations at 10 CFR 72.54(f)(2),(3) and (6) require that DPs contain "...the choice of the alternative for decommissioning with a description of the activities involved", "...a description of the controls and limits on procedures and equipment to protect occupational and public health and safety," and "...a description of technical specifications and quality assurance provisions in place during decommissioning." Generally, this information is developed by the licensee after determining the radiological status of the facility and is presented to NRC for review and approval in the form of a license amendment request to authorize decommissioning in accordance with the DP.

The objective of the DP is to describe the activities and procedures that the licensee intends to undertake to remove residual radioactive material attributable to licensed activities at the facility to levels that meet NRC criteria. To the extent that licensed material is commingled with elevated (i.e., above background levels) naturally occurring radioactive material (NORM), the elevated NORM is also remediated in decommissioning.¹⁵ The DP must describe these procedures and activities in sufficient detail to allow the NRC to determine whether decommissioning of the facility can be accomplished safely. Typically decommissioning plans should contain the following information:

- A summary of the planned decommissioning activities, decommissioning criteria, and decommissioning objective, i.e., an Executive Summary.

¹⁵In a letter dated August 9, 1995, to the EPA, NRC staff stated "Under NRC's proposed rule "Residual Criteria for Decommissioning," "residual radioactivity" is defined, in part, as "radioactivity in structures, materials, soils, groundwater, and other media at a site resulting from activities under the licensee's control. This includes radioactivity from all licensed and unlicensed sources used by the licensee, but excludes background radiation."....Just as the dose limits in 10 CFR Part 20 do not distinguish whether the non-background source of exposure is AEA or non-AEA material, similarly the exposure criteria in the proposed rule are inclusive in terms of the origin of the exposure. If the AEA and non-AEA materials are commingled, NRC, or the appropriate Agreement State, would coordinate with the State or U.S. Environmental Protection Agency to determine the lead regulatory authority for decommissioning. This would be the case whether or not the non-AEA material was in the form of discrete contaminated items or was distributed in soil, water, or other media. Note that if a licensee conducted carefully segregated operations using non-AEA radioactive materials in an area outside of the site or area being proposed for decommissioning and no commingling of contamination in environmental media has occurred or is likely to occur, the NRC's decommissioning action would not control the remediation of any contamination from this non-AEA radioactivity.

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- A detailed description of the facility and environs. In many cases this information may be presented in an environmental report developed by the licensee as part of its license application.
 - An in-depth description of the facility operating history including discussions of any routine practices or abnormal occurrences that may impact on the decommissioning of the facility. The records discussed in 10 CFR Parts 30.35(g), 40.36(f), 70.25(g) and 72.30(d) should be included in this section.
 - A description of the radiological status of the facility.
 - A description of the decommissioning alternatives considered by the licensee and the rationale for selecting the alternative chosen.
 - A description of the decommissioning project management and organization, including contractor assistance.
 - A description of the regulations, regulatory guides, and standards that will be used during the decommissioning.
 - A description of the occupational safety, industrial hygiene, and radiation protection programs.
 - A description of the decontamination and dismantlement tasks, including a generic description of decontamination methods and a schedule of the planned activities.
 - A description of toxic, hazardous waste, or mixed waste management activities and a description of the radioactive waste management program.
 - A description of the site security and emergency response programs for all potential emergency situations.
 - A radiological accident analysis.
 - A description of the survey instrumentation that will be used during the decommissioning as well as a description of the survey methods that will be employed.
 - A description of the technical and environmental specifications for the decommissioning project.

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- A description of the quality assurance/quality control program.
 - A description of the proposed termination survey and final status survey report.
 - A detailed decommissioning cost estimate.
 - A description of the impact that site operations have had, and decommissioning operations will have, on site and surrounding ground and surface water.

Regulatory Guide 3.65, "Standard Format and Content of Decommissioning Plans for Licensees Under 10 CFR Parts 30, 40, and 70," and Policy and Guidance Directive FC 91-2, "Standard Review Plan: Evaluating Decommissioning Plans For Licensees Under 10 CFR Parts 30, 40, and 70," discuss the information needed by the NRC to evaluate the adequacy of proposed DPs in detail.

Upon receipt of the DP, the LR/PM should perform a limited acceptance review to determine whether the DP contains the minimum information needed by the NRC. The results of this review should be conveyed to the licensee within 30 days of the receipt of the DP. The LR/PM may convey the results of the acceptance review either in writing or by telephone as long as the action is documented with a note to the docket file summarizing the items discussed with the licensee, as well as the time and date that the discussion occurred. If the DP does not contain the minimum information needed by the staff, the LR/PM shall contact the licensee as soon as possible to inform the licensee that the DP is inadequate and additional information is needed. If the additional information needs are limited in scope, review of the plan should commence. Otherwise the LR/PM should notify the licensee that the review of the DP will be discontinued until the needed information is received by NRC.

If the limited review of the DP indicates that it contains information of sufficient type and quality to fully describe the remedial activities, the LR/PM should determine whether the DP, or portions of the DP, should be reviewed by other specialists within NRC, such as a groundwater hydrogeologist. In addition, if it appears that issues related to NRC policies may arise during the decommissioning, the LR/PM should contact DWM to request assistance. The LR/PM shall also contact any other regulatory authorities having responsibility at the site (e.g., EPA, or State equivalents, and State radiation regulatory authorities) to establish a mechanism for coordinating the review of the DP and the decommissioning of the facility.

The LR/PM shall review the DP in detail to determine if the procedures described in the DP are adequate to ensure that the goals of the remediation plan can be achieved and removal of residual radioactive material at the facility can be accomplished safely. The

LR/PM should refer to Regulatory Guide 3.65, "Standard Format and Content of Decommissioning Plans for Licensees Under 10 CFR Parts 30, 40, and 70," and Policy and Guidance Directive FC 91-2, "Standard Review Plan: Evaluating Decommissioning Plans For Licensees Under 10 CFR Parts 30, 40, and 70," for guidance in evaluating DPs. If the DP is submitted as a license amendment request, receipt should be noticed in the *Federal Register*, along with an opportunity to request a hearing. These procedures are discussed in Policy and Procedures Letter 1-46. Notice of the DP early in the decommissioning process avoids potential delays later in the process or hearings after performance of the decommissioning.

In addition, the LR/PM must ensure that the review of the DP is performed in accordance with NEPA. Section 16 discusses the procedures for evaluating DPs to ensure compliance with NEPA, including the information required in an ER and the preparation of EAs and EISs. If the evaluation of the DP, as discussed below, indicates that the decommissioning goals can be accomplished safely, and the requirements of NEPA have been satisfied, the LR/PM shall prepare a letter, for signature at the Branch Chief level or higher, informing the licensee that the DP is approved and, if appropriate, has been incorporated into the facility's license¹⁶ as a license condition. For Type I-III decommissionings, this amendment should be supported by a Categorical Exclusion, the staff's review and acceptance of the licensee's FSSR, and any closeout surveys or inspections. For Type IV decommissionings, the license amendment should be supported by an EA and FONSI, or an EIS with a Record of Decision (ROD) and SER. The amendment must be issued in accordance with the requirements of 10 CFR Part 51. Amendments supported by an EA and FONSI cannot be issued until one day after the date the FONSI is published in the *Federal Register*.

In addition to the environmental review documented in the EA or EIS, the NRC staff's evaluation of whether the decommissioning can be accomplished safely is documented in a Safety Evaluation Report (SER). The SER addresses the licensee's planned decommissioning procedures as discussed in the DP and evaluates the proposed procedures to ensure that they are adequate to protect the health and safety of the public and workers. The SER specifically provides the technical basis for the staff's conclusion that the proposed actions sufficiently protect the public and workers and the environment. Appendix M provides an outline for developing an SER that may be used by the LR/PM.

If the review does not indicate that the goals of the DP can be accomplished safely, the LR/PM shall identify the inadequacies in the DP to the licensee in writing as soon as possible. The LR/PM may communicate the deficiencies to the licensee verbally, as long

¹⁶ Although incorporation of the DP into the facility license is not required by NRC regulations, past practice has been to incorporate DPs into facility licenses to provide a mechanism to ensure that the decommissioning is conducted in accordance with the DP.

as this communication is followed up with written correspondence. License conditions may need to be added in approving the DP to identify special requirements that are needed to ensure protection of the public, workers, and the environment. In addition, any alternative schedule to perform the decommissioning should be specifically approved as part of the review of the DP, along with financial assurance arrangements for decommissioning.

15 Site Characterization

NRC requirements for decommissioning under 10 CFR Parts 30.36(f)(4)(I), 40.42(f)(4)(I), 70.38(f)(4)(I), and 72.54(f)(1) require that proposed DPs include "...a description of the conditions of the site or separate building or outdoor area sufficient to evaluate the acceptability of the plan." Licensees should employ a two-step process in determining the radiological conditions at the site: a preliminary assessment and a site characterization survey. Chapter 3 of NUREG/CR-5849 and the draft "Branch Technical Position on Site Characterization for Decommissioning" (BTP) contain detailed descriptions of the type of information appropriate for determining the radiological status of licensed facilities and shall be used by the LR/PM to determine the adequacy of the site characterization information. Additional non-radiological information may be needed to assess the acceptability of proposed decommissioning actions, particularly at sites with known or potential groundwater contamination or that involve on-site disposals.

The preliminary assessment consists of a review of all pertinent information relating to licensed activities at the facility. The objective of the preliminary assessment is to allow the licensee to classify the site into "affected" and "unaffected" areas. It should include discussions with current and former employees, reviewing all relevant records¹⁷ of licensed material usage, such as licenses and amendments, NRC and licensee inspection reports, radiation safety program records, records of spills or other unusual occurrences, as-built drawings and modifications of structures and equipment in licensed material use areas, and all existing and former waste disposal areas. Licensees should be encouraged to review the NRC docket file(s) and information in the PDR to assist in this assessment.

Licensees should also augment their record reviews by performing a scoping survey. Scoping surveys typically consist of limited direct measurements (exposure rates and activity levels) at site locations considered to be the most likely to contain residual radioactivity and from other site locations: (1) immediately adjacent to licensed material use areas and (2) in areas not expected to have been affected by licensed activities.

Based on the available information and the scoping survey, licensees should prepare an SCP that discusses the site characterization activities, including assessment activities, techniques, and methods to be employed and the time schedule for completion of these activities. The content of the SCP should be consistent with the guidance in the BTP on site characterization and should address all affected environmental media, including

¹⁷NRC regulations at 10 CFR 30.35(g), 40.36(f), 70.25(g) and 72.30(d) discuss specific decommissioning records that must be maintained by licensees to support the decommissioning of their facilities.

structures, soil, and ground and surface water. The objectives of site characterization are (1) to determine the type and extent of radiological contamination of structures, residues, and environmental media (including the rate(s) of migration) and (2) to determine environmental conditions that could affect the rate and directions of radionuclide transport and potential human and environmental exposures to radionuclides. This information is needed to assess (1) the scope of proposed decommissioning actions, (2) ensure the safety of decommissioning workers, (3) evaluate potential environmental releases during decommissioning, (4) determine the adequacy of decommissioning funding or financial assurance, (5) support the evaluation of alternative decommissioning actions, and (6) plan the preferred approach for decommissioning, decontamination, and waste disposal.

In most instances, it is more appropriate to obtain information on the radiological status of the site prior to developing the site remediation plan. Most licensees can submit site characterization information, along with the DP. In discussing the decommissioning of the facility with the licensee, the LR/PM should caution the licensee that submission of incomplete site characterization information may result in NRC refusing to accept and review the DP until appropriate site characterization information is obtained. Therefore, it is to the licensee's advantage to first determine the radiological status of the facility and complete adequate site characterization that supports a range of decommissioning alternatives before determining the scope of remedial activities. The LR/PM should also ensure that the licensee is aware of the requirement to submit the DP within 12 months of notifying the NRC that the site is no longer being used for licensed activities. NRC staff does not approve the SCP prior to the licensee developing the site characterization information. For those licensees that warrant additional attention by the NRC, the licensee may be requested to submit SCPs and site characterization information prior to submitting the DP or NRC may elect to meet with the licensee prior to, or during, site characterization. However, it is important to note that, unless required by a license condition, licensees are not required under NRC regulations to submit a separate SCP or Site Characterization Report (SCR), only that site characterization information is required as a component of the DP. Therefore, the staff should request this information only when necessary to ensure that the decommissioning can be accomplished safely and in compliance with the appropriate NRC regulations.

Typically, the LR/PM should visit the site before reviewing the DP, SCP, and site characterization information to gain familiarity with the site and surrounding areas. This visit should also be used to identify specific issues that should be addressed as part of site characterization. This is especially significant because relatively few licensees will submit SCPs for NRC reviews before implementation. This site visit should be coordinated with the licensee and, in the case of sites where lead responsibility for decommissioning has been assigned to NRC headquarters, the NRC regional office. In addition, if any information indicates the presence of hazardous or toxic material at the site, the LR/PM

shall contact the appropriate Federal or State regulatory authorities to (1) ensure that they are aware of the planned decommissioning, (2) inform them of the planned visit, and (3) ask if they would like to participate.

If the licensee submits an SCP to NRC staff for review before developing site characterization information, the LR/PM shall review the SCP using the guidance offered in the BTP on site characterization and identify any deficiencies to the licensee in writing. Discussions, either in person or over the telephone, may be used to discuss the deficiencies, as long as these discussions are properly documented and placed in the docket file and in the public document rooms. In addition to the review of the SCP for technical adequacy, the LR/PM should ensure that the licensee's schedule for performing the site characterization and development of the remediation plan can be accomplished in accordance with NRC's requirements in 10 CFR 30.36(g), 40.42(g), 70.38(g) and 72.54(h). If it does not appear that the licensee can complete the decommissioning in accordance with the timeframes discussed in these regulations, the LR/PM should inform the licensee that it may need to request an alternative schedule in accordance with 10 CFR 30.36(e), 40.42(e), 70.38(e), and 72.54(e)(1) and amend its license to include the decommissioning schedule.

Site characterization information may be requested by the NRC in advance of the DP submittal for licensees that satisfy the criteria identified in SECY 95-209. If the licensee submits an SCR, or if this characterization information is submitted as part of the DP, LR/PM shall assess (1) site characterization information using the SCP, if one was developed, (2) guidance contained in the BTP on-site characterization, and (3) NUREG/CR-5849 to determine if it is complete, contains sufficient information to characterize the full extent of radiological contamination, and covers all possible affected environmental media. The LR/PM shall also assess the information to determine if it is sufficient to support evaluation of reasonable decommissioning approaches or alternatives. If the site characterization information is adequate, the LR/PM should indicate so in the letter approving the DP. If it is inadequate, the NRC shall inform the licensee of the deficiencies in writing and request additional characterization information and data, as appropriate.

In some cases, site characterization may indicate compliance with NRC decommissioning criteria, or the licensee may wish to use site characterization data to demonstrate that the facility meets NRC's criteria (i.e., use the characterization survey data as final status survey data). NRC generally would allow this practice as long as the characterization survey data are of sufficient type and quality to demonstrate that the facility meets NRC's criteria, and the licensee can demonstrate that the radiological status of the facility has not changed from that observed during the site characterization (i.e., controls are in place to ensure that previously uncontaminated areas are not contaminated during decommissioning).

16 NEPA Compliance

10 CFR Parts 2 and 51 describe the activities required for compliance with the Administrative Procedures Act and NEPA. 10 CFR Part 2 describes the procedures for the issuance, amendment, transfer, or renewal of a license, including notifying State and local officials and the public of the NRC staff's actions, or intended actions, public involvement in the licensing process, and the conduct of hearings related to licensing actions. Part 2 also covers enforcement and other administrative procedures. 10 CFR Part 51 describes the procedures and requirements for evaluating proposed actions under NEPA including the development of EAs and EISs and the requirement to notice these actions and solicit input from interested members of the public. In general, actions proposed by a licensee, or the NRC staff, that involve the consideration of radiation hazards will require the LR/PM to notice the proposed action, as well as the NRC staff's decisions regarding the proposed actions, in the *Federal Register*. Actions requiring public notification are discussed in 10 CFR Part 2, particularly 10 CFR 2.102-2108 and Part 51.

Typically, the decommissioning alternative chosen by the licensee will determine the activities that will be undertaken to ensure that the decommissioning is accomplished in accordance with the requirements of NEPA. However, the obligation to comply with the NEPA is NRC's, not the licensee's. NRC requirements in 10 CFR 51.20 - 51.22 describe a tiered approach for determining the appropriate procedures for evaluating licensing actions by the NRC staff under NEPA that are applicable to the review and evaluation of the licensee's DP. The result of this evaluation is a determination that the decommissioning alternative is eligible for a categorical exclusion or that the development and issuance of either an EA and/or an EIS is required.

A categorical exclusion is a category of actions that individually or cumulatively do not have an adverse effect on the human environment and that the Commission has found to have no such effect. This determination has been made generically in the rulemaking that established 10 CFR Part 51. Categories of licensing actions that are categorical exclusions are summarized in 10 CFR 51.22(c). Policy and Procedures Letter 1-48 contains further information on categorical exclusions, as well as information on the development of EAs. Typically, neither an EA nor an EIS are required for actions that qualify for a categorical exclusion. However, NRC may elect to prepare an EA or EIS where special conditions warrant a more thorough assessment (e.g., the proposed action goes beyond that contemplated in the categorical exclusion). In addition, actions that qualify for categorical exclusions are not subject to the notification requirements described in 10 CFR Part 2. Generally, if a licensee is not required to develop a DP, the action would qualify for a

categorical exclusion. However, even if a DP is required, the action may qualify for a categorical exclusion.

The development of an EIS is required for those major Federal actions that could have a significant effect on the quality of the human environment or that the Commission has determined should be covered by an EIS. Licensing actions requiring the development of an EIS are summarized in 10 CFR 51.20(b)(1-14). In most instances, if an EIS were required for decommissioning actions, the EIS would be developed in accordance with 10 CFR 51.20(a)(1). An example of the type of decommissioning alternative that would require the development of an EIS would be one that involved the on-site treatment and disposal of large volumes of radioactive waste from decommissioning that exceed unrestricted release concentrations. An EA is required for those actions not eligible for a categorical exclusion, but the development of an EIS is not required. The decommissioning of most facilities described under Type IV will only require the development of an EA provided that the action is covered in the scope of actions assessed in the generic EIS that supported promulgation of NRC decommissioning regulations (NUREG-0856). Approval of a DP that requires an EA or EIS also requires the publication of a notice in the *Federal Register* outlining the NRC staff's planned actions and affording the public the opportunity to comment or request a hearing. EAs may also lead to the development of EISs if the NRC is unable to support the FONSI. The FONSI must be published in the *Federal Register* prior to approval of a DP supported by an EA.

Upon receipt of the DP, or as soon as the LR/PM is informed of the decommissioning alternative that will be proposed by the licensee, the LR/PM should determine which type of evaluation will be required to review the DP. Appendix H contains a worksheet that may be used by the LR/PM to determine which type of actions are appropriate to ensure that decisions on decommissioning actions are appropriately supported by EAs and EISs.

In the routine case, after the LR/PM completes the review of the DP, the LR/PM prepares an EA based on the proposed DP, as supplemented by the licensee's ER summarizing the staff's conclusion on whether the licensee can perform the remediation safely. 10 CFR 51.30 describes the information to be included in an EA. 10 CFR 51.60 describes the information that the licensee shall provide in the ER for use in developing the EA. Appendix L provides an outline for an EA.

If the review, as summarized in the EA, indicates that the proposed action will not have a significant effect on the quality of the human environment, the LR/PM shall prepare a FONSI. The FONSI is then published in the *Federal Register*. The public and other interested parties are provided an opportunity to review the FONSI (at least 1 day) before NRC approves the DP. The FONSI may be coupled with an opportunity to request a public

hearing, if such an opportunity has not already been provided in an earlier *Federal Register* notice.

If the EA indicates that the proposed action will have a significant impact on the quality of the human environment, the LR/PM shall prepare an EIS. The development of an EIS is described in 10 CFR 51.25 - 51.125. Appendix N discusses the development of an EIS in further detail. Prior to preparing the EIS, the LR/PM shall prepare a Notice of Intent (NOI) to prepare the EIS and publish the NOI in the *Federal Register*. The NOI also initiates the scoping phase of the EIS as described in 10 CFR Part 51. Scoping will include a public meeting held at night in the vicinity of the site to solicit oral comments on the proposed scope of the EIS and to explain the process. 10 CFR 2.1205(c)(1) requires that requests for hearings be made within 30 days of the *initial Federal Register* notice relating to the application or licensing action. At their discretion, NRC staff may also publish additional notices in the *Federal Register* relating to the licensing action or decommissioning.

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs all Federal agencies to develop strategies for considering environmental justice. NMSS Policy and Procedures Letter 1-50 (see Appendix O) provides guidance for addressing the issue of environmental justice in NEPA reviews, including all EISs and most EAs. The LR/PM should review this policy and procedures letter and ensure that environmental justice issues are adequately addressed in all EISs and significant EAs. The LR/PM should recommend to NRC management whether the EA under preparation is "significant" and, therefore, warrants consideration of environmental justice impacts.

17 Financial Assurance for Decommissioning

NRC regulations at 10 CFR 30.36(f)(4)(iv), 40.42(f)(4)(iv), and 70.38(f)(4)(iv) require that DPs¹⁸ contain "...an updated detailed cost estimate for decommissioning, comparison of that estimate with present funds set aside for decommissioning, and a plan for assuring the availability of adequate funds for completion of decommissioning." NRC regulations at 10 CFR 72.54(f)(5) also require independent spent fuel storage installations to provide this information along with information on a means to adjust cost estimates and funding levels over any storage or surveillance period. This information is typically presented to the NRC for review and approval in the license application or renewal as the Decommissioning Funding Plan (DFP) or Certification of Financial Assurance. Later the information is updated in the DP.

A certification of Financial Assurance is a statement by the licensee that a specified amount of funds have been obtained for decommissioning. The amount of funds is established in the NRC regulations and is summarized in Appendix H to Regulatory Guide 3.66 "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72."

A DFP outlines the work required to decommission a facility, provides a site-specific cost estimate for the decommissioning, and states that the funds necessary to complete the decommissioning have been obtained. In general, the cost estimate should provide for decommissioning the facility to allow unrestricted release. The estimate should assume the work will be performed by an independent third-party contractor and not take credit for salvage value or reduced taxes. However, for certain sites where the licensee provides a viable alternative approach, or alternative basis for the cost estimate, the DFP may be approved if the approach provides sufficient assurance of funding for decommissioning. Licensees may demonstrate financial assurance for decommissioning by one or more of the following mechanisms:

- Prepayment—a deposit by the licensee at the start of operation in a segregated account outside of the licensee's control. Prepayment mechanisms include trust funds, escrow accounts, certificates of deposits, and government securities.
- Surety, Insurance, or Parent Company Guarantee Method—assurance that the cost of decommissioning will be paid by another party should the licensee default on the responsibility to complete the decommissioning. In addition to insurance, surety

¹⁸NRC regulations at 10 CFR 30.35, 40.36, 70.25, and 72.30 discuss the requirements for certain licensees to develop decommissioning funding plans and financial assurance for decommissioning.

methods may include payment surety bonds, letters of credit, lines of credit, and parent company guarantees.

- External Sinking Fund—a sinking fund account plus insurance or surety mechanism such that the total of both at least equals the cost of decommissioning. A sinking fund is a segregated account outside of the licensee's control and any of the prepayment mechanisms may be used to hold the assets for the sinking fund account. Surety methods are described above.

In addition, Federal, State, or local government licensees may provide financial assurance for decommissioning with a statement of intent. A statement of intent is a statement from the appropriate government entity indicating that decommissioning funds will be obtained when necessary. Such statements need to state the estimated cost of decommissioning, as required in NRC regulations, as well as a demonstration that the party signing the statement has the authority to make such a statement on behalf of the government. In limited cases, a private licensee may rely on a government statement of intent if it is part of a binding contract between the government and the licensee. Licensees may also use the self-guarantee method provided they can meet the financial tests as described in Appendix B of 10 CFR Part 30.

The objective of NRC's financial assurance requirements is to ensure that a suitable mechanism for completing the decommissioning of licensed facilities is in place in the event that a licensee is unwilling or unable to complete the decommissioning. Current NRC guidance documents on the preparation of, and format and contents of, mechanisms for assuring funds for decommissioning, DFPs, and reviewing declarations of bankruptcy are summarized in Appendix P. In addition, Policy and Guidance Directive 90-2, Standard Review Plan for Evaluating Compliance with Decommissioning Requirements for Source, Byproduct, and Special Nuclear Material License Applications discusses the criteria for determining the adequacy of license applications for compliance with decommissioning requirements.

As part of the review of the DP, the LR/PM shall evaluate the cost estimate for decommissioning to determine if the estimate appears reasonable and is based on current labor rates and waste disposal costs. The LR/PM should then compare the licensee's estimate with the funds the licensee has set aside for decommissioning. The LR/PM should also review the licensee's plan for assuring the availability of adequate funds for completion of decommissioning to ensure that it is in compliance with NRC requirements. Regulatory Guide 3.66 contains several checklists that should be used to determine the adequacy of the licensee's financial assurance for decommissioning.

If the wording of the financial assurance instrument is **identical** to the recommended wording in Regulatory Guide 3.66, it is acceptable. If not, the instrument should be submitted to DWM for review as a non-standard financial assurance mechanism. If the LR/PM is unable to determine if the licensee has provided a reasonable cost estimate for decommissioning or complied with the NRC's requirements for financial assurance for decommissioning, the LR/PM should contact DWM to request assistance in reviewing the cost estimate and financial assurance mechanism.

If the licensee has provided adequate financial assurance for decommissioning, the LR/PM shall prepare a letter for signature of the license reviewer, Branch Chief level or higher, informing the licensee that the financial assurance for decommissioning is adequate. If the LR/PM determines that the licensee has not complied with NRC's requirements for financial assurance for decommissioning, the LR/PM shall prepare a deficiency letter for signature at the Branch Chief level or higher outlining these deficiencies and requiring the licensee to respond within a brief period (e.g., 30 to 60 days) to provide financial assurance. No existing financial assurance shall be canceled and returned to the licensee until adequate assurance has been received by NRC. It is important to maintain control and security of the financial instruments once received by NRC.

The LR/PM shall follow NRC Management Directive 8.12, "Decommissioning Financial Assurance Instrument Security Program," to ensure security and control of the instrument. In the event a licensee defaults before completing the decommissioning, the management directive specifies procedures for acting on the instrument. These are described in greater detail in Policy and Guidance Directive PG 8-11, "NMSS Procedures for Reviewing Declarations of Bankruptcy," on bankruptcy procedures. In the event of a bankruptcy, the LR/PM shall follow the procedures in the policy and guidance directive to attempt to ensure control of the radioactive material and maximum use of any remaining licensee resources for protection of the public.

18 Inspections During Decommissioning

IMC 2602, "Decommissioning Inspection Program for Fuel Cycle Facilities and Materials Licensees, describes the procedures for conducting inspections of licensed facilities undergoing decommissioning. All NRC personnel implementing the decommissioning inspection program shall use the guidance identified in MC-2602. Significant deviations from the guidance in MC-2602 shall be approved by NRC management as directed in MC-2605 before inspecting the licensed facility. Because MC-2602 fully discusses the decommissioning inspection program, the activities necessary to perform inspections of facilities undergoing decommissioning are not covered in this handbook.

More detailed inspection procedures, including field notes, are provided in Inspection Procedure 87104 for decommissioning materials facilities and Inspection Procedure 88104 for decommissioning fuel cycle facilities. All NRC staff responsible for inspecting decommissioning projects shall be qualified in accordance with IMC 1246 or accompanied by an individual who is qualified.

19 Final Status Surveys

Licenseses wishing to terminate their licenses must demonstrate to NRC that residual radioactive material at their facility attributable to past licensed operations does not exceed NRC criteria for release of the facility. To the extent that licensed material is commingled with elevated (i.e., above background levels) levels of NORM, the elevated NORM is also remediated in decommissioning. NRC regulations at 10 CFR 30.36(f)(4)(iv), 40.42(f)(4)(iv), 70.38(f)(4)(iv), and 72.54(f)(4) require that all DPs contain a description of the planned final radiation survey to demonstrate that the facility meets NRC's criteria for release and termination of the license. In addition, NUREG/CR-5849 provides detailed guidance on developing and conducting radiation surveys to demonstrate that facilities are suitable for release.

The final radiation survey plan is usually reviewed and approved by NRC as part of their review of the DP but may be reviewed separately, if the remediation of the facility is sufficiently complex that the licensee requests that submission of the final radiation survey plan be delayed. The delayed submission may be implemented by establishing an enforceable condition for the submittal of an acceptable plan by a specified date. However, segregation of the survey plan is not generally desirable and should be thoroughly considered before NRC approval. Although final radiation surveys must be tailored to meet the site-specific conditions at each facility, there are several concepts and issues that are common to all surveys and must be addressed in the survey plan. These concepts and a checklist for evaluating the Final Status Survey Plan (FSSP) and report are included in Appendix Q. In addition, Appendix C of NUREG/CR-5849 provides an example of an FSSP that may be used as a guide for evaluating the adequacy of the proposed FSSP. Note that NUREG/CR-5849 merely identifies one acceptable method of conducting the survey. Other approaches may be sufficient to demonstrate compliance with NRC requirements, as long as they provide the same level of assurance.

The LR/PM should review the FSSP to determine if it addresses all of the concepts and issues discussed in Appendix Q of these procedures as well as the information contained in Appendix C of NUREG/CR-5849. In addition, if the plan will require review by other specialists within NRC, the LR/PM shall arrange for their review. If the plan adequately describes the final status survey and report, the LR/PM shall inform the licensee of the results of the NRC review in writing along with the approval of the DP. If the final status survey plan is submitted independently from the DP, the LR/PM shall prepare a letter to the licensee for signature at the Branch Chief level or higher indicating that the plan is acceptable.

The results of final status surveys are documented in a detailed report that becomes part of the licensee's application to terminate the license. NRC regulations at 10 CFR 30.36(I)(2), 40.42(I)(2), 70.38(I)(2), and 72.54(k)(2) describe the information that must be submitted to the NRC to support a demonstration that a licensed facility is suitable for release from regulatory control. In addition, Appendix D of NUREG/CR-5849 contains an example of a final radiological status report that provides guidance on the acceptable format and content of this report. Appendix Q of these procedures may also be used as guidance in reviewing FSSRs.

20 Confirmatory Surveys¹⁹

After acceptance of the licensee's final survey report, the NRC may conduct a confirmatory survey. Inspection Procedure 83890 discusses the procedures to be followed to determine whether a confirmatory survey is required at a licensed facility. Inspection Procedure 83890 also summarizes the procedures to be followed to perform closeout inspections and confirmatory surveys. The confirmatory survey develops radiological data of the same type as that presented by the licensee but is usually limited in scope to spot-checking conditions at selected site locations, comparing findings with those of the licensee, and performing independent statistical evaluations of the data developed by the two surveys. The objective of the confirmatory survey is to verify the accuracy of the licensee's measurement technique. Only limited statistical information is developed to compare with the information submitted by the licensee. NRC uses the report of this survey in supporting a decision on the licensee's application to terminate a license and release the site. NRC's regulations do not include specific requirements for the confirmatory survey.

As discussed in the preceding sections, facilities decommissioned under Type III and Type IV will typically receive a confirmatory survey and a closeout inspection. NRC staff is implementing a more streamlined process that assigns higher priority for conducting confirmatory surveys at sites that may pose a greater potential threat to the public health and safety, if not remediated in accordance with NRC criteria or where NRC's confidence in the licensee's FSS is limited. SECY 95-209 identifies criteria that will be used to identify sites that require a more comprehensive confirmatory survey. This approach would allow the release of some facilities from regulatory control based solely on past operations and performance, the NRC's confidence that the facility was adequately remediated by the licensee, and a closeout inspection that does not indicate that additional issues remain unresolved at the facility.

If it is determined that a confirmatory survey will be performed by an NRC contractor at a licensed facility, the LR/PM shall contact DWM to arrange for the confirmatory survey. Appendix R contains copies of the Request for Technical Assistance (RFTA) forms that shall be completed by the LR/PM, as well as a list of items that should be addressed in completing the RFTA form. Each RFTA form should include a cost estimate for the survey work requested. The LR/PM and NRC management shall review the cost estimate and make a determination about its reasonableness. After the LR/PM completes the RFTA

¹⁹ Currently, most confirmatory surveys are conducted by the Oak Ridge Institute for Science and Education under contract to NRC. NRC staff is evaluating the merits of revising the manner in which confirmatory surveys are conducted, including greater reliance on in-house capabilities. The procedures discussed in this section will be revised, as appropriate, when the evaluation and subsequent actions are completed.

it should be forwarded to DWM, along with a copy of the SCP and FSSP. DWM will forward the RFTA, survey plan, and SCR to an outside laboratory for review and use in developing a confirmatory survey plan.

When the outside or NRC laboratory has developed a confirmatory survey plan, the LR/PM shall review the plan to determine if it will be adequate to confirm the licensee's FSS. When an outside laboratory is used to perform the confirmatory survey, and the confirmatory survey plan is acceptable, the LR/PM shall complete the Survey Plan Approval Form (SPAF) (see Appendix R) and forward the completed form to DWM. DWM will forward the signed SPAF to the outside laboratory and instruct the outside or NRC laboratory to contact the LR/PM to arrange for the confirmatory survey with the licensee. The LR/PM shall inform the licensee of the estimated cost of the confirmatory survey in advance of the survey. If the survey plan is not acceptable, the LR/PM shall contact the outside laboratory to resolve the issues associated with the proposed survey plan. When an NRC laboratory is used to conduct the confirmatory survey, the LR/PM will contact the NRC laboratory directly to discuss the adequacy of the confirmatory survey and to approve the survey plan.

The results of the confirmatory survey are documented in the Confirmatory Survey Report. This report is provided to the LR/PM in draft form for review and approval. If the confirmatory survey results indicate that the licensee's evaluation of the radiological status of the site is statistically valid and meets NRC's criteria, and NRC has determined that the FSS demonstrates that the site satisfies NRC requirements, the site is suitable for release from regulatory control. If the confirmatory survey results indicate that the licensee's evaluation is not statistically valid, additional remediation and resampling may be necessary. If this is the case, the LR/PM shall inform the licensee as soon as possible and determine what, if any, additional remediation and resampling are required.

21 Partial Facility Decommissioning

In most instances, a licensee will request termination of its license with the intent of releasing the entire site from regulatory control. However, in some instances, a licensee may request that only a portion of its facility be removed from the license. NRC requirements allow for partial facility decommissioning and release. 10 CFR 30.36(d) (1-4), 40.42(d)(1-4), 70.38(d)(1-4), and 72.54(d)(1-3) describe the conditions under which a licensed facility would be required to begin decommissioning operations that would also be applicable to those instances where a licensee ceases operations at a portion of its facility. 10 CFR 30.35(g), 40.36(f), 70.25(g), and 72.30(d) describe the requirements for the maintenance of records pertaining to decommissioning licensed facilities that would also apply to the decommissioning of a portion of a licensed facility. (Note that partial facility decommissioning would also be accomplished using the appropriate decommissioning type discussed in previous sections).

At facilities possessing broad scope licenses, radioactive material usage may be terminated and resumed at separate locations (e.g., individual laboratories within a building) at the facility numerous times during the active phase of the license. For this type of decommissioning, the licensee is not required to notify the NRC as described in 10 CFR 30.36(d) because the licensee has not decided to permanently cease principal activities at the entire site or in any separate building. Also, because of the broad nature of the license and the limited scope of the decommissioning, the licensee would most likely not be required to submit a decommissioning plan as described in 10 CFR 30.36(f)(1) and would not request an amendment to its license to describe this change in areas of use. As such, the licensee would only be required to maintain records of the decommissioning for review by the NRC per 10 CFR 30.35(g).

Broad scope licensees must be able to demonstrate to NRC that the decommissioning of separate locations was performed in a manner that was protective of public health and safety and resulted in a separate location that meets NRC's criteria for unrestricted use. To ensure that broad scope licensees have adequately decommissioned these separate locations, inspectors must perform a detailed review of the licensee's decommissioning records during each inspection and should consider performing confirmatory measurements in those separate facilities the licensee has released for unrestricted use.

Licensees with multiple locations of use listed on the license that are decommissioning only one or a few of their locations would decommission each location of use as if it were a separate facility. These licensees may combine the decommissioning of individual locations of use in order to control cost and expedite the decommissioning, as long as it is approved by NRC before beginning decommissioning operations. At the completion of

decommissioning operations and demonstrating that the site or facility meets the NRC's criteria for release, the NRC will issue an amendment to the license that removes the location(s) of use from the license.

Licensees with a single address or location of use incorporating multiple sites or buildings, such as a university with licensed material usage in several buildings, would be required to develop a DP for each area of use (if a DP were required), or if several areas were being decommissioned, a plan that incorporates the decommissioning of each of these areas into a single plan. In addition, the DP should address not only the decommissioning of each site, but the measures that will ensure that the decommissioned area does not become recontaminated in the future due to licensed activities. At the completion of decommissioning operations, the license will be amended to indicate that radioactive material use is no longer authorized in those locations that were decommissioned.

If only a portion of a licensed facility is being decommissioned, the DP should address the portion of the property that will be sold (or removed from the license) as a separate site. In addition, the DP should incorporate measures to ensure that the area being decommissioned is separated from the area that will remain as a controlled area. This may be accomplished by erecting a barrier, such as a fence, between the two portions of the site. The DP should address not only the decommissioning of the portion of the site, but the measures that will ensure that the decommissioned area does not become recontaminated by future licensed activities. At the completion of the decommissioning operations, the license will be amended to indicate that radioactive material use is no longer authorized in that portion of the facility that was decommissioned.

22 Formerly Licensed Sites

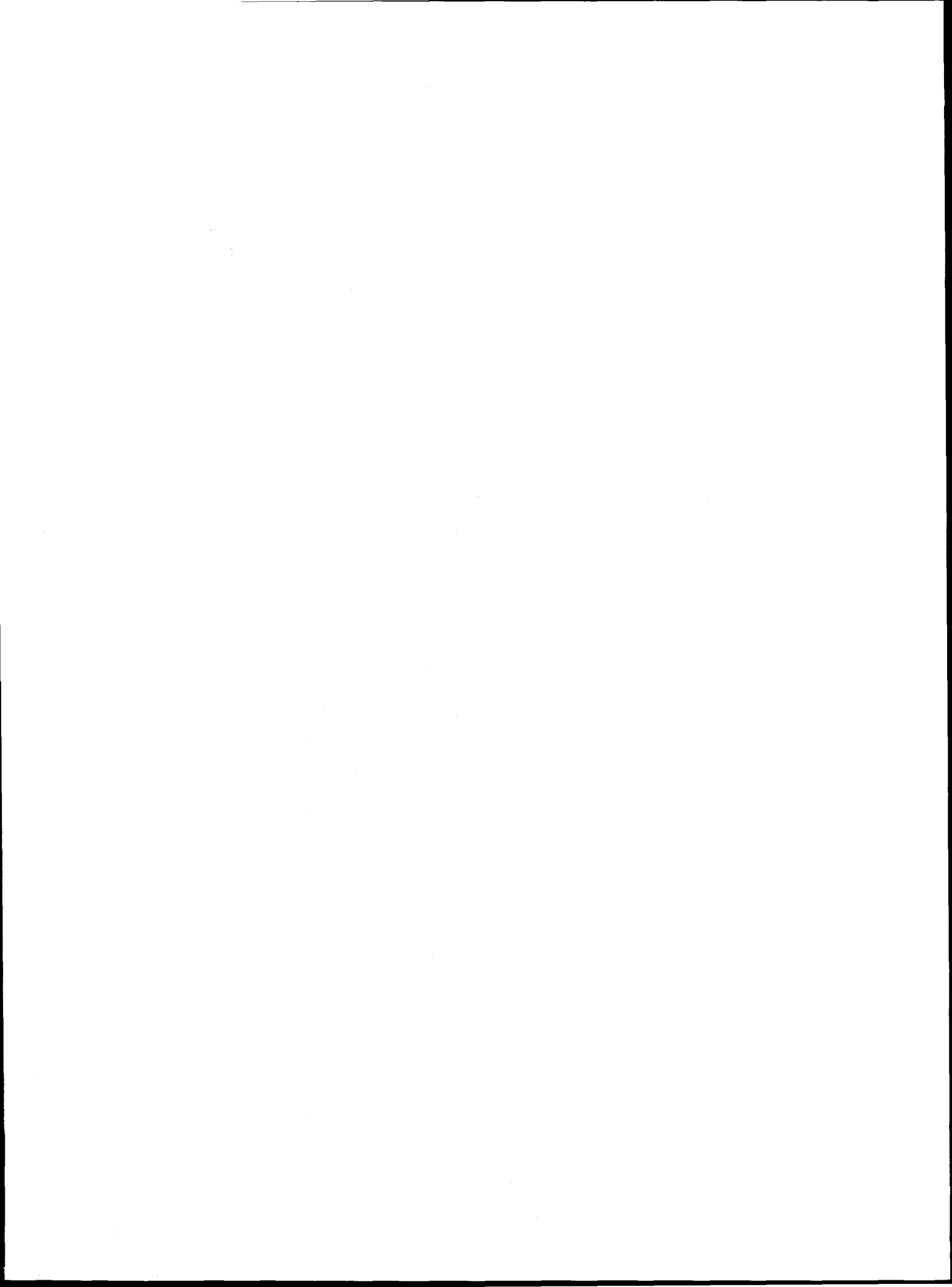
In February 1995, NRC issued Temporary Instruction (TI) 2800/026 that outlines the procedures the staff shall follow to verify the status of formerly licensed sites for which there is inadequate documentation in the docket file to demonstrate that they were properly decommissioned. The staff should refer to TI 2800/026 for guidance on the appropriate procedures to be followed to assess the status of formerly licensed sites.

The staff will consider formerly licensed sites in a two-step process. First, after determining that sufficient information is not available to determine whether a site does not contain elevated levels of residual contamination, the staff will conduct a preliminary assessment based on available information to determine whether additional characterization and remediation are necessary. Some sites may have such minimal levels of contamination that they do not pose a significant risk and do not warrant additional action. The LR/PM will document these findings in a letter to the current property owner and the former licensee.

Second, for sites that warrant additional characterization, and possibly remediation, the staff will perform additional hazards analysis to identify those sites that should receive prompt attention and higher NRC priority. The hazards analysis would be conducted based on available information (including scoping surveys) by comparing site conditions against the following priority criteria:

1. The site currently causes doses to members of the general public in excess of 50 millirem/year (Total Effective Dose Equivalent) or 50% of the NRC's public dose limit in 10 CFR 20.1301.
2. The site currently exhibits measurable migration of radiological contaminants to groundwater, surface water, soil, sediment, or other environmental media.
3. The responsible party lacks the financial and technical capability or management commitment to ensure security and control of the contaminated material.

Sites that meet any of these criteria would receive higher priority consideration for review.



***APPENDICES - NMSS DECOMMISSIONING
HANDBOOK***

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APPENDIX A

**NMSS Policy and Procedures Letter 1-41
"Decommissioning Rule Implementation"**

THE UNIVERSITY OF CHICAGO

PHILOSOPHY DEPARTMENT

PHILOSOPHY 101

LECTURE NOTES

PLATO

THE REPUBLIC

BOOK I

THE QUEST FOR JUSTICE

THE SOUL

THE CITY

THE PHILOSOPHER

THE WISE MAN

THE JUST MAN



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


OCT 13 1988

MEMORANDUM FOR: Division Directors, Deputy Directors,
Branch Chiefs, and Section Leaders
Office of Nuclear Material Safety
and Safeguards

FROM: Robert M. Bernero, Director
Office of Nuclear Material Safety
and Safeguards

SUBJECT: NUCLEAR MATERIAL SAFETY AND SAFEGUARDS (NMSS) POLICY AND
PROCEDURES LETTER 1-41, DECOMMISSIONING RULE IMPLEMENTATION

The enclosed NMSS Policy and Procedures Letter 1-41 establishes responsibilities and procedures for implementation of the NMSS decommissioning program. This guidance is consistent with, and made necessary by the Nuclear Regulatory Commission's (NRC's) final rule on decommissioning, published in the Federal Register on June 27, 1988 ("General Requirements for Decommissioning Nuclear Facilities"), and the recent transfer of regulatory responsibility for the decommissioning of nuclear power reactors from the Office of Nuclear Reactor Regulation (NRR) to NMSS. Additionally, this guidance is necessary to define the respective decommissioning roles and responsibilities, for non-reactor licensees, of the Industrial and Medical Nuclear Safety Division and the Low-Level Waste Management and Decommissioning Division.


Robert M. Bernero, Director
Office of Nuclear Material Safety
and Safeguards

Enclosure:
NMSS Policy and Procedures Letter 1-41

cc: Regional Administrators

NUCLEAR MATERIAL SAFETY AND SAFEGUARDS (NMSS)
POLICY AND PROCEDURES FOR IMPLEMENTATION
OF THE NMSS DECOMMISSIONING PROGRAM

I. Purpose

These procedures provide guidance for the NMSS staff carrying out NMSS decommissioning responsibilities. These responsibilities include: (1) implementation of the Site Decommissioning Management Plan (SDMP) (SECY-90-121); (2) implementation of the final rule on decommissioning, "General Requirements for Decommissioning Nuclear Facilities," published in the Federal Register June 27, 1988; and (3) execution of NMSS responsibilities for the regulation of nuclear power reactor decommissioning (see SECY-88-128, May 10, 1988). This policy and procedures letter does not address routine facility decontamination activities that have minimal environmental concerns, but might involve routine waste disposal (in terms of volume, waste form, or method of disposal). This procedure covers proposals for waste disposal by onsite burial, stabilization in place, or by means other than use of a 10 CFR Part 61 disposal facility (or equivalent).

II. Objective

The overall objective of the NMSS decommissioning program is to ensure that decommissioning activities adequately protect the health and safety of workers and the public, protect the environment, and are conducted in a timely and effective manner, consistent with all pertinent regulatory requirements.

III. Non-Reactor Facilities

A. Program Management

In general, overall responsibility for the decommissioning program that the U.S. Nuclear Regulatory Commission (NRC) conducts for NMSS licensed facilities rests with the Division of Low-Level Waste Management and Decommissioning (LLWM). This responsibility includes an oversight role, which helps provide information, to ensure that licensees, etc. are approaching similar problems the same way, and which helps identify program direction and guidance needs. LLWM will have lead responsibility, working with the Division of Industrial and Medical Nuclear Safety (IMNS) and other offices, for the evaluation of generic decommissioning issues and for the coordination of issue resolution. This aforementioned lead responsibility includes:

- developing decommissioning guidance;
- developing resource estimates for NMSS and regional work;
- assisting in inspections, as needed;
- tracking decommissioning status;
- coordinating with other divisions and offices, as needed, to identify necessary NRC actions;

- providing informational oversight of all facility onsite decommissioning activities;
- managing SDMP and associated commitments; and
- performing the regional program review for the decommissioning program.

Consistent with overall decommissioning program management responsibilities, LLWM will coordinate all guidance development for programs primarily addressing decommissioning. LLWM, in coordination with other NMSS divisions, will have lead responsibility for support of the Office of Nuclear Regulatory Research (RES) on regulation promulgation, regulatory guidance promulgation, and domestic or international standards-setting activities that primarily address the NRC decommissioning program. LLWM is responsible for providing technical guidance and assistance on groundwater contamination and site stability needed by the licensing and inspection staff to implement the NMSS and the Office of Nuclear Reactor Regulation (NRR) facility decommissioning programs, and for interacting with RES to obtain needed guidance and research support. These roles shall include development of guidance on policy, procedures, technical matters, and questions on interpretations of regulations and regulatory guidance documents. Guidance to the inspection staff is provided to the regions as changes to MC 2600 and MC 2800, and to the licensing staff as changes to FC Directives. LLWM will continue to be responsible for uranium and thorium mills and mill tailings, except for those cases specifically agreed on.

Lead NMSS responsibility assignments for other activities (such as 10 CFR Part 20 revision, for example), involving decommissioning in a peripheral fashion, are not affected by this policy and procedures letter.

IMNS is the lead division for guidance on safety aspects related to licensee operations. IMNS is technically responsible for providing guidance, standard review plans, inspection procedures, and other guidance directives, as appropriate, for non-reactor buildings and facilities, as well as for radiological closeout surveys.

LLWM, in coordination with IMNS, NRR, and the Technical Training Center (TTC), shall establish training and qualification requirements and programs to meet these requirements, in order to ensure that regional and Headquarters licensing and inspection staff are knowledgeable of decommissioning requirements and relevant guidance materials. LLWM will develop, with assistance from IMNS, guidance to the Office of Enforcement (OE), on enforcement of decommissioning matters.

B. Project Management and Licensing, Non-Reactor Facilities

After termination of operations at any facility, there needs to be a logical transition between the operational project management and

decommissioning activities. LLWM, with concurrence of IMNS, will develop and maintain a list of current decommissioning casework and assigned organizational responsibilities. For any specific facility or site, project management responsibility for facility/site decommissioning may change as a result of changes in the status of decommissioning actions (e.g., after cleaning highly enriched uranium (HEU) out of ducts and elsewhere, regulatory responsibility for the site may pass from IMNS to LLWM).

The project management and licensing responsibilities for the decommissioning of facilities covered under a materials license issued pursuant to 10 CFR Parts 30, 40, or 70 will continue as specified in the delegation and assignment letter to the Regional Administrators, dated October 6, 1987, with the exceptions that follow.

LLWM will, in a timely manner, assume project management and licensing responsibility for those facilities that have ceased operations and whose decommissioning activities will be carried out over a significant period of time (greater than approximately one year). Any known significant nuclear process safety problems, such as buildup of HEU in duct work, will be resolved before the facility is transferred from IMNS to LLWM for project management of general decommissioning activities, assuming no site contamination exists that is not below regulatory concern. This will be similar to the transition of reactor projects to a possession-only license, once fuel has been removed from the reactor.

With regard to licenses terminated after 1965, IMNS will be responsible for the review of the adequacy of the termination reviews and site surveys. IMNS will coordinate with LLWM on review criteria to be used. For those sites judged to need further review and surveys, LLWM will include those sites in the SDMP and will track progress on closure. IMNS will identify, for additional review, those sites for which it is known that there were onsite burials, and for which there is not a documented review of the disposal.

LLWM will generally have lead project management responsibility for site characterization or reclamation and stabilization programs at formerly licensed facilities/sites. For a formerly licensed facility or site where IMNS has historical responsibility (final regulatory position has been established and decommissioning has made substantial progress), IMNS will retain lead project management responsibility, unless the decommissioning is primarily a waste disposal action occurring over a period of time greater than approximately one year. Assignment of lead project management responsibility, for decommissioning activities at formerly licensed facilities and sites found to require followup action through coordination between LLWM and IMNS, will be determined on a case-by-case basis and reflected in the list of current decommissioning casework. Generally, for any facility or site

decommissioning activity that either is, or is evolving into, primarily a waste disposal action, LLWM will have project management, as well as technical review, responsibility.

IMNS, or the regions, depending on the type of facility, will have project management and licensing responsibility for those facilities that have continuing operations and are concurrently decommissioning a portion of their facility. The NMSS division or the region with lead project management responsibility for decommissioning will provide copies of all decommissioning-related documents to other involved or interested NMSS divisions and the responsible regional office, as appropriate.

IMNS is responsible for regulating Greater Than Class C (GTCC) sealed sources, until that point where the Department of Energy (DOE) takes possession of them. LLWM is responsible for ensuring that commercial GTCC sources and other GTCC wastes are tracked by DOE, so that the sources and other GTCC wastes are eventually disposed of at a licensed disposal facility.

C. Technical Support Roles and Responsibilities

LLWM will provide technical support, to IMNS and the regions, on groundwater or other environmental site-related issues. This LLWM technical support will be agreed to in writing on a case-by-case basis, and will normally relate to groundwater issues, site stability, cleanup criteria, and methods of disposal. Generally, disposal of radioactive waste at any time, including time of decommissioning, by burial onsite, stabilization in place, or by any means other than disposal in a Part 61 facility, will require a LLWM technical review. For those facilities with ongoing operations and decommissioning programs, where the submittal of a decommissioning plan is required, LLWM will review the plan in the role of providing technical support.

The regions and IMNS will coordinate with LLWM on all 10 CFR 20.302 burial requests, to assess the potential for groundwater impacts. When an IMNS or regional project-managed facility has site contamination, LLWM will provide technical support to IMNS or to the regions, to have expert technical review of actual or potential groundwater impacts. IMNS will provide technical support to LLWM or to the regions on health physics issues, as needed.

The regions have a key responsibility to provide information about current facility/site status and past events that have occurred at a given site, and to periodically conduct inspections in support of the Agency's total regulatory program.

IV. Responsibilities and Authorities, Power Reactors

LLWM shall be responsible for carrying out all aspects of the NMSS

decommissioning program for power reactors. This includes conducting licensing reviews of decommissioning plans and preliminary decommissioning plans, and preparing supporting environmental assessments (EAs) and safety evaluation reports (SERs). LLWM is responsible for the project management of power reactors, after approval of decommissioning plans, issuance of possession-only licenses, review of emergency plan modifications, and changes to technical specifications. In its project management role, LLWM will review and respond to routine licensee submittals, manage and provide oversight of the regional inspection program, establish needed NMSS licensing guidance, ensure the maintenance of appropriate agency records (e.g., docket files), and interact with NRR, OE, and RES, as needed.

V. Generic Reactor and Non-Reactor Responsibilities

A. Inspections

Inspections related to decommissioning will be conducted consistent with the current delegation of regulatory responsibility. The regions will normally perform inspections with assistance from NMSS, if necessary. The regions will continue to perform routine close-out surveys for those facilities under regional control and not on the list of current decommissioning casework for licensing action. If detailed site or building surveys are required, these may be conducted by the lead NMSS division responsible for the specific project or conducted by a technical assistance contractor under the technical direction of the responsible region or the NMSS division with project management responsibility. Project management responsibility for the technical assistance contractor, Oak Ridge Associate Universities (ORAU), performing radiological evaluations, as well as characterizations and surveys, is the responsibility of IMNS. IMNS will coordinate regional and LLWM use of this contractor.

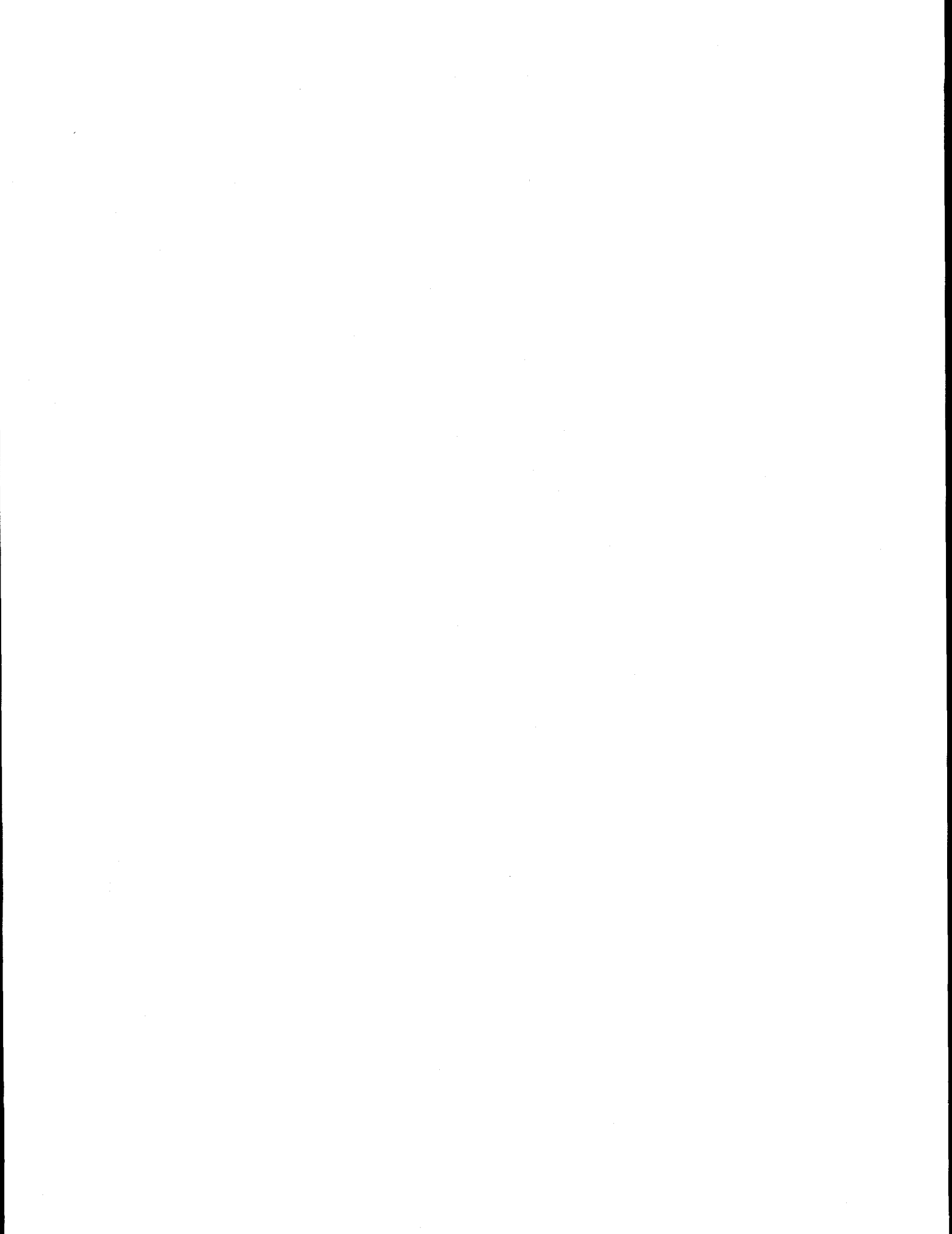
B. Regional Oversight and Annual Program Review

LLWM is responsible for providing oversight of regionalized licensing and inspection activities, in implementing the decommissioning program. This will be accomplished on an ongoing basis, as well as by participation with NRR and IMNS at the time of general national program review activities.

C. Interfaces

LLWM will establish and maintain a list of appropriate LLWM staff for regional and IMNS and NRR staff to contact for technical assistance on decommissioning projects and topics covered by this document. Regional questions and problems requiring new policy, technical, or legal determinations, or interpretation of the regulations, should be conveyed, in writing, to the Director, LLWM. All policy determinations shall be made in writing.

Interfaces with licensees and applicants shall be the responsibility of the project manager organizations, as described in Subsection III.B. Requests for technical information from licensees or other discussions with licensees will be closely coordinated with the project manager. External interfaces with industry groups and the public on decommissioning issues will be coordinated among IMNS, LLWM, NRR, and the regions. IMNS will continue to manage and maintain the licensee information and planning systems [i.e., Licensing Tracking System (LTS)] and will modify the system, as needed, to address decommissioning information needs.



APPENDIX B

List of NRC's Decommissioning Regulations and Guidance

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It is essential to ensure that all entries are supported by proper documentation, such as receipts and invoices.

3. Regular audits should be conducted to verify the accuracy of the records and to identify any discrepancies.

4. The second part of the document outlines the procedures for handling cash and other assets.

5. It is important to establish clear policies regarding the use of company funds and to ensure that all employees are aware of these policies.

6. The final part of the document provides a summary of the key points discussed and offers recommendations for further action.

7. It is hoped that these guidelines will help to improve the overall financial management of the organization.

NRC'S DECOMMISSIONING REGULATIONS AND GUIDANCE

Regulations

1. "General Requirements for Decommissioning Nuclear Facilities," *Federal Register*, Vol. 53, No. 123, June 27, 1988, pp. 24018-24056.
2. 10 CFR 30.4, "Definitions"
3. 10 CFR 30.32, "Application for Specific Licenses"
4. 10 CFR 30.35, "Financial Assurance and Recordkeeping for Decommissioning."
5. 10 CFR 30.36, "Expiration and Termination of Licenses."
6. 10 CFR 40.4, "Definitions"
7. 10 CFR 40.31, "Application for Specific Licenses"
8. 10 CFR 40.36, "Financial Assurance and Recordkeeping for Decommissioning."
9. 10 CFR 40.42, "Expiration and Termination of Licenses."
10. 10 CFR 50.75, "Reporting and Recordkeeping for Decommissioning Planning."
11. 10 CFR 50.82, "Application for Termination of License."
12. 10 CFR 70.4, "Definitions"
13. 10 CFR 70.22, "Contents of Applications"
14. 10 CFR 70.25, "Financial Assurance and Recordkeeping for Decommissioning."
15. 10 CFR 70.38, "Expiration and Termination of Licenses."
16. 10 CFR 72.3, "Definitions"
17. 10 CFR 72.44, "License Conditions"
18. 10 CFR 72.54, "Expiration and Termination of Licenses"
19. NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," August 1988.

20. "Timeliness in Decommissioning of Materials Facilities," *Federal Register*, Vol. 59, No. 135, July 15, 1994, pp. 36026-36040.
21. "Clarification of Decommissioning Funding Requirements," *Federal Register*, Vol. 60, No. 143, July 26, 1995, pp. 38235-38240.
22. 40 CFR Part 141, "National Primary Drinking Water Regulations."

Residual Contamination Criteria

1. Policy and Guidance Directive FC 83-23, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Byproduct, Source and Special Nuclear Material Licenses," November 1983.
2. "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, and Special Nuclear Material," August 1987.
3. Regulatory Guide 1.86, "Termination of Operating Licenses for Nuclear Reactors," June 1974.
4. "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations," *Federal Register*, Vol. 46, No. 205, October 23, 1981, pp. 52061-52062.
5. NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination," June 1992.
6. SECY-92-106, "Action Plan to Ensure Timely Remediation of Sites Listed in the Site Decommissioning Management Plan," March 24, 1992.
7. "Persons Exposed to Transuranium Elements in the Environment," *Federal Register*, Vol. 42, No. 230, November 30, 1977, pp. 60956-60959.
8. SECY-94-145, "Increase of Tritium and Iron-55 Unrestricted Use Limits for Surface Contamination at Shoreham and Fort St. Vrain," May 27, 1994.
9. Policy and Guidance Directive PG-8-08, "Scenarios for Assessing Potential Doses Associated with Residual Radioactivity," May 1994.
10. "Order Establishing Criteria and Schedules for Decommissioning the Bloomsburg Site," *Federal Register*, Vol. 57, No. 34, February 20, 1992, pp. 6136-6141.
11. NUREG-1500, "Working Draft Regulatory Guide on Release Criteria for Decommissioning: NRC Staff's Draft for Comment," August 1994.

12. NUREG/CR-5512, "Residual Radioactivity Contamination from Decommissioning," Volume 1, October 1992.
13. NUREG-1496, "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for Decommissioning of NRC-Licensed Nuclear Facilities," Volumes 1 and 2, August 1994.
14. NUREG-1501, "Background as a Residual Radioactivity Criterion for Decommissioning," August 1994.
15. NUREG-1506, "A Nonparametric Statistical Methodology for the Design and Analysis of Final Status Decommissioning Surveys," August 1995.
16. NUREG-1506, "Measurement Methods for Radiological Surveys in Support of New Decommissioning Criteria," August 1995.
17. NUREG-1507, "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions," August 1995.
18. NUREG/CR-6232, "Assessing the Environmental Availability of Uranium in Soils and Sediments."
19. NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination," Draft for Comment, June 1992.

Site Decommissioning Management Plan

1. SECY-90-121, "Site Decommissioning Management Program," March 29, 1990.
2. SECY-91-096, "Updated Report on Site Decommissioning Management Plan," April 12, 1991.
3. SECY-91-334, "Current Activities in Decommissioning of Materials Licensee Sites," October 22, 1991.
4. SECY-92-106, "Action Plan to Ensure Timely Remediation of Sites Listed in the Site Decommissioning Management Plan," March 24, 1992.
5. SECY-92-200, "Updated Report on Site Decommissioning Management Plan," May 29, 1992.
6. NUREG-1444, "Site Decommissioning Management Plan," October 1993.

7. SECY-93-179, "Updated Report on Site Decommissioning Management Plan," June 24, 1993.
8. SECY-94-213, "Update of Decommissioning Activities at Site Decommissioning Management Plan Sites," August 16, 1994.
9. SECY-95-209, "Policy and Program Issues at Site Decommissioning Management Plan Sites," August 11, 1995.
10. NUREG-1444, Supplement 1, "Site Decommissioning Management Plan."

Financial Assurance

1. Regulatory Guide 3.66, "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72," June 1990.
2. NUREG-1337 (Revision 1), "Standard Review Plan for the Review of Financial Assurance Mechanisms for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72," August 1989.
3. Policy and Guidance Directive FC 90-2, "Standard Review Plan for Evaluating Compliance with Decommissioning Requirements for Source, Byproduct, and Special Nuclear Material License Applications," April 1991.
4. NUREG/CR-1754, "Technology, Safety and Costs of Decommissioning Reference Non-Fuel-Cycle Nuclear Facilities," Addendum 1, October 1989.
5. NUREG/CR-0129, "Technology, Safety and Costs of Decommissioning a Reference Small Mixed Oxide Fuel Fabrication Plant," 1979.
6. NUREG/CR-1266, "Technology, Safety and Costs of Decommissioning a Reference Uranium Fuel Fabrication Plant," 1980.
7. NUREG/CR-1757, "Technology, Safety and Costs of Decommissioning a Reference Uranium Hexafluoride Conversion Plant," 1981.
8. NUREG/CR-2210, "Technology, Safety and Costs of Decommissioning a Reference Independent Spent Fuel Storage Installations," 1984.
9. NUREG/CR-2241, "Technology and Costs of Termination Surveys Associated with Decommissioning of Nuclear Facilities," 1982.
10. NUREG/CR-3293, "Technology, Safety and Costs of Decommissioning Reference Nuclear Fuel Cycle and Non Fuel Cycle Facilities Following Postulated Accidents," 1985.

11. NUREG/CR-5884, "Revised Analyses of Decommissioning for the Reference Pressurized Water Reactor Power Station," Volumes 1 and 2, October 1993.
12. NUREG/CR-6054, "Estimating Pressurized Water Reactor Decommissioning Costs," October 1993.
13. NUREG/CR-6174, "Revised Analyses of Decommissioning for the Reference Boiling Water Reactor Power Station," Volumes 1 and 2, September 1994.
14. NUREG/CR-6270, "Estimating Boiling Water Reactor Decommissioning Costs," December 1994.
15. NUREG-1307, "Report on Waste Burial Charges," Revision 5, August 1995.
16. Regulatory Guide 1.159, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors," August 1990.
17. NUREG/CR-6280, "Technology, Safety, and Costs of Decommissioning a Reference Large Irradiator and Reference Sealed Sources," January 1996.
18. NUREG-1337, Rev 1, "Standard Review Plan for the Review of Financial Assurance Mechanisms for Decommissioning under 10 CFR Parts 30, 40, 70 and 72," August 1989.
19. Management Directive 8.12 "Decommissioning Financial Assurance Instrument Security Program."
20. Policy and Guidance Directive PG 8-11 "NMSS Procedures for Reviewing Declarations of Bankruptcy."

Administrative

1. Regulatory Guide 3.65, "Standard Format and Content of Decommissioning Plans For Licensees Under 10 CFR Parts 30, 40, and 70," June 1989.
2. Policy and Guidance Directive FC 91-2, "Standard Review Plan: Evaluating Decommissioning Plans for Licensees Under 10 CFR Parts 30, 40, and 70," 1991.
3. Policy and Procedures Letter 1-46, "Procedures for Preparing *Federal Register* Notices for Site Decommissioning Management Plan Licensing Actions," April 1994.
4. Draft Technical Position on Site Characterization, November 1994.
5. RMG 93-03, "Final Criteria for Determining that Records Should be Retained Permanently Because of Significant Historical Value."

6. NMSS Policy and Procedures Letter 1-23, "Open Meetings," November 1994.
7. NMSS Policy and Procedures Letter 1-50, Revision 1, "Environmental Justice in NEPA Documents," April 1995.
8. NMSS Policy and Procedures Letter 1-48, "Procedures for Preparing Environmental Assessments," May 1995.
9. Manual Chapter 2602, "Decommissioning Inspection Program for Fuel Cycle Facilities and Materials Licensees."
10. Inspection Procedure 83890, "Closeout Inspection and Survey."
11. Inspection Procedure 88104, "Decommissioning Inspection Procedure for Fuel Cycle Facilities."
12. Inspection Procedure 87104, "Decommissioning Inspection Procedure for Materials Licensees."
13. SECY 90-316, "Decommissioning Records Plan, Records Management Guideline (RMG) 92-01, Plan for Decommissioning Records."

APPENDIX C

Interim Radiological Cleanup Criteria for Decommissioning

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A Summary of NRC's Interim Radiological
Cleanup Criteria and Current Dose Bases
Decommissioning and Regulatory Issues Branch,
U. S. Nuclear Regulatory Commission
November 1992

Implementation of residual contamination criteria is dependent on the establishment of acceptable dose or risk criteria for unrestricted use of nuclear facilities. The NRC has been using a patchwork of remediation criteria to define acceptable levels for cleanup of radioactive contamination. However, these criteria are not currently binding on licensees and are generally not consistent with one another or with comparable requirements being established and imposed by other agencies (e.g., Environmental Protection Agency (EPA)). In addition, the scientific basis for some of the criteria established in the 1970s and early 1980s is out of date. Further, some of the criteria are only indirectly related to the protection of the public health and safety and the environment.

In the mid-1980s, NRC staff initiated development of the technical basis to support a rulemaking to codify final cleanup standards for radiological contamination. This rulemaking was an outgrowth of the NRC's long-term effort to establish decommissioning requirements (53 FR 24018; June 27, 1988). However, the rulemaking to establish radiological criteria for decommissioning may not be completed for another two years or so, posing the problem of what criteria should the NRC use in the interim to determine whether sites have been sufficiently decontaminated so that they may be released for unrestricted use. In preparing this paper, the NRC staff identified the full range of existing cleanup criteria used by the NRC and estimated the doses associated with the criteria.

1.1 NRC Cleanup Criteria

NRC has developed or used the criteria in the following references coupled with the concept of maintaining exposures from residual radioactive material as low as is reasonably achievable (ALARA) for guiding the cleanup of contaminated soils, structures, and equipment for unrestricted use:

1. *Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, and Special Nuclear Material*, Policy and Guidance Directive FC 83-23, November 4, 1983; *Termination of Operating Licenses for Nuclear Reactors*, Regulatory Guide 1.86, June 1974 -- These two documents provide criteria in terms of fixed and removable contamination and acceptable radiation exposures associated with beta- and gamma-emitting surface contamination. The FC 83-23 guidance also provides acceptable volumetric concentrations of uranium, thorium, americium and plutonium in soil. The uranium and thorium criteria are identical to the option 1 position in the Branch Technical Position described in item 2. Regulatory Guide 1.86 has been combined with a 5 $\mu\text{R/hr}$ at 1 meter external dose criterion for ^{60}Co , ^{137}Cs , and ^{152}Eu that may exist in concrete, components, and structures at nuclear reactor research facilities, with an overall dose objective of 10 millirem/year (cf. Letter to Stanford University

from James R. Miller, Chief, Standardization and Special Projects Branch, Division of Licensing, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, April 21, 1982, Docket No. 50-141).

2. *Disposal or Onsite Storage of Thorium and Uranium Wastes from Past Operations*, Branch Technical Position, October 23, 1981, 46 *FR* 52061 -- This document provides acceptable activity concentrations of uranium and thorium (with and without decay products) in soil under a variety of conditions.
3. The Environmental Protection Agency's (EPA's) *Interim National Primary Drinking Water Regulations*, 40 CFR Part 141, July 9, 1976, 41 *FR* 38404 -- This EPA regulation provides maximum contaminant limits for radionuclides in public drinking water, which can be extended to apply as acceptable activity concentrations in groundwater and surface water (see FC 83-23). Drinking water standards have been established for radium-226/228, gross-alpha particle emissions, and man-made radionuclides emitting beta particles and photons. The Environmental Protection Agency recently (July 18, 1991) proposed adding standards for uranium and radon and revising the existing standards for radium and gross-alpha (56 *FR* 33050).
4. The EPA's *Persons Exposed to Transuranium Elements in the Environment*, November 30, 1977, 42 *FR* 60956 -- This document provides draft radiation dose guidelines recommended by EPA for acceptable levels of transuranium elements contamination in soil.

Doses Associated with Existing NRC Criteria
NMSS Policy and Guidance Directive FC 83-23

NMSS Policy and Guidance Directive FC 83-23 provides guidelines for acceptable average and maximum surface contamination levels for a wide variety of radionuclides. It also provides average and maximum radiation levels of 0.2 and 1.0 millirad per hour at 1 centimeter for beta- and gamma-emitters. In addition, the Directive provides an acceptable external radiation exposure rate for soil contamination of 10 microroentgen above background per hour at 1 meter. An enclosure to the Directive lists acceptable soil contamination levels based on the 1981 Branch Technical Position and includes concentration values for plutonium and americium compounds. For byproduct materials, the Directive states that acceptable soil concentration levels will be determined on a case-by-case basis. The criteria in FC 83-23 and their associated doses are summarized in Table 1. The right hand column indicates "dose bases" calculated using the computer code RESRAD that contains contemporary dosimetry and exposure assumptions.

Regulatory Guide 1.86

NRC issued Regulatory Guide 1.86 in 1974. This guide provides the same basis for the acceptable surface contamination levels described in Policy and Guidance Directive FC 83-23. When combined with an exposure rate limit of 5 μ R/hr above background at 1 meter, this guide has been used in decommissioning and terminating licenses for a number of research reactors. The 5 μ R/hr criterion for indoor contamination corresponds to an annual whole body dose of about 10 millirem for an assumed indoor occupancy period of 2000 hours per year. The 5 μ R/hr criterion has been applied to ^{60}Co , ^{137}Cs , and ^{152}Eu that may exist in concrete, components, and structures at nuclear reactor research facilities, with an overall dose objective of 10 millirem/year (cf. Letter to Stanford University from James R. Miller, Chief, Standardization and Special Projects Branch, Division of Licensing, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, April 21, 1982, Docket No. 50-141).

Table 1. Acceptable Contamination Criteria and Associated Dose Bases in NMSS Policy and Guidance Directive FC 83-23

<u>Contamination</u>	<u>Criterion</u>	<u>Estimated Stated Dose Basis+</u>	<u>Dose Basis (EDE)+</u>
Average, U-nat, ²³⁵ U, ²³⁸ U, and decay products	5000 dpm/100 cm ²	None	~13mrem/yr [#]
Average, ²²⁶ Ra, ²²⁸ Ra, transuranics, etc.	100 dpm/100 cm ²	None	~0.2mrem/yr [#]
Average Th-nat, ²³² Th, ⁹⁰ Sr, etc.	1000 dpm/100 cm ²	None	~28 mrem/yr [#]
Avg. and max. external beta-gamma dose	0.2-1 mrad/hr at 1 cm	None	~20 mrem/yr [*]
U-nat with decay products in soil	10 pCi/gm	~500 mrem/yr (based on 5 pCi ²²⁶ Ra per gram mrem/yr [@] standard in 40 CFR 192; lifetime risk of 0.02)	~2.4 to 260 mrem/yr [@] ~1.8 to 49
Depleted Uranium in soil	35 pCi/gm	1 mrad/yr (lung) 3 mrad/yr (bone)	~2.4 to 8 mrem/yr [@] ~1.8 to 18 mrem/yr [@]
Th-nat with decay products in soil	10 pCi/gm	35 mrem/yr	~35 to 82 mrem/yr [@]
Enriched Uranium in soil	30 pCi/gm	1 mrad/yr (lung) 3 mrad/yr (bone)	2.4 to 5 mrem/yr [@] ~1.8 to 16 mrem/yr [@]
²³⁹ Pu in soil	25 pCi/gm	None	~15 mrem/yr [@]
²⁴¹ Am in soil	30 pCi/gm	None	~19 to 325 mrem/yr ^{&}
External radiation	10 μR/hr at 1 meter above background	None	~24 mrem/yr [^]

+ Dose bases generally expressed in terms of potential dose to the maximum reasonably exposed individual.

Calculated using draft NUREG/CR-5512. FC 83-23 criteria are based more on technological capabilities (i.e., levels of detectability) than on an explicit dose basis.

* Estimate based on dose at 1 meter for 2000 hour occupancy.

@ Lower estimate represents conversion or repetition of stated dose basis, while upper estimate based on RESRAD calculation (default values used for input parameters).

& Based on RESRAD calculations without and with water pathways considered, respectively.

^ Estimate based on effective, unshielded occupancy of about 2360 hours for outside exposure.

Branch Technical Position (BTP) on Disposal or Storage of Thorium and Uranium Wastes

On October 20, 1981, NRC published this technical position (46 *FR* 52061) to provide guidance on decommissioning and cleanup of fuel cycle and other facilities contaminated with relatively large volumes of wastes with low activity concentrations of uranium and thorium. In combination with the disposal provisions in 10 CFR 20.302, the technical position provides four "options" for disposal of uranium and thorium wastes, which vary in activity concentration and corresponding potential radiological dose. As directed in the Commission's April 6, 1992, staff requirements memorandum, only the lower-activity concentration limits and disposal methods provided in Options 1 and 2 of the technical position can be applied as criteria for the release of a site for unrestricted use. Options 3 and 4 require deed restrictions that would be inconsistent with the Commission's regulations that require sites to be cleaned up so that they may be released for unrestricted use.

Under Option 1 of the Branch Technical Position, licensees may dispose of wastes containing natural thorium, depleted or enriched uranium, and natural uranium without restrictions for burial method or post-termination land use. The activity concentrations for this option are consistent with the levels identified in Policy and Guidance Directive FC 83-23. The maximum activity concentration for natural uranium is based on EPA standards for cleanup and stabilization of uranium mill tailings for ^{226}Ra (5 pCi/g) including its decay products (42 *FR* 2556-2563). The activity concentrations for natural thorium and depleted or enriched uranium are based on internal radiation dose guidelines recommended by EPA for protection against transuranium elements present in the environment as a result of unplanned contamination (42 *FR* 60956-60959). As shown in Table 1, committed doses were expected to be on the order of one millirad per year to the lung or three millirad per year to the bone from inhalation and ingestion. The resulting concentrations would also limit external exposures to less than 10 microroentgens per hour above background.

Under Option 2 of the 1981 BTP, concentrations of natural thorium and depleted or enriched uranium are required to be buried under prescribed conditions without requiring land use restrictions after license termination. Disposals performed under Option 2 guidelines must be covered by four feet or more of clean soil. Acceptable activity concentrations for burial were calculated based on the criteria that (1) radiation doses to members of the public should not exceed Option 1 levels when the waste is buried in an approved manner under routine exposure conditions, and (2) radiation doses to an inadvertent intruder should not exceed 170 millirems to a critical organ or whole body.

When applying Option 2 of the technical position, the staff evaluates the human intruder pathway. In addition, consistent with the technical position, groundwater considerations are also evaluated, when necessary, because of site specific hydrogeologic features and groundwater use. Dose from the ground water pathway should not exceed 3 mrad/yr to the bone (approximately 1.8 mrem/yr committed EDE) consistent with the stated dose basis for the Option 1 concentration values. Dose from the human intruder pathway should not exceed 170 mrem/yr to the critical

organ. For soluble uranium, the critical organ is the bone. For insoluble uranium, the critical organ is the lung. For thorium, both soluble and insoluble, the critical organ is the whole body.

The dose of 170 mrem/yr to the whole body, from Option 2 concentrations of thorium, via the human intruder pathway, may be unacceptably high. Further, this 170 mrem/yr whole body dose assumes a 0.8 occupancy factor and a 0.5 shielding factor. If the occupancy and shielding factors are set to 1, the dose from thorium may be as high as 420 mrem/yr to the whole body. Therefore, for thorium concentrations above the Option 1 limit, the 10 CFR 20 limit of 100 mrem/yr TEDE may be the appropriate unrestricted use release limit. The intruder exposure pathway could possibly be ignored when the disposal method makes the chance of future human access very remote, such as via deep disposal, or disposal by mine backfill.

Disposals under Option 2 that involve depleted or enriched uranium, are evaluated for buildup of decay products for a period of 1000 years. The original dose assessments to determine the Option 2 limits for depleted and enriched uranium did not include decay products because the decay products are removed in processing the uranium. Significant ingrowth of the decay products requires more than one thousand years and has not been routinely considered in assessing the acceptability of the disposals under Option 2 even though potential doses may increase considerably with time (i.e., beyond 10,000 years).

Table 2 lists the Option 2 concentrations along with their stated dose bases and estimated current dose bases calculated using the RESRAD computer code that contains contemporary dosimetry and exposure assumptions. It should be noted that the use of RESRAD and its default parameter assumptions may not be appropriate for specific regulatory decisions depending on site conditions and characteristics, which may render RESRAD estimates too conservative or non-conservative.

Table 2. Concentrations and Dose Bases for Option 2 of the 1981 Branch Technical Position (BTP).

<u>Contamination</u>	<u>Criterion</u>	<u>Stated Dose Basis</u>	<u>Estimated Dose Basis (EDE)</u>
Natural Thorium	50 pCi/gm	170 mrem/yr	170 - 420 mrem/ yr
Depleted Uranium	100 pCi/gm (soluble)	170 mrem/yr (bone)	5 - 50 mrem/yr
	300 pCi/gm (insoluble)	170 mrem/yr (lung)	20 - 68 mrem/yr
Enriched Uranium	100 pCi/gm (soluble)	170 mrem/yr (bone)	5 - 52 mrem/yr
	250 pCi/gm (insoluble)	170 mrem/yr (lung)	20 - 42 mrem/yr

EPA's National Primary Drinking Water Standards for Radionuclides

NRC staff has applied EPA's National Primary Drinking Water Standards on a case-by-case basis to the cleanup and decommissioning of contaminated sites to ensure adequate protection of groundwater and surface water resources. These standards could be applied as criteria for limiting radiation exposures via the ingestion pathway. This approach is explicitly recognized in NMSS Policy and Guidance Directive FC 83-23. EPA promulgated interim drinking water standards for radionuclides in 1976 at 40 CFR 141.15 and 141.16 for combined $^{226}\text{Ra}/^{228}\text{Ra}$ (5 pCi/l), gross-alpha particle activity (15 pCi/l, excluding radon and uranium), and beta particle and photon emitters (4 mrem/yr for "man-made" radionuclides). The standards are applicable to public drinking water systems and are enforced at the tap. Although they are not strictly applicable to the protection of groundwater and surface water resources, NRC and other agencies (including EPA and States) have applied these standards as objectives and guides for water resource protection. This extension of the applicability of the drinking water standards has been justified based on the paucity of other suitable criteria for water resource protection and on the health and technological feasibility basis of the drinking water standards. This approach is also consistent with EPA policy for groundwater protection. In recent years, EPA has actually adopted the drinking water standards for groundwater and surface water protection purposes at uranium mill tailings sites (40 CFR Part 192, Subparts D and E and proposed Subparts A - C). The dose associated with the standard for beta and photon emitters is 4 mrem/yr. Assuming ingestion of 2 liters of drinking water per day over a 50-year period, the dose associated with the 5 pCi/l standard for ^{226}Ra would be about 5 mrem/yr using the dose conversion factors provided in EPA's Federal Guidance Report No. 11. It is difficult to convert the 15 pCi/l standard for gross-alpha particle activity to dose because gross-alpha is a screening parameter for a variety of alpha-emitting radionuclides and the dose is a function of the energy and characteristics of the alpha decay and biological parameters for each radionuclide.

On July 18, 1991, EPA proposed an increase in the drinking water standard for radium from 5 pCi/l combined $^{226}\text{Ra}/^{228}\text{Ra}$ to 20 pCi/l for each radionuclide (56 FR 33050). EPA has also proposed in the same rulemaking new drinking water standards for uranium (20 ug/l or 30 pCi/l) and for radon-222 (300 pCi/l). The values of the beta/photon and gross-alpha standards would remain the same, except that the gross-alpha standard would now exclude alpha activity contributed by radium-226. NRC's October 16, 1991 comments to EPA on the proposed rulemaking raised significant concerns about the proposed revisions to the drinking water standards, including ambiguity associated with the documented risk and radiological dose assessments that support the proposed drinking water standards; the need for EPA to assess indirect impacts of the new drinking water standards caused by their applications to other program areas (e.g., decommissioning and waste management); and the need for guidance on how to apply the uranium standard in situations where the uranium has been depleted or enriched. Consequently, there is considerable uncertainty associated with the content of the proposed drinking water standards.



POLICY ISSUE (Information)

May 27, 1994

SECY-94-145

FOR: The Commissioners

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: INCREASE OF TRITIUM AND IRON-55 UNRESTRICTED USE LIMITS FOR
SURFACE CONTAMINATION AT SHOREHAM AND FORT ST. VRAIN

PURPOSE:

To inform the Commission of the staff's decision to increase certain unrestricted use limits for surface contamination on buildings, structures, and equipment for the decommissioning projects at Fort St. Vrain Nuclear Station (FSV) and Shoreham Nuclear Power Station (Shoreham). This increase applies only to fixed contamination from iron-55 (Fe-55) and tritium (H-3), and is a modification to one of the clean-up criteria that the Commission directed the staff to consider in the "Action Plan to Ensure Timely Cleanup of Site Decommissioning Plan Sites" (Action Plan) (i.e., Table 1 of Regulatory Guide 1.86 (RG 1.86))

SUMMARY:

Shoreham and FSV are currently decommissioning their facilities with the goal of releasing the buildings, equipment, and grounds for unrestricted use in the short term (i.e., the DECON option). The major radionuclide identified in contaminated structures and systems during the characterization of these facilities was cobalt-60 (Co-60). However, during the dismantling of the facilities, both licensees identified concrete containing unexpectedly high concentrations of H-3 and Fe-55 in areas subjected to neutron radiation during operations. Shoreham also identified Fe-55 in steel used as a liner for the bioshield concrete. The total (fixed plus removable) surface contamination

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SECY NOTE:

TO BE MADE PUBLICLY AVAILABLE IN 10 WORKING DAYS FROM THE DATE OF THIS PAPER.

Levels of H-3 and Fe-55 on the concrete and steel exceed the current unrestricted use limits. Smaller concentrations of europium-152 (Eu-152) and Co-60 have also been identified on the activated material. Shoreham estimates that compliance with the current surface contamination limits for the H-3 and Fe-55 in the activated material will require the shipment of up to 73 additional cubic meters (2600 cubic feet) of slightly contaminated concrete and steel, above that required to comply with the Co-60 and Eu-152 surface contamination limits alone, to a licensed low-level waste facility at a cost of up to \$1 million. FSV has estimated that compliance with the current surface contamination limits would require the removal and shipment of up to 260 additional cubic meters (9300 cubic feet) of activated concrete, at a cost of up to \$4.5 million. Both licensees submitted requests to increase the unrestricted use limits for H-3 and Fe-55 surface contamination based on their conclusions that the risks from H-3 and Fe-55 are very small, at the current limits, and that application of the current limits to the activated material at their facilities is not in accordance with the as low as is reasonably achievable (ALARA) principle.

The staff evaluated the risk from H-3 and Fe-55 surface contamination relative to the other radionuclides listed in RG 1.86. The risks from Fe-55 and H-3 surface contamination at their respective RG 1.86 limits were found to be lower than the average risk from the other nuclides by at least a factor of 400. The risks are lower because Fe-55 emits only low-energy X-rays and H-3 emits only low-energy beta radiation. A detailed discussion of the relative risks, and additional background information, is contained in the enclosure.

Based on the magnitude of the disparities between risks, the staff concluded that it would be ALARA to increase the surface contamination limits for H-3 and Fe-55 at FSV and Shoreham, and that the magnitude of the increase could be limited to ensure that the risks from H-3 and Fe-55 remain consistent with the risks from the other nuclides in RG 1.86. The staff contemplated raising the total average surface contamination limits for H-3 and Fe-55 from the current 5,000 dpm/100 cm² limit to 2,000,000 dpm/100 cm². At this level, the risk from Fe-55 would be equal to the average risk from the other nuclides in RG 1.86, and the risk from H-3 would be less than the average. However, in consideration of ALARA, the staff selected 200,000 dpm/100 cm² as the new total average surface contamination limit for H-3 and Fe-55 at FSV and Shoreham.

RG 1.86 also contains maximum limits that are 3 times the average limit. Accordingly, the maximum limit for total H-3 and Fe-55 surface contamination was raised by a factor of 3 to 600,000 dpm/100 cm².

The existing limits for removable H-3 and Fe-55 surface contamination were also evaluated. Increasing the removable contamination limits is not considered ALARA, since standard remediation techniques are capable of lowering removable contamination to levels below the current limit. Therefore, the removable limits for H-3 and Fe-55 will remain at the current level of 1000 dpm/100 cm².

The primary bases for the staff's decision to increase the surface contamination limits for H-3 and Fe-55 were 1) that the risk from the increased limits are consistent with the risk from other nuclides, and 2) ALARA. However, to provide additional information, dose assessments were performed assuming that contamination is present at the increased limits

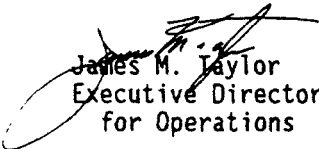
At 200,000 dpm/100 cm², the estimated doses from H-3 and Fe-55 surface contamination are 0.01 and 1.1 E-03 mSv (1.0 and 0.11 mrem)/y, respectively. These potential doses will decline as Fe-55 and H-3 decay with half-lives of 2.6 years and 12.2 years, respectively.

The above calculations assume that the dose from the activated concrete is from the inhalation and ingestion of material resuspended or removed from contaminated surfaces, which are considered the most probable exposure pathways. Although considered unlikely, the staff also estimated the potential dose assuming that the activated concrete is removed from the buildings and disposed without restrictions. For this case, the groundwater pathway, and the other exposure pathways in the residential farmer scenario, were evaluated. The resulting potential doses from the unrestricted disposal of the material at Shoreham and FSV were estimated as 0.012 mSv/y (1.2 mrem/y) and 0.019 mSv/y (1.9 mrem/y), respectively. These modeled doses decline rapidly with time following the maximum due to the conservative assumption that all of the H-3 is leached in the first year. For example, the fourth and sixth year doses at both facilities are less than 5E-03 and 2E-04 mSv/y (0.5 and 0.02 mrem/y), respectively.

The modified Fe-55 and H-3 limits discussed in this paper are based on ALARA considerations specific to the FSV and Shoreham decommissioning projects. However, volumetric contamination of activated materials at decommissioning power reactors is a generic issue and the staff anticipates that other decommissioning reactors will make similar requests for exceptions to RG 1.86 for H-3 and Fe-55, and that such requests would likely be approved. This issue should be addressed generically in the guidance developed to implement the rulemaking on Radiological Criteria for Decommissioning. This guidance would supersede or modify RG 1.86. The staff expects to notify Shoreham and FSV that the limits have been increased no later than June 3, 1994. This early date is associated with the time required to remove and ship low-level waste, if necessary, to Barnwell prior to the June 30, 1994, deadline. A meeting with the Commission assistants to discuss this matter would be useful.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection.


James M. Taylor
Executive Director
for Operations

Enclosure:
As stated

The Commissioners

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ADDITIONAL BACKGROUND AND TECHNICAL INFORMATION

In the Action Plan, the Commission directed the staff to consider existing guidance, and ALARA, when determining a site's suitability for unrestricted use pending the final rule on "Radiological Criteria for Decommissioning." Table 1 of RG 1.86, which contains surface contamination limits for buildings, structures, and equipment, was listed in the Action Plan as one of the existing criteria to consider. Accordingly, the staff approved the limits in RG 1.86 as the unrestricted use criteria for surface contamination at FSV and Shoreham.

The experience, to date, in applying the RG 1.86 surface contamination limits as unrestricted use criteria has been positive. In general, the limits are practical and ALARA, and have been applied by Nuclear Regulatory Commission licensees undertaking decommissioning. However, on December 23, 1993, the Public Service Company of Colorado (PSC) requested that NRC increase the surface contamination limits for Fe-55 and H-3 at FSV. The Fe-55 and H-3 contamination identified at FSV resulted from neutron activation and is primarily located in the concrete comprising the former prestressed concrete reactor vessel. PSC contends that the surface contamination limits for these two nuclides should be increased since: 1) the potential health and safety risk from these nuclides is very low; 2) the relative risk from these nuclides is very low compared to the other nuclides of concern at FSV, predominantly Co-60 and Eu-152; and 3) compliance with existing limits for these nuclides would cost an additional \$4.5 million above the cost required to comply with the surface contamination limits for Co-60 and Eu-152.

In addition, on April 22, 1994, Shoreham requested that NRC consider revising the release criteria for Fe-55 and H-3 because of the recent identification of concrete and steel, from the biological shield, that contains elevated levels of H-3 and Fe-55 as a result of neutron activation. Shoreham asserts that applying the current unrestricted release criteria for Fe-55 and H-3 would cost up to \$1 million without appreciable decrease in potential risk to public health and safety, and that Fe-55 and H-3 pose significantly lower risk than other nuclides in RG 1.86.

In response to the FSV and Shoreham requests, the staff reviewed the technical bases for Table 1 of RG 1.86 to determine if the limits for H-3 and Fe-55 are inconsistent with the other nuclides in Table 1. The RG 1.86 limits were developed using a semi-quantitative evaluation of relative risk based on the maximum permissible concentrations (MPC) for air and water listed in 10 CFR Part 20. The starting assumption in developing the limits was that licensees should not be expected to lower surface contamination below the existing environmental background levels caused by fallout from the atmospheric testing of nuclear devices. The predominant radionuclide found in the environment as a result of atmospheric testing is strontium-90 (Sr-90); the background level of Sr-90 was about 1000 dpm/100 cm² in 1974, when RG 1.86 was published.

The surface contamination limits in Table 1 of RG 1.86 were selected using the 1000 dpm/100 cm² environmental background level for Sr-90 as the baseline. Using the ratio of Sr-90 MPC's to the MPC's for the various nuclides as a measure of relative risk, the RG 1.86 surface contamination limits were generally set at one of three levels, i.e., 100, 1000, or 5000 dpm/100 cm². The upper limit of 5000 dpm/100cm² was set, in part, to limit direct radiation and, in part, as a level that seemed readily attainable. Note that the direct radiation exposure from both Fe-55 and H-3 is essentially zero. The ability to measure the contamination using standard industry instrumentation and methods was also considered in setting the RG 1.86 limits.

The developers of RG 1.86 were aware that disparities existed between the risks from the various nuclides at their respective RG 1.86 limits, but issued the guide as a matter of practicality, realizing that a method for more closely estimating the risk from surface contamination would not be accepted as a consensus in the near term. Before the FSV and Shoreham cases, there has not been a compelling reason to evaluate more closely the magnitude of the disparities. Note that the inconsistencies in RG 1.86 are being addressed generically in the rulemaking on "Radiological Criteria for Decommissioning."

To determine if the RG 1.86 limits for H-3 and Fe-55, i.e., 5000 dpm/100 cm², pose relative risks that are significantly lower than other nuclides, the staff evaluated the risk from each of the nuclides specifically listed in RG 1.86, as well as Co-60, Cs-137, Eu-152, C-14, Ni-59, Ni-63, H-3, and Fe-55. The risk from each nuclide was estimated by multiplying the RG 1.86 limit by the nuclide specific dose factors for surface contamination developed for the building occupancy scenario in NUREG/CR-5512, "Residual Radioactive Contamination from Decommissioning," October 1992. For example, the NUREG/CR-5512 dose factor for Sr-90 surface contamination is 1.51E-05 mSv/y (1.51E-03 mrem/y) per dpm/100 cm² and the RG 1.86 surface contamination limit for Sr-90 is 1000 dpm/100cm². Multiplying these two values results in a dose of 1.51E-02 mSv(1.51 mrem)/y. Note that the NUREG/CR-5512 dose factors are currently the staff's best estimate of dose from surface contamination. These dose factors were developed to support the ongoing rulemaking on "Radiological Criteria for Decommissioning."

The estimated doses for the 24 nuclides evaluated range from about 0.8 mSv/y (80 mrem)/y for uranium to about 2E-05 mSv (2E-03 mrem)/y for I-133. The resulting doses for Co-60, Fe-55, and H-3 are 0.14, 2.5E-04, 2.8E-05 mSv (14, 2.5E-02, and 2.8E-03 mrem)/y, respectively. The average dose for the 24 nuclides evaluated was about 0.1 mSv (10 mrem)/y.

Comparing the relative risks from Co-60 to both Fe-55 and H-3, it is seen that the risk from Co-60, at the RG 1.86 limit, is 5000 times greater than the risk from H-3 and 560 times greater than the risk from Fe-55. Because of the magnitude of these differences, and the estimated cost of compliance with the existing limits at FSV and Shoreham, the staff believes that it is appropriate to consider the surface contamination limits for H-3 and Fe-55 separately.

To determine the total surface contamination limits, the staff considered the average dose from the 24 nuclides at their respective RG 1.86 limits, and ALARA. In addition, to maintain simplicity in implementation, the limits for both H-3

and Fe-55 were both set at equivalent levels, using the dose from Fe-55 as the basis. This results in a more conservative dose for H-3. The estimated average dose from nuclides at the RG 1.86 limits, as evaluated above, is 0.1 mSv (10 mrem)/y, which translates to a limit of 2,000,000 dpm/100 cm². In consideration of ALARA, the limit finally selected for total surface contamination from Fe-55 and H-3 at FSV and Shoreham was 200,000 dpm/100 cm². At 200,000 dpm/100 cm², the estimated Fe-55 and H-3 doses are 0.01 and 1.1 E-03 mSv (1.0 and 0.11 mrem)/y, respectively. These potential doses will decline as Fe-55 and H-3 decay with half-lives of 2.6 years and 12.2 years, respectively.

The 200,000 dpm/100 cm² limit discussed above applies to average contamination levels. RG 1.86 also contains maximum limits that are 3 times the average limit. Accordingly, the maximum limit for H-3 and Fe-55 total surface contamination was raised to 600,000 dpm/100 cm².

The existing limits for removable H-3 and Fe-55 surface contamination were also evaluated. Increasing the removable contamination limits is not considered ALARA since standard remediation techniques are capable of lowering removable contamination to levels below the current limit. Therefore, the removable limits for H-3 and Fe-55 will remain at the current level of 1000 dpm/100 cm².

The above dose calculations assume that the exposure from the activated concrete is through the inhalation and ingestion of material resuspended or removed from contaminated surfaces, which are considered the most probable dose pathways. However, although considered unlikely, the staff also evaluated the potential dose assuming that the activated concrete is removed from the buildings and disposed without restrictions. The potential dose was estimated using the RESRAD environmental pathway and dose assessment code (ANL/EAD/LD-2). The resulting dose is considered conservative since, 1) the activity in the concrete and steel was assumed to be immediately available for uptake by plants and animals, and 2) all of the H-3 is assumed to leach from the concrete in the first year and migrate to groundwater. The resulting maximum potential doses from groundwater, plus the other exposure pathways in the residential farmer scenario, at Shoreham and FSV are 0.012 mSv/y (1.2 mrem/y) and 0.019 mSv/y (1.9 mrem/y), respectively. The modeled dose declines rapidly with time following the maximum due to the conservative assumption that all of the H-3 is leached in the first year. For example, the fourth and sixth year doses at both facilities are less than 5E-03 and 2E-04 mSv/y (0.5 and 0.02 mrem/y), respectively.



*United States
Nuclear Regulatory Commission*

Policy and Guidance Directive PG-8-08
**Scenarios for Assessing Potential Doses
Associated with Residual Radioactivity**

*Division of Waste Management
Office of Nuclear Material Safety and Safeguards*

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Policy and Guidance Directive PG-9-081:
Scenarios for Assessing Potential Doses
Associated with Residual Radioactivity

Introduction

NRC defines "decommission" in 10 CFR Parts 30, 40, and 70 as "to remove (as a facility) safely from service and *reduce residual radioactivity to a level that permits* release of the property for unrestricted use and termination of license" [emphasis added; see §§30.4, 40.4, and 70.4]. Currently, NRC is using criteria from existing guidance documents to determine the adequacy of site decommissioning actions until new radiological criteria for decommissioning are established through NRC's Enhanced Participatory Rulemaking. This rulemaking should be completed by May 1995. In the interim, licensees should decommission facilities in accordance with concentration criteria established in existing NRC guidance documents with emphasis on achieving residual contamination levels that are as low as is reasonably achievable (ALARA). Documents listing the existing criteria are identified in the Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites (57 FR 13389; April 16, 1992) and in Table 1.

In some situations, however, criteria have not already been established for radionuclides that may be present as volume contamination specifically in soils at licensed nuclear facilities and other sites with significant contamination. In other situations, a licensee may attempt to justify alternate criteria (above or below existing criteria) on the basis of ALARA considerations or site-specific conditions. The NRC staff commonly evaluates the acceptability of residual contamination levels in such situations by considering potential doses to individuals from exposure to the contamination. The objective of these evaluations is to ensure that residual contamination has been sufficiently reduced to satisfy the definition of "decommission" in NRC's requirements before the license is terminated and the site is released for unrestricted use.

This Policy and Guidance Directive has been developed to foster consistency in the exposure scenarios used for NRC dose assessments associated with residual radioactivity for decommissioning. In addition, by describing standard scenarios to be considered in such dose assessments, the Directive also seeks to ensure that the dose assessments are sufficiently protective of potential future residents that may be exposed to residual radioactive contamination after termination of the license and release of the site for unrestricted use.

The NRC staff anticipates that alternative exposure scenarios may be appropriate based on site-specific factors that affect the likelihood and extent of potential future exposure to residual radioactive contamination. For example, exposure scenarios for certain sites may exclude exposures via agricultural pathways, if agricultural land uses are clearly incompatible with existing and anticipated future conditions at the sites. As another example, exposures via ingestion of contaminated groundwater may be discounted if the affected groundwater is of such poor quality as to preclude human consumption.

Table 1. Interim Cleanup Criteria*

1. Options 1 and 2 of the Branch Technical Position *Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations*, (46 FR 52601; October 23, 1981).¹
2. *Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material*, Policy and Guidance Directive FC 83-23, Division of Industrial and Medical Nuclear Safety, November 4, 1983 (as revised in 1987).²
3. *Termination of Operating Licenses for Nuclear Reactors*, Regulatory Guide 1.86, June 1974, Table 1, for surface contamination of reactor facility structures and components.³ Also ⁶⁰Co, ¹³⁷Cs, and ¹⁵²Eu that may exist in concrete, components, and structures should be removed so the indoor exposure rate is less than 5 microrentgen per hour above natural background at 1 meter, with an overall dose objective of less than 10 millirem per year (cf. Letter to Stanford University from James R. Miller, Chief, Standardization and Special Projects Branch, Division of Licensing, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, April 21, 1982, Docket No. 50-141).⁴
4. The Environmental Protection Agency's (EPA's) *Interim Primary Drinking Water Regulations*, 40 CFR Part 141 (41 FR 38404; July 9, 1976).⁵ In accordance with FC 83-23, the maximum contaminant levels for radionuclides in public drinking water as established by EPA should be used as reference standards for protection of groundwater and surface water resources.
5. EPA's *Persons Exposed to Transuranium Elements in the Environment* (42 FR 60956, November 30, 1977).⁶ This document provides guidelines for acceptable levels of transuranic elements in soil.

*These criteria will be applied on a site-specific basis with emphasis on keeping residual contamination levels as low as is reasonably achievable (ALARA).

Exposure Scenarios

In evaluating potential doses from residual radioactivity, the NRC staff typically assesses the acceptability of the doses by constructing a source-term & exposure scenario and executing a computer model or analytical solution that simulates the release and transport of radionuclides and radiation in the environment. These assessments are performed on a site-specific basis and reflect differences in the characteristics of the residual radioactivity (e.g., nature, types, extent, and concentrations of radioactive contaminants) and of the environment (e.g., soil, surface water, groundwater, and air at the site). Unless there is a compelling reason to exclude specific exposure pathways based on these characteristics, a uniform set of exposure scenarios should be considered in evaluating whether residual radioactivity has been sufficiently reduced in accordance with NRC regulations.

Extensive environmental pathway modeling since the 1970s has demonstrated that a combination of several exposure pathways generally bound potential doses to potential future residents from residual radioactivity. For example, NRC's 1982 Generic Environmental Impact Statement in support of the low-level radioactive waste disposal requirements in 10 CFR Part 61 identified several scenarios that were considered conservative representations of how potential future residents could be exposed to radioactive materials, including the intruder-farmer, intruder-construction, and intruder-discovery scenarios (cf. *Final Environmental Impact Statement on 10 CFR Part 61, Licensing Requirements for Land Disposal of Radioactive Waste*, NUREG-0945, November 1982)⁷. These scenarios have evolved since then and are applied widely by NRC, the Department of Energy, the Environmental Protection Agency, State agencies, industry, and academia in evaluating the health risks associated with both radiological and non-radiological contamination^{8, 9, 10, 11, 12, 13, 14}.

Based on this experience, NRC has developed a comprehensive methodology for translating residual radioactive contamination levels into doses in NUREG/CR-5512¹⁰. The methodology presented in NUREG/CR-5512 includes four primary exposure scenarios:

- (1) Building Renovation Scenario (surface contamination),
- (2) Building Occupancy Scenario (surface contamination),
- (3) Drinking Water Scenario (Groundwater Contamination), and
- (4) Residential Scenario (volume contamination).

Although the methodology has been developed to estimate doses from residual radioactive contamination for each of these scenarios, computer codes and alternative calculational tools have only been developed to estimate doses to potential residents from volume contamination (i.e., where the radioactive materials are dispersed throughout material such as soil or concrete).

Computer codes are not currently available to estimate doses from surface contamination (rather than volume contamination). NRC anticipates completion of a computer code, entitled D&D SCREEN, that will assess doses from both surface and volume contamination based on the methodology presented in NUREG/CR-5512 by early 1995. Until enhanced computational capabilities are available to assess doses associated with surface contamination, the surface contamination limits in Table 1 of NRC Regulatory Guide 1.86 or Policy and Guidance Directive FC 83-23 will be employed to appropriately constrain residual radioactive contamination on surfaces and structures^{3,4}.

In addition, the exposure scenarios and calculational methodology described in NUREG/CR-5512 are intended to be applied for screening purposes to determine whether more detailed analyses must be performed. The foreword to NUREG/CR-5512 states that the intent of the scenarios contained therein is to account for the vast majority of potential uses of lands and structures and to overestimate the most probable annual dose while discounting a small fraction of highly unlikely uses that would result in higher doses. NUREG/CR-5512 also recognizes that customized, site-specific modeling may be necessary to evaluate and optimize radiation protection measures and determine whether residual radioactivity levels are ALARA. The scenarios described in this Policy Directive are intended to guide these more customized analyses.

Source Term

The common source term is assumed to be an uncovered contaminated soil zone of typically cylindrical shape. The radionuclide contaminants are assumed to be homogeneously distributed within the contaminated zone. The contaminated soil is assumed to be underlain by an uncontaminated unsaturated zone and a saturated zone. The starting point of radionuclide releases is the contaminated (soil) zone. Radionuclides are assumed to be released from the soil by surface erosion activities (e.g., wind, resuspension), plant uptake, direct ingestion, gaseous emanation (e.g., radon emanation), infiltration, and leaching. In addition, potential future resident could be exposed to direct gamma radiation emitted by radiological constituents. Contaminants may also be transported to groundwater through combined activities of water infiltration, leaching, and dispersion.

Standard Scenarios

Considering the above source-term, the following exposure scenarios should be analyzed in determining potential doses associated with residual radioactivity (volume contamination):

- (A) Direct exposure to external radiation and inhalation of airborne radioactive material from contaminated soil to onsite worker,
- (B) Direct exposure to external radiation, and inhalation and ingestion of airborne radioactive material to onsite resident who works off-site,

and

- (C) Direct exposure to external radiation and inhalation and ingestion of radioactive material to an individual who lives on the site, ingests groundwater produced from beneath the site, and ingests food grown on site.

These exposure scenarios can be readily assessed using commonly available computer codes, such as the RESRAD code¹¹. The RESRAD computer code is currently one of several codes used by the NRC staff to independently confirm estimated doses associated with residual radioactive contamination. Specific aspects of the scenarios depart from the residential scenario described in NUREG/CR-5512 based on specific features of the RESRAD code. For example, Scenario C is based on the assumption that the onsite resident withdraws groundwater from a well located at the downgradient edge of the contaminated area. This can be simulated using the Non-Dispersive option of the RESRAD computer code. In contrast, the methodology described in NUREG/CR-5512 assumes that the well is located in the middle of the contaminated area, which is analogous to the mass balance option of the RESRAD code. It should be pointed out that for small sites (e.g., contaminated surface area <1000 m²), the mass balance option may be appropriately selected.

Another example of a difference between the scenarios considered in NUREG/CR-5512 and those described below is that the scenarios in this Directive consider exposure to radon and its decay products in indoor and outdoor air. The RESRAD computer code (versions 5.0 and higher) assesses potential exposures to radon and its decay products in indoor and outdoor air¹⁵. Sources of the radon considered by RESRAD include soil, well water, and building materials. RESRAD estimates indoor air concentrations based on the diffusion equation, assuming that advection is negligible and the flux of radon into the building occurs at steady-state. An indoor air exchange rate of 1/hour is typically assumed. In contrast, the methodology presented in NUREG/CR-5512 does not consider doses from exposure to radon produced via the decay of residual radioactive contamination (principally from the decay of ²²⁶Ra and ²²⁴Ra in the uranium and thorium decay chains).

The differences between the scenarios described in this Policy and Guidance Directive and those described in NUREG/CR-5512, with the exception of the doses from inhalation of radon, are not expected to result in significant disparities in estimated doses.

The exposure pathways for Scenarios A-C are summarized in Table 2. Scenario A is intended to represent typical exposures associated with the use of a contaminated site for light industrial purposes. Scenario B is intended to represent a homeowner, who spends most of the time onsite, but works at an offsite location. Scenario C represents the reasonable maximally exposed resident farmer, who resides, works, grows crops, and raises livestock onsite. Scenario C is the closest scenario to the residential scenario described in

NUREG/CR-5512¹⁰.

Table 2. Summary of Exposure Pathways for Scenarios A - C

Pathway	Scenario A	Scenario B	Scenario C
External Exposure	Yes	Yes	Yes
Inhalation (Resuspension)	Yes	Yes	Yes
Radon Inhalation	Yes	Yes	Yes
Ingestion of Ground Water	No	Yes	Yes
Ingestion of Vegetables	No	Yes	Yes
Ingestion of Meat	No	No	Yes
Ingestion of Milk	No	No	Yes
Ingestion of Aquatic Food	No	No	Yes
Ingestion of Soil	No	Yes	Yes

In all three scenarios, except for radon diffusion, no credit has been given to shielding or containment provided by covers in reducing potential exposures to onsite residents. The scenarios allow limited credit for subflooring and foundations in estimating radon diffusion rates into a structure. Earthen covers placed over contaminated material may be effective in reducing exposures for some time by preventing resuspension of contamination, shielding gamma radiation, isolating plant roots from contaminated soil, and inhibiting or limiting infiltration into contaminated areas. Nevertheless, under the unrestricted use scenarios, it is conceivable that an individual would disrupt the earthen cover and expose contaminated material at the land surface. For example, construction of a home could include excavation of a foundation and distribution of contaminated soil at the land surface. Plants could then be grown in the contaminated soil resulting in uptake by the individual who consumes the vegetables, grains, or fruits. In addition, exposing the contaminated soil at the surface may cause resuspension of the contaminated material into the air onsite. Further, exposure of the contaminated material at the land surface would result in direct exposure from gamma radiation and increase the susceptibility of the material to leaching and transport through the unsaturated zone and into groundwater beneath the site.

The NRC staff will estimate potential doses associated with these exposure scenarios for up to 1000 years after completion of the decommissioning. Ingrowth of decay products of uranium, thorium, and other radionuclides with long half-lives will not be considered beyond 1000 years because of the large uncertainties associated with future conditions.

Scenario A - Worker

Scenario A is designed to represent typical exposures to a worker on site. The residence time at the site is limited to 2000 hours (23% of time) per year (8 hours/day x 5 days/week x 50 weeks/year). Approximately 20% of that time (400 hours; 4% of the year) is spent outdoors on the site. The individual does not drink water from onsite or produce food for his or her personal consumption. This scenario assumes that the worker does not consume any plant foods, milk, meat, aquatic food, or water from the site. The scenario does not account for potential dilution of the contaminated soil or structures that may occur during construction or renovation of a facility to prepare for commercial use of the site.

In estimating the exposure to workers, the source term is assumed to be a contaminated zone beneath the building which extends outdoors where the worker spends 20% of available time. The walls, floor, and foundation of the building are assumed to reduce external exposure by 33%. The indoor dust level is assumed to be 50% of the dust level that exists outside the building. If the residual radioactive contamination decays to form radon (i.e., uranium or thorium decay chains), the scenario includes doses from indoor and outdoor radon exposure using conventional assumptions, as described above, about the construction and air-exchange characteristics of the structure.

Scenario B - Resident

Scenario B represents a typical residential exposure scenario for a homeowner who spends most of the time onsite. Consequently, the residence times for this scenario are considerably longer than those for Scenario A. These longer residence times probably increase estimated doses greater than would be typically expected because most people spend more than 25% of their time away from home. In addition to the exposure pathways given in Scenario A, this resident also ingests drinking water, produced from a groundwater well onsite, as well as food (e.g., vegetables, grain, and fruits), grown at garden onsite to supplement the diet.

The exposed resident is assumed to spend 40% of the time indoors on the site, 10% outdoors on the site, and 50% away from the site. As in Scenario A, the walls, floor, and foundation of the house reduce external exposure by 33% and the indoor dust level is assumed to be 50% of the outdoor dust level in air. The resident obtains drinking water from a well installed at the site boundary immediately downgradient from the contaminated area and uses this water to irrigate a small vegetable garden on site. The scenario assumes that the house garden produces 25% of the resident's annual vegetable, grain, and fruit diet. The resident does not consume any meat, milk, or aquatic food produced on site. If the residual radioactive contamination decays to form radon (i.e., uranium or thorium decay chains), the scenario includes doses from indoor and outdoor radon exposure using conventional assumptions about the construction and air-exchange characteristics of the structure.

Scenario C - Resident Farmer

Scenario C is intended to represent the maximum reasonably exposed individual. Because the scenario is based on "prudently conservative" assumptions that tend to overestimate potential doses, use of this scenario should result in estimated doses that will be greater than the exposure to future residents most of the time. In comparison to Scenario B, the individual in Scenario C spends much longer time outside the residence, grows and ingests a larger percentage of vegetables from the onsite garden, consumes meat and milk produced onsite, and consumes aquatic food from a neighboring pond near the site.

The resident spends 55% of the time indoors on site, 21% outdoors on site (5 hours per day for 365 days) and 24% of the time away from the site. The gardening is assumed to occur in the contaminated area. A maximum of 50% of the resident's vegetable, grain, and fruit diet is assumed to be produced from the garden. The maximum fraction of contaminated diet (50%) could be reduced if the contaminated area is less than 1,000 m². Certain codes (e.g., RESRAD) assume that the fraction of contaminated diet could vary from 50% to 0% as the contaminated area decreases from 1000 to 0 m². The fraction of the diet should be decreased linearly in proportion to the size of the contaminated area. This scenario also assumes that all of the resident's milk and 50% of the meat diet are produced on site. This diet fraction (meat and milk) may vary as a function of the contaminated area of the site. Dust levels in outdoor air in the vicinity of the garden are representative for earth moving areas because of tilling, planting, harvesting, and other activities that may increase suspension of soil particles in the air.

Vegetables, fruits, and grains are irrigated with water drawn from a well at the site boundary, immediately downgradient of the contaminated area. Well water is also used to water the livestock on site. All of the resident's drinking water is produced from the well on site. No surface water is assumed to occur on site except for a pond (or lake) which contains aquatic food for the residential consumption. As with other food products, the fraction of aquatic food onsite varies in a linear proportion with the contaminated area.

The walls, foundation, and floor of the resident's house reduce external exposure by 33%. Indoor dust levels in air are assumed to be 50% of the outdoor dust level. If the residual radioactive contamination decays to form radon (i.e., uranium or thorium decay chains), the scenario includes doses from indoor and outdoor radon exposure using conventional assumptions about the construction and air-exchange characteristics of the residence.

Table 3 presents a summary of major parameters, for each of the above three scenarios, corresponding to residence times, fractions of food and diets from site, dust loading and shielding factors, and other specific exposure pathways.

Table 3. Summary of Major Scenario Parameters for Scenarios A - C

Parameter	Scenario A	Scenario B	Scenario C
Time Indoors	18%	40%	55%
Time Outdoors	5%	10%	21%
Time Off-Site	77%	50%	24%
Vegetable From Site	NO	25%	50%*
Fruit From Site	NO	25%	50%*
Grain From Site	NO	25%	50%*
Milk From Site	NO	NO	100%*
Meat From Site	NO	NO	50%*
Surface Water	NO	NO	NO
Aquatic Food	NO	NO	50%*
Drinking Water	NO	100%	100%
Indoor Dust Loading	50%	50%	50%
Indoor Shielding factor	33%	33%	33%
Radon	YES	YES	YES

* The fraction of diet will change with area of contaminated zone.

Application of the Scenarios

NRC staff should consider the projected doses for each of the three scenarios in decisions on the adequacy of decommissioning actions. In many decommissioning reviews, the criteria in the guidance documents listed in Table 1, other than the 1981 Branch Technical Position¹ (BTP) criteria, will be applied in a straightforward manner by comparing residual concentrations with the concentration criteria, using the procedures described in NUREG/CR-5849¹⁶. In these cases, there is no need to estimate doses using the scenarios described in this Policy and Guidance Directive. However, when projected doses are considered in lieu of or in addition to the established concentration criteria, NRC staff should review the licensee's estimated doses and develop independent estimates of the doses for Scenarios A - C.

Dose estimates are necessary in support of applying the 1981 BTP¹ criteria other than the Option 1 criteria or evaluating site-specific ALARA analyses. When BTP Option 2 criteria are applied, the potential doses should be estimated as a part of the analysis

and evaluation of environmental and waste disposal characteristics, in accordance with 10 CFR 20.2002. This would include, for example, consideration of potential doses via groundwater transport and exposure.

The intent of using the three scenarios is to establish a range of doses to potential future residents or occupants at a former nuclear facility after the license has been terminated and the site has been released for unrestricted use. The three scenarios depict a reasonable range of combinations of potential exposure pathways. The scenarios are based on the expectation that for most industrial sites, future use of the property will continue to be for industrial purposes. Thus, Scenario A may represent the most probable exposure scenario at industrial sites in most instances. However, given that former industrial sites have sometimes been converted back to residential uses, Scenario B represents a more conservative scenario that depicts typical exposures to potential residents, most of whom will work off site. Scenario C provides a reasonable upper estimate of the doses to potential future residents, who not only live on the site, but also produce a large proportion of their food (fruits, vegetables, grains, meat, and milk) on site and consume groundwater from the site.

Where the applicant or licensee has proposed that residual concentrations of radioactive materials will be ALARA, the staff should consider the combination of the three dose estimates in evaluating the merits of the proposal. The range of dose estimates provide a measure of the uncertainties associated with the decision and allow weighing of various factors in the ALARA analysis. For example, if the existing and projected future uses of the site are most likely industrial based on a variety of factors described below, the NRC staff may place greater emphasis on the dose estimates for Scenario A. Alternatively, if there is no particular reason to believe that industrial use of the site is highly unlikely, the staff should place more weight on considering doses for Scenario B and C in reviewing the ALARA analysis.

Scenario Parameters

Default physical and statistical parameter values for Scenarios A-C are listed in Appendix A. These values are essentially the default parameter values used in either the RESRAD code and NUREG/CR-5512¹⁰. They have been modified slightly to reflect the occupancy times and specific exposure pathways as discussed above and to be generally consistent with the default parameter values selected for the resident and water use scenarios described in

NUREG/CR-5512¹⁰. Appendix B compares the default parameter values for the RESRAD code with the values described in NUREG/CR-5512 for the residential scenario. Staff should use the default parameters listed in Appendix A, unless alternative values are justified based on site-specific information. For example, use of site-specific values is preferable for parameters such as the hydraulic conductivity of the saturated zone and the thickness of the unsaturated zone. The NRC staff should also use the sensitivity analysis feature of the RESRAD code (or other codes) to determine the sensitivity of the projected doses to reasonable variations in the input parameters (e.g., thickness of contaminated zone, thickness of unsaturated zone, depth of well intake).

ALARA Considerations

If the calculated doses associated with the scenarios listed above are deemed to be unacceptable in comparison to the radiation protection limits for members of the public in 10 CFR Part 20, the staff will consider the following factors in assessing whether the proposed residual radioactivity levels are ALARA:

- Existing and projected future land uses at the site and in the immediate vicinity of the site (e.g., 1 km);
- Environmental characteristics that may substantially attenuate the transport of the radionuclide(s) or reduce the probability of human exposure to residual radioactive contamination;
- Potential dilution of the residual radioactive contamination by the processes that disturb the material and result in human exposure to the contamination;
- Classification of groundwater beneath and downgradient from the site in accordance with Comprehensive State Ground Water Protection Programs reviewed by the Environmental Protection Agency;
- Existence of durable institutional controls and engineered barriers that may prevent or significantly reduce the probability of human exposure to residual radioactive contamination (e.g., restrictive covenants, deed restrictions, zoning controls, drilling restrictions, and erosion protection);
- Environmental impacts associated with performing

additional remediation to further reduce contamination levels;

- Radiological and non-radiological risks to workers associated with remedial actions to reduce contamination levels;
- Radiological and non-radiological risks to members of the public associated with remediation actions to reduce contamination levels;
- Limitations of technologies for removing and measuring residual contamination;
- Incremental remediation costs and the associated risk from such activities; and
- Other relevant societal and socioeconomic considerations

ALARA evaluations of these factors may involve unique and controversial policy issues. The staff may need to consult with the Commission about these considerations and their application on a case-by-case basis. The time frame for such considerations will not exceed 1,000 years into the future.

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14. U.S. Environmental Protection Agency, *Risk Assessment Guidance for Superfund: Volume 1, Human Health Evaluation Manual (Part A)*, EPA/540/1-89/002, December 1989.
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19. Sheppard, M. I., and D. H. Thibault, "Default Soil Solid/Liquid Partition Coefficients, K_{ds} , for Four Major Soil Types: A Compendium," *Health Physics*, v. 59, pp. 471-482.

Appendix A: Default Physical and Statistical Parameter Values for Scenarios A, B, and C for Dose Assessments for Residual Radioactivity

Parameter	Scenario A	Scenario B	Scenario C	Unit
Cover density	NU**	NU	NU	g/cm ³
Contaminated zone density	1.63	1.63	1.63	g/cm ³
Unsaturated zone density	1.63	1.63	1.63	g/cm ³
Saturated zone density	1.63	1.63	1.63	g/cm ³
Foundation density	2.4	2.4	2.4	g/cm ³
Cover porosity	NU	NU	NU	-
Contaminated zone porosity	0.3	0.3	0.3	-
Unsaturated zone porosity	0.3	0.3	0.3	-
Saturated zone porosity	0.3	0.3	0.3	-
Foundation porosity	0.1	0.1	0.1	-
Contaminated zone effective porosity	0.2	0.2	0.2	-
Saturated zone effective porosity	0.2	0.2	0.2	-
Unsaturated zone effective porosity	0.2	0.2	0.2	-
Contaminated zone hydraulic conductivity	NU	10	10	m/yr
Unsaturated zone hydraulic conductivity	NU	10	10	m/yr
Saturated zone hydraulic conductivity	NU	100	100	m/yr
Cover Volumetric Water Content	NU	NU	NU	-
Foundation Volumetric Water Content	0.03	0.03	0.03	-
Cover Radon Diffusion Coefficient (effective)	NU	NU	NU	m ² /s
Contaminated Zone Radon Diffusion Coefficient	2 x 10 ⁴	2 x 10 ⁴	2 x 10 ⁴	m ² /s
Foundation Radon Diffusion Coefficient	3 x 10 ⁷	3 x 10 ⁷	3 x 10 ⁷	m ² /s

**Not Used in Analysis

Appendix A: Continued

Parameter	Scenario A	Scenario B	Scenario C	Unit
Radon Emanation Coefficient	0.35 ^{***}	0.35	0.35	-
Precipitation Rate	NU	1	1	m/yr
Runoff Coefficient	NU	0.2	0.2	-
Irrigation Rate	NU	0.76	0.76	m/yr
Evapotranspiration Coefficient	NU	0.5	0.5	-
Cover Erosion Rate	NU	NU	NU	m/yr
Contaminated Zone Erosion Rate	0.001	0.001	0.001	m/yr
Hydraulic Gradient	NU	0.02	0.02	-
Length of Contaminated Zone in Flow Direction	NU	100	100	m
Watershed Area	NU	1 x 10 ⁶	1 x 10 ⁶	m ²
Water Table Drop Rate	NU	0	0	m/yr
Well Intake Depth	NU	10	10	m
Radon Vertical Mixing Dimension	2	2	2	m
Average Annual Wind Speed	2	2	2	m/s
Average Air Exchange Rate	0.5	0.5	0.5	1/hr
Building Room Height	2.5	2.5	2.5	m
Unsaturated zone thickness (Uncontaminated)	1	1	1	m
Foundation Thickness	0.15	0.15	0.15	m
Foundation Depth Below Ground	1	1	1	m
Fraction of Indoor Time	0.18	0.40	0.55	-

***Based on NRC Regulatory Guide 3.64¹⁸

Appendix A: Continued

Parameter	Scenario A	Scenario B	Scenario C	Unit
Fraction of Outdoor Time	0.05	0.10	0.21	-
Area of Contaminated Zone	Variable	Variable	Variable	m ²
Cover Thickness	NU	NU	NU	m
Distribution Coefficients	Variable****	Variable	Variable	cm ² /h
Livestock Fodder Rate for Meat	NU	NU	68	kg/d
Livestock Fodder Rate for Milk	NU	NU	55	kg/d
Air-Mass Loading Factor	2 x 10 ⁴	2 x 10 ⁴	2 x 10 ⁴	g/m ³
Milk Consumption	NU	NU	100	l/yr
Shielding Factor for Inhalation	0.50	0.50	0.50	-
Root Depth	NU	0.9	0.9	m
Soil Ingestion Rate	NU	10.0	18.25	g/yr
Contaminated Zone Thickness	2	2	2	m
Dilution Length for Airborne Dust	3	3	3	m
Fruit, Vegetable, and Grain Consumption Rate	NU	83	166	kg/yr
Inhalation Rate	10512	10512	10512	m ³ /yr
Leafy Vegetable Ingestion Rate	NU	6	11	kg/yr
Livestock Water Intake Rate	NU	NU	50	l/d
Livestock Water Intake Rate	NU	NU	160	l/d
Shielding Factor for External Gamma	0.33	0.33	0.33	-
Drinking Water Intake Rate	NU	730	730	l/yr

**** See generally the distribution coefficients provided in Sheppard and Thibault (1990)¹⁹.

Appendix A: Continued

Parameter	Scenario A	Scenario B	Scenario C	Unit
Fraction of Drinking Water from Site	0	1	1	-
Mass Loading from Foliar Deposition	NU	1×10^4	1×10^4	g/m ²
Depth of Soil Mixing Layer	NU	0.15	0.15	m
Drinking Water Fraction from Groundwater	0	1	1	-
Livestock Water Fraction from Groundwater	NU	NU	1	-
Irrigation Water Fraction from Groundwater	NU	1	1	-

Appendix B: Comparison between Default Parameter Values for the RESRAD Code and the Methodology in NUREG/CR-5512

Parameter	RESRAD ¹	NUREG/CR-5512 ²	LD-9301	Unit
Cover density	1.5	NU	NU ¹	g/cm ³
Contaminated zone density	1.5	1.63	1.63	g/cm ³
Unsatuated zone density	1.5	1.63	1.63	g/cm ³
Saturated zone density	1.5	1.63	1.63	g/cm ³
Foundation density	2.4	NU	2.4	g/cm ³
Cover porosity	0.4	NU	NU	-
Contaminated zone porosity	0.4	0.3	0.3	-
Unsatuated zone porosity	0.4	0.3	0.3	-
Saturated zone porosity	0.4	0.3	0.3	-
Foundation porosity	0.1	-	0.1	-
Contaminated zone effective porosity	0.2	-	0.2	-
Saturated zone effective porosity	0.2	-	0.2	-
Unsatuated zone effective porosity	0.2	-	0.2	-
Contaminated zone hydraulic conductivity	10	-	10	m/yr
Unsatuated zone hydraulic conductivity	10	-	10	m/yr
Saturated zone hydraulic conductivity	100	-	100	m/yr
Cover Volumetric Water Content	0.05	-	0.05	-
Foundation Volumetric Water Content	0.03	-	0.03	-
Cover Radon Diffusion Coefficient (eff)	2 x 10 ⁴	-	2 x 10 ⁴	m ² /s
Contaminated Zone Radon Diffusion Coefficient	2 x 10 ⁴	-	2 x 10 ⁴	m ² /s
Foundation Radon Diffusion Coefficient	3 x 10 ⁷	-	3 x 10 ⁷	m ² /s

Appendix B: Continued

Parameter	RESRAD	NUREG/CR-5512	LD-93-01	Unit
Radon Emanation Coefficient	0.25	-	0.35	-
Precipitation Rate	1	0.18*	1	m/yr
Runoff Coefficient	0.2	-	0.2	-
Irrigation Rate	0.2	0.76	0.76	m/yr
Evapotranspiration Coefficient	0.5	-	0.5	-
Cover Erosion Rate	0.001	-	0.001	m/yr
Contaminated Zone Erosion Rate	0.001	-	0.001	m/yr
Hydraulic Gradient	0.02	-	0.02	-
Length of Contaminated Zone in Flow Direction	100	-	100	m
Watershed Area	1 x 10 ⁶	-	1 x 10 ⁶	m ²
Water Table Drop Rate	0.001	-	0.001	m/yr
Well Intake Depth	10	-	10	m
Radon Vertical Mixing Dimension	2	-	2	m
Average Annual Wind Speed	2	-	2	m/s
Average Air Exchange Rate	0.5	-	0.5	1/hr
Building Room Height	2.5	-	2.5	m
Unsaturated zone thickness (Uncont.)	4	1	1	m
Foundation Thickness	0.15	-	0.15	m
Foundation Depth Below Ground	1	-	1	m
Fraction of Indoor Time	0.5	0.55	0.50	-

* This value is the infiltration rate selected in NUREG/CR-5512

Appendix B: Continued

Parameter	RESRAD	NUREG/CR-5512	LD-93-01	Unit
Fraction of Outdoor Time	0.25	0.21	0.21	-
Area of Contaminated Zone	10,000	2500	Variable	m ²
Cover Thickness	0	0	0	m
Distribution Coefficients	Variable	Variable	Variable	cm ³ /g
Livestock Fodder Rate for Meat	68	44	68*	kg/d
Livestock Fodder Rate for Milk	55	67	55*	kg/d
Air Mass-Loading Factor	2 x 10 ⁴	1 x 10 ⁴	1 x 10 ⁴	g/m ³
Milk Consumption	92	100	100	l/yr
Shielding Factor for Inhalation	0.4	0.5	0.5	-
Root Depth	0.9	-	-	m
Soil Ingestion Rate	36.5	18.25	18.25	g/yr
Contaminated Zone Thickness	2	-	2	m
Dilution Length for Airborne Dust	3	-	3	m
Fruit, Vegetable, and Grain Consumption Rate	160	166	166*	kg/yr
Inhalation Rate	8400	10512	10512	m ³ /yr
Leafy Vegetable Ingestion Rate	14	11	11	kg/yr
Livestock Water Intake Rate - Meat	50	50	50	l/d
Livestock Water Intake Rate - Milk	160	60	160	l/d
Shielding Factor for External Gamma	0.7	0.33	0.33	-
Drinking Water Intake R	510	730	730	l/yr

* Assuming an area of $\geq 10,000$ m²

Appendix B: Continued

Parameter	RESRAD	NUREG/CR-5512	LD-93-01	Unit
Fraction of Drinking Water from Site	1	.1	1	-
Mass Loading for Foliar Deposition	1×10^4	0.1	0.1	-
Depth of Soil Mixing Layer	0.15	0.15	0.15	m
Drinking Water Fraction from Groundwater	1	1	1	-
Livestock Water Fraction from Groundwater	1	1	1	-
Irrigation Water Fraction from Groundwater	1	1	1	-

1. Default parameter values for the RESRAD Code from *Data Collection Handbook for Establishing Residual Radioactive Material Guidelines with RESRAD* (draft), December 1992¹⁷.

2. Default values for Residential Scenario from Kennedy, W.E., and Streng, D. L., 1992, *Residual Radioactive Contamination from Decommissioning*, U.S. Nuclear Regulatory Commission, NUREG/CR-5512, Volume 1¹⁰.

APPENDIX D

Record Management Guidelines 92-01 AND 93-03

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555
March 16, 1992

RECORDS MANAGEMENT GUIDELINE NO. 92-01
PLAN FOR DECOMMISSIONING RECORDS

ADDRESSEES:

All NRC Records Liaison Officers (RLO)

PURPOSE

This Records Management Guideline (RMG) describes the document types that are to be maintained as separate decommissioning records in accordance with SECY 90-316, Decommissioning Records Plan (DRP). This RMG also contains procedures for determining reactor, materials, and inspection and enforcement case files that should be preserved permanently because of their historical value.

BACKGROUND

As a result of the General Accounting Office's (GAO) audit of NRC's decommissioning activities, GAO made several recommendations about decommissioning records. The 1989 GAO report, "NRC's Decommissioning Procedures and Criteria Need To Be Strengthened," recommended that NRC obtain and keep decommissioning records longer than 10 years. NRC agreed with the recommendation and outlined its implementation plan in SECY-90-316, dated September 10, 1990. The DRP established uniform retention periods of 20 years after license termination for reactor and materials license case files and permanent retention for all decommissioning records, all case files determined to be of significant historical value, and materials license case files terminated 1965 and prior that were reviewed by the Oak Ridge National Laboratory during 1977 through 1980 to ensure properly documented license terminations.

By memorandum dated October 4, 1990, the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support informed the Office of Information Resources Management (IRM), the Office of Nuclear Reactor Regulation (NRR), the Office of Nuclear Material Safety and Safeguards (NMSS), and the Regional Offices of their roles in implementing the DRP. IRM was assigned lead responsibility for implementing the DRP.

PROCEDURES FOR DETERMINING POWER REACTOR LICENSING, MATERIALS LICENSING, AND INSPECTION AND ENFORCEMENT CASE FILES THAT HAVE PERMANENT HISTORICAL VALUE

The DRP specifies that the entire reactor, materials, and corresponding inspection and enforcement case file will be retained permanently when staff determines the case file to be of significant historical value. Moreover, the DRP states that the decommissioning segment of each license

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H. Smith, IRM
(FTS) 504-2075

case file will be retained permanently, and the remainder of each case file and the case files that are not identified for permanent retention will be destroyed 20 years after termination of the license.

The October 4, 1990, memorandum from the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support requires NRR, NMSS, and the Regional Offices to develop and provide the criteria that should be used for determining the files that should be retained permanently because of their historical value. IRM uses the criteria listed below to determine if a specific case file should be retained permanently. We will incorporate any new criteria that you believe should be added to this list.

Criteria for Classifying Case Files to be of Significant Historical Value

- (1) The licensing, inspection, enforcement, or decommissioning activity results in judicial decisions or legislation that affect the functions and activities of the NRC.

An example of this type of case file is Enrico Fermi (Docket No. 50-16). Based on the Atomic Energy Act of 1954, the records for this plant encompass the developmental phase of the commercially operated nuclear power plants. The permanent retention of these records will continue to provide the original basis for the design, construction, and licensing of these nuclear power plants.

- (2) The licensing, inspection, enforcement, or decommissioning activity results in significant changes in regulatory activities and procedures.

An example of this type of case file is Browns Ferry Unit No. 1 (Docket No. 50-259). As a result of the 1975 fire, NRC promulgated fire protection regulations, as specified in Appendix R to 10 CFR Part 50. There could be issues involving other plants which would require review of the records pertaining to the 1975 fire.

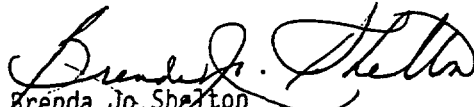
- (3) The licensing, inspection, enforcement, or decommissioning activity is the subject of Congressional investigation or is of great public interest.

An example of this type of case file is Three Mile Island Unit No. 2 (Docket No. 50-320). These records have historical value because of the vast number of safety issues that the staff has had to monitor since the March 1979 accident, in addition to the lessons learned by the NRC from the events preceding, during, and following the accident. All of NRC's safety and licensing reviews since the 1979 accident, and future reviews will be based on the lessons learned from the most significant accident of a commercially-operated nuclear power plant.

REQUIRED ACTION

Enclosure 1 contains a list of required actions, due dates, and the office(s) with assigned responsibility. IRM will coordinate efforts with appropriate staff members to ensure that the Decommissioning Records Plan is fully implemented. Enclosures 2 and 3 describe the documents that comprise the decommissioning segment of the reactor and materials license case files, respectively.

Please note that action is required only of the RLOs for NRR, NMSS, and all Regional Offices.


Brenda Jo. Shelton
NRC Records Officer

Enclosures:
As stated (3)

Enclosure 1
Actions Required to Implement
Decommissioning Records Plan

<u>Office</u>	<u>Required Action</u>	<u>Due Date</u>
All Regional Offices	<p>Separate the decommissioning records, list provided as Enclosure 3, within the pending termination and future materials license case files and maintain them separately within the case file for permanent retention. These license case files include licenses for nuclear materials issued pursuant to 10 CFR Parts 30 through 35, 39, 40, and 70 to all persons for academic, medical, and industrial uses, with the exception of (1) activities associated with fuel cycle and special nuclear material in quantities sufficient to constitute a critical mass in any room or area; (2) health and safety design review of sealed sources and devices and approval, for licensing purposes, of sealed sources and devices; (3) processing source material for extracting metallic compounds (including Zirconium, Hafnium, Tantalum, Titanium, Niobium, etc.); (4) distribution of products containing radioactive material to persons exempt pursuant to 10 CFR 32.11 through 32.26; and (5) new uses or techniques for use of byproducts, source, or special nuclear material. For example, licenses that authorize activities involving the following are within the purview of Headquarters' licensing responsibility, not the Regional Offices:</p> <ol style="list-style-type: none">(1) Fuel processing and recovery facilities (Part 70)(2) Enriched U-235 and Plutonium in the amounts of 350 grams and above (Part 70)(3) Interim Spent Fuel Storage Facilities (Part 70)(4) UF-6 Production Facilities (Part 70)(5) Commercial Nuclear Fuel Plants (Part 70)(6) Part 72 - Independent Spent Fuel Storage Installation; High Fuel Waste(7) Part 71 - Packaging and transportation of radioactive material(8) Rare Earth (extracting) Facilities (Part 40)(9) Source material in the amounts of 350 grams and above (Part 40)(10) Part 30 - Exempt Distribution Licenses	April 1993

Enclosure 1

<u>Office</u>	<u>Required Action</u>	<u>Due Date</u>
NRR, NMSS and Regional Offices	Develop criteria for ruling case files suitable for permanent retention. Submit list to IRM of case files that should be retained permanently because of significant historical value.	One month after this RMG is issued. (IRM will determine after evaluating input and establishing criteria for retaining complete case files permanently)
NMSS Contractor (ORNL)*	Complete review of 1,100 boxes of post-1965 terminated materials license case files not previously reviewed to identify and consolidate the decommissioning records for retention as a subset of each respective case file.	To be determined (TBD)
IRM	Separate the decommissioning records, list provided as Enclosure 3, contained in pending termination and future materials case files for permanent retention within each case file. These case files include licenses for nuclear materials issued pursuant to 10 CFR parts 30 through 35, 39, 40 and 70, as described on page 1 of this enclosure. Assess the 1,100 boxes of post-1965 terminated materials license case files that are currently under review by Oak Ridge National Laboratory (ORNL) to determine if the files should be retained in their entirety, or if the decommissioning records should be separated.	April 1993 TBD
	Separate the files should it prove feasible to retain only the decommissioning records permanently.	(6-9 months after records are returned from ORNL)

*When the case files are returned to IRM from ORNL, IRM will determine whether it is cost effective to retain the entire record collection permanently, or to separate the decommissioning records for permanent retention and destroy the remaining portions 20 years after termination of license. If IRM determines that the records should be separated, IRM will separate them.

Enclosure 1

Office

IRM (Cont'd)

Required Action

Revise records disposition schedules and submit to the National Archives and Records Administration (NARA) and the General Accounting Office (GAO) for approval.

Review the respective terminated inspection and enforcement case files to retrieve those decommissioning records that are not found within the license case files during the NMSS contractor and IRM reviews and include them in the respective case files to ensure the completeness of the decommissioning records segment of each file.

Due Date

Schedules submitted
December 1991*

(Upon request by
NMSS)

*Not completed until approved by NARA and GAO.

Enclosure 2

Documents that Comprise the Decommissioning Segment of Reactor Case Files

The documents listed below will be maintained separately within the official case file for permanent retention:

1. Application for possession-only license
2. Possession-only license amendment and any associated technical specifications (TS)
3. Decommissioning or Dismantling Plan and associated TS changes
4. Requests for additional information on possession-only applications and Decommissioning/Dismantling Plans; All responses from licensees pertaining to requests for additional information
5. Federal Register Notices for possession-only applications and Decommissioning/Dismantling Plans
6. Decommissioning/Dismantling orders
7. Final site surveys by licensees
8. Final site surveys by regional inspectors
9. All license amendments and associated TS changes following the initial application by the licensee for possession-only licenses
10. All documents related to financial assurance for decommissioning, including decommissioning funding plans, certifications of financial assurance for decommissioning, related cost estimates, and records of funding methods
11. Records of spills and other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site
12. License termination orders and associated safety evaluations
13. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials were used or stored and locations of possible inaccessible contamination
14. Any additional documents which refer to decommissioning, decontamination, or termination of the license, including interim or partial decommissioning of specific facilities at any time during the history of licensed operations

Enclosure 3
Documents that Comprise the Decommissioning Segment of Materials Case Files

The documents listed below will be maintained separately within the official case file for permanent retention:

1. All license applications, amendment requests, and renewal requests
2. Complete license, including all amendments
3. Termination amendment
4. Any licensee request for license termination and all supporting documentation, including plans for completion of decommissioning
5. Forms dealing with disposition of material (NRC/AEC Form 314, AEC Form HQ-277, and other forms) and/or letters from licensees dealing with disposition and status of material
6. Reports of NRC closeout inspections
7. Letter of certification from NRC official saying license can be terminated
8. Any closeout survey by NRC, the licensee, or a contractor working for either NRC or the licensee
9. Any additional documents dealing with disposition of waste or other material or residual contamination on the site, including records of onsite burials
10. All documents related to financial assurance for decommissioning, including decommissioning funding plans, certifications of financial assurance for decommissioning, related cost estimates, and records of funding methods
11. Records of spills and other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site
12. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials were used or stored and locations of possible inaccessible contamination
13. Any additional documents which refer to decommissioning, decontamination, or termination of the license, including interim or partial decommissioning of specific facilities at any time during the history of licensed operations



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

SEP 08 1993

RECORDS MANAGEMENT GUIDELINE NO. 93-03
Final Criteria for Determining that Records Should be Retained Permanently
Because of Significant Historical Value

ADDRESSEES:

All NRC Record Liaison Officers (RLOs)

PURPOSE:

This Records Management Guideline (RMG) provides criteria for determining whether records should be retained permanently because of their significant historical value. This RMG also identifies the reactor, materials, and corresponding inspection and enforcement case files that have been identified to date as records that should be retained permanently because of their significant historical value.

The guidance provided in this RMG does not supersede RMG 92-01, dated March 16, 1992, but supplements it by providing final criteria for determining records of significant historical value for future retention.

Criteria for Classifying Case Files to be of Significant Historical Value

- (1) A licensing, inspection, enforcement, or decommissioning issue results in judicial decisions or legislation that affect the functions and activities of the NRC.

An example of a type of case file that falls under this criteria is Enrico Fermi. Based on the Atomic Energy Act of 1954, the records for this plant encompass the developmental phase of the commercially operated nuclear power plants. The permanent retention of these records will continue to provide the original basis for the design, construction, and licensing of nuclear power plants.

- (2) A licensing, inspection, enforcement, or decommissioning issue results in significant changes in regulatory activities and procedures.

Examples of the type of case files that fall under this criterion are Calvert Cliffs, and Limerick 1. Following a court decision on environmental issues and the National Environmental Policy Act (NEPA) of 1969, as amended, NRC promulgated regulations in Appendix D to 10 CFR Part 50 and, subsequently, 10 CFR Part 51. Calvert Cliffs and Limerick were the lead plants for the environmental issues encompassed in these regulation; e.g., the construction permit and operating license review stages.

Another example of the type of case file that falls under this criterion is Browns Ferry Unit No. 1. As a result of the 1975 fire, NRC promulgated fire protection regulations, as specified in Appendix R to 10 CFR Part 50. Issues could arise involving other plants which would require review of the records pertaining to the 1975 fire.

- (3) A licensing, inspection, enforcement, or decommissioning issue that is the subject of a Congressional inquiry or is of great public interest.

An example of this type of case file is Three Mile Island Unit No. 2. These records have historical value because of the vast number of safety issues that the NRC has had to resolve since the March 1979 accident, in addition to the lessons learned by the NRC from the events preceding, during, and following the accident. All of NRC's safety and licensing reviews since the 1979 accident, as well as future reviews, will be based on the lessons learned from the most significant accident of a commercially-operated nuclear power plant.

- (4) A licensing, inspection, enforcement, or decommissioning issue of a nuclear power plant involved in design and safety matters of significant concern.

An example of this type of case file is Yankee Rowe. These records have historical value because they involve issues that will influence NRC's policy on pressure vessel integrity. Moreover, NRC is negotiating with the Yankee Rowe licensee on NRC's use of this plant for research associated with plant aging issues.

- (5) A licensing, inspection, enforcement or decommissioning issue that involves extensive litigation.

Examples of the type of files that fall under this criterion are the official proceeding records related to the hearings on emergency plans for both Seabrook and Shoreham.

- (6) A licensing, inspection, enforcement or decommissioning issue for which there has been escalated enforcement action involving significant personnel exposures or offsite releases.

An example of the type of case file that would fall under this criterion is the byproduct material licensee, Scientific Inspection Technology Inc., Hitson, Tennessee, because of the Notice of Violation issued by the NRC related to an incident in which a radiographer received an overexposure categorized in the aggregate as a Severity Level II problem.

Required Action

Enclosure 1 contains a list of required actions, due dates, and the offices with assigned responsibility. Enclosures 2 and 3, which were previously

issued with RMG No. 92-01, describe the documents that comprise the decommissioning segment of the reactor and materials license case files, respectively. Note that the only change to these listings is that enforcement documents have been added. Enclosures 4.1 and 4.2 are listings of reactor and materials license case files, and the corresponding inspection and enforcement case files that have been identified to date as records that should be retained permanently because of their significant historical value. If NRR, NMSS, OE, SECY, or the Regional Offices believe that other case files should be added, please inform me in writing.

Note that this RMG requires action by only the RLOs for IRM, NRR, NMSS, OE, SECY, and all Regional Offices.



Brenda Jo Shelton
NRC Records Officer

Enclosures:
As stated (4)

CONTACT:
Hazel Smith, IRM
504-2075

Enclosure 1
Actions Required for Records of Significant Historical Value

<u>Office</u>	<u>Required Action</u>	<u>Due Date</u>
IRM	Separate records with historical value that are to be retained permanently in accordance with the case files that are identified in Enclosures 4.1 and 4.2.	January 30, 1994
NWSS, NRR, OE, SECY, and the Regional Offices	Submit listings to the NRC Records Officer of case files that are to be added to the lists of records of significant historical value. A reason for determining that the records are of significant historical value must be stated for each case file listed. Note that the case files that have been identified to date are listed in Enclosures 4.1 and 4.2.	June and December of each year

Enclosure 2

Documents that Comprise the Decommissioning Segment of Reactor Case Files

The documents listed below will be maintained separately within the official case file for permanent retention:

1. Application for possession-only license,
2. Possession-only license amendment and any associated technical specifications (TS),
3. Decommissioning or Dismantling Plan and associated TS changes,
4. Requests for additional information on possession-only applications and Decommissioning/Dismantling Plans; All responses from licensees pertaining to requests for additional information,
5. Federal Register Notices for possession-only applications and Decommissioning/Dismantling Plans,
6. Decommissioning/Dismantling orders,
7. Final site surveys by licensees,
8. Final site surveys by regional inspectors,
9. All license amendments and associated TS changes following the initial application by the licensee for possession-only licenses,
10. All documents related to financial assurance for decommissioning, including decommissioning funding plans, certifications of financial assurance for decommissioning, related cost estimates, and records of funding methods,
11. Records of spills and other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site,
12. License termination orders and associated safety evaluations,
13. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials were used or stored and locations of possible inaccessible contamination,
14. Any additional documents which refer to decommissioning, decontamination, or termination of a license, including interim or partial decommissioning of specific facilities at any time during the history of licensed operations, and
15. Any enforcement documents related to decommissioning and decontamination activities.

Enclosure 3

Documents that Comprise the Decommissioning Segment of Materials Case Files

The documents listed below will be maintained separately within the official case file for permanent retention:

1. All license applications, amendment requests, and renewal requests,
2. Complete license, including all amendments,
3. Termination amendment,
4. Any licensee request for license termination and all supporting documentation, including plans for completion of decommissioning,
5. Forms dealing with disposition of material (NRC/AEC Form 314, AEC Form HQ-277, and other forms) and/or letters from licensees dealing with disposition and status of material,
6. Reports of NRC closeout inspections,
7. Letter of certification from NRC official stating that license can be terminated,
8. Any closeout survey by NRC, the licensee, or a contractor working for either NRC or the licensee,
9. Any additional documents dealing with the disposition of waste or other material or residual contamination on the site, including records of onsite burials,
10. All documents related to financial assurance for decommissioning, including decommissioning funding plans, certifications of financial assurance for decommissioning, related cost estimates, and records of funding methods,
11. Records of spills and other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site,
12. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials were used or stored and locations of possible inaccessible contamination,
13. Any additional documents which refer to decommissioning, decontamination, or termination of the license, including interim or partial decommissioning of specific facilities at any time during the history of licensed operations, and
14. Any enforcement documents related to decommissioning and decontamination activities.

Listing of Reactor (Part 50 Docket) Case Files Identified as Records Having Historical Value
(which will be retained permanently)

<u>Plant</u>	<u>Docket No.</u>	<u>Reason</u>
Browns Ferry Unit 1	50-259	Criterion (2) - Significant changes in NRC regulations (Appendix R to Part 50)
Calvert Cliffs, Unit 1	50-317	Criterion (2) - Lead construction permit review under regulations promulgated for environmental issues within the provisions of NEPA.
Diablo Canyon	50-275	Criterion (2) - Development of seismic criteria.
Dresden 1	50-10	Criterion (1) - One of the first privately owned plants to receive a construction permit.
Enrico Fermi	50-16	Criterion (1) - Precedent setting with respect to the developmental phase of commercially operated nuclear power plants
Indian Point 1	50-3	Criterion (1) - One of the first privately owned plants to receive a construction permit.
Limerick	50-352	Criterion (2) - Lead operating license review under regulations promulgated for activities encompassed within NEPA.
Monticello	50-263	Criterion (3) - Public interest about changes in quality assurance regulations.
Palisades [Indian Point 2, Vermont Yankee, Turkey Point]	50-255	Criterion (2) - Subjects of major environmental controversies.
Oyster Creek	50-219	Criterion (2) - Led to changes in the licensing process and quality assurance regulations.
San Onofre, Unit 1	50-206	Criterion (2) - Development of seismic criteria.
Seabrook	50-443	Criterion (5) - Extensive litigation relating to emergency plans.
Shoreham	50-322	Criterion (5) - Extensive litigation relating to emergency plans.

Enclosure 4.1

<u>Plant</u>	<u>Docket No.</u>	<u>Reason</u>
TMI Unit 2	50-320	Criterion (3) - Congressional inquiry and extensive public interest.
Yankee Rowe	50-29	Criterion (4) - NRC plans to use this plant for its research and assessments pertaining to plant aging issues.
Zion [Salem, Hope Creek, Pilgrim]	50-295	Criterion (2) - Influenced decisions related to siting guidelines.

Enclosure 4.2

Listing of Materials License Case Files Identified as Records
Having Historical Value
(which will be retained permanently)

List of Low Level Waste Management License
Files for Permanent Retention

<u>Licensee</u>	<u>Docket No.</u>	<u>Reason</u>
Advanced Medical Systems	030-16055	SDMP*
Alcoa (Aluminum Company of America)	040-00501 (T)	SDMP
Amax	040-08820	SDMP
Anne Arundel County/Curtis Bay	040-00341	SDMP
Army, Department of, Aberdeen Proving Ground	040-06354	SDMP
Babcock & Wilcox, Appollo, PA	070-00135	SDMP
Babcock & Wilcox, Parks Township, PA	070-00364	SDMP
BP Chemicals	040-07604	SDMP
Cabot Corporation, Boyertown, Reading, Revere, PA	040-06940	SDMP
Chemetron	040-08724	SDMP
Chevron Corporation (formerly Gulf United & Nuclear Fuels Corp.)	070-00903, 50-23, 50-101, 50-290 (T)	SDMP
Cintichem	070-00687 050-54	Substantial public interest
Dow	040-00017	SDMP
Elkem	99990003	SDMP
Englehard Corp.	070-00139	SDMP

*Site Decommissioning Management Plan - Criterion (3)

Enclosure 4.2

Fansteel	040-07580	SDMP
Hartley and Hartley (Kawkawlin) Landfill	040-01790 (T)	SDMP
Heritage Minerals	040-08980	SDMP
J. C. Haynes	034-13774 (T)	Criterion (6) - Escalated enforcement action
Kerr-McGee (Cimarron)	070-00925, 070-01193	SDMP
Kerr-McGee	040-02061	Criterion (6) - Escalated enforcement action
Kerr-McGee (Cushing)	070-03073 (T) 040-01478 (T) 070-00712 (T)	SDMP
Lake City Army Ammunition Plant (formerly Remington Arms Company)	040-08303, 040-08767	SDMP
Magnesium Elektron	040-08984	SDMP
Minnesota Mining and Manufacturing Co. (3M)	070-00832, 040-01020 (T)	SDMP
Molycorp, Inc., Washington, PA	040-08778	SDMP
Molycorp, Inc., York, PA	040-08794	SDMP
Northeast Ohio Regional Sewer District	030-18276	SDMP
Nuclear Metals, Inc.	040-00672, 040-08866	SDMP
Old Vic, Inc.	030-19594	SDMP
Permagrain Products	030-29288	SDMP
Pesses Company, METCOA Site	040-08406	SDMP
RMI Titanium Company	040-02384	SDMP

Enclosure 4.2

RTI, Inc. (formerly Process Technology of North Jersey, Inc.)	030-07022	SDMP
Safety Light Corporation	030-05980	SDMP
Schott Glass Technologies	040-07924	SDMP
Scientific Inspection Technology, Inc.	030-30910	Criterion (6) - Escalated enforcement action
Shieldalloy Metallurgical Corp. Cambridge, OH	040-08948	SDMP
Shieldalloy Metallurgical Corp., Newfield, NJ	040-07102	SDMP
St. Josephs Radiology Assoc., Inc. (formerly Dr. Fischer and Associates)	024-05592-01	Criterion (6) - Escalated enforcement action
Texas Instruments, Inc.	070-00033	SDMP
3M (Pine County)	070-00832 (T) 040-01020 (T)	SDMP
United Technologies - Pratt & Whitney	None	SDMP
UNC, Inc.	070-00371	SDMP
UNC/Naval Products (Wood River Junction)	070-00820	SDMP
Watertown Arsenal/Mall	040-02253, 070-00263, 030-04593	SDMP
Watertown GSA	None	SDMP
Westinghouse, Waltz Mill Site	070-00698	SDMP
West Lake Landfill	040-08035, 040-08801 (T)	SDMP
Whittaker Corp.	040-07455	SDMP
Wyman-Gordan Company	040-01650 (T)	SDMP

Enclosure 4.2

Watertown GSA	None	SDMP
Westinghouse, Waltz Mill Site	070-00698	SDMP
West Lake Landfill	040-08035, 040-08801 (T)	SDMP
Whittaker Corp.	040-07455	SDMP
Wyman-Gordian Company	040-01650 (T)	SDMP

Rules and Regulations

Federal Register

Vol. 61, No. 96

Thursday, May 16, 1996

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

DEPARTMENT OF AGRICULTURE

Grain Inspection, Packers and Stockyards Administration

7 CFR Parts 800 and 810

RIN 0580-AA14

United States Standards for Barley

AGENCY: Grain Inspection, Packers and Stockyards Administration, USDA.

ACTION: Final rule; postponement of effective date.

SUMMARY: This document postpones the effective date of the final rule (61 FR 18486) to revise the United States Standards for Barley from June 1, 1996, until June 1, 1997. This action is being taken to postpone the implementation of the United States Standards for Barley from the beginning of the 1996 marketing season to the beginning of the 1997 marketing season. The extension of the effective date is being taken to prevent disruption in the marketing of Barley on the domestic and international markets. Postponing the effective date to the beginning of the 1997 marketing season will allow adequate time for the market to make adjustments to the changes being made in the standards.

EFFECTIVE DATE: The effective date of the final rule is postponed from June 1, 1996, to June 1, 1997.

FOR FURTHER INFORMATION CONTACT: George Wollam, USDA, GIPSA, Room 0623, South Building, P.O. Box 96454, Washington, D.C. 20090-6454; Telephone (202) 720-0292; FAX (202) 720-4628.

SUPPLEMENTARY INFORMATION: On March 22, 1995, the Grain Inspection, Packers and Stockyards Administration (GIPSA), U.S. Department of Agriculture, under authority of the United States Grain Standards Act, as amended published a proposed rule (60 FR 15075) to revise the United States Standards for Barley.

The proposed rule was adopted, with changes, and a final rule was published on April 26, 1996, (61 FR 18486), with an effective date of June 1, 1996.

Since the publication of the final rule, GIPSA has determined it is in the best interest of the barley market to postpone the effective date. Immediate implementation may not generate anticipated benefits to the market but may adversely affect merchandisers of grain, especially because of contracting concerns. After consultation with the trade and taking into account trade views both for and against a change in the effective date, GIPSA determined that it would be less disruptive if the effective date for implementing the revisions to the United States Standards for Barley were changed from June 1, 1996 to June 1, 1997. Also providing a one year delay in implementing the standards would allow for seasonal adjustment of markets.

Background

On page 18490, in the third column, second paragraph, the second and third sentences "Pursuant to that section of the Act, it has been determined that in the public interest the revision becomes effective June 1, 1996. This effective date will coincide with the beginning of the 1996 crop year and facilitate domestic and export marketing of barley" are revised to read "It has been determined that in the public interest the revision becomes effective June 1, 1997. This effective date will coincide with the beginning of the 1997 crop year and facilitate domestic and export marketing of barley".

Authority: Pub. L. 94-582, 90 Stat. 2867, as amended (7 U.S.C. 71 et seq.).

Dated: May 8, 1996.

David Orr,

Acting Administrator.

[FR Doc. 96-11974 Filed 5-15-96; 8:45 am]
BILLING CODE 3410-01-P

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 20, 30, 40, 61, 70, and 72

RIN 3150-AF17

Termination or Transfer of Licensed Activities: Recordkeeping Requirements

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations pertaining to the disposition of certain records when a licensee terminates licensed activities or licensed activities are transferred to another licensee. The final rule requires a licensee to transfer records pertaining to decommissioning, and certain records pertaining to offsite releases and waste disposal, to the new licensee if licensed activities will continue at the same site, and it requires the new licensee to forward these same records to the NRC before the license is terminated.

EFFECTIVE DATE: June 17, 1996.

FOR FURTHER INFORMATION CONTACT: Mary L. Thomas, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001, telephone (301) 415-6230, e-mail MLT1@NRC.GOV.

SUPPLEMENTARY INFORMATION:

I. Background

While evaluating an incident involving some offsite contamination, the NRC identified a deficiency in the current recordkeeping requirements. The NRC was unable to determine how much radioactive material was released to a sanitary sewerage system because records of previous releases by the original holder of the license were not available. In addition, the regulations were unclear with regard to the final disposition of these records when licensed activities have ceased and the license is terminated. A proposed rule requiring licensees to forward certain records to the NRC once licensed activities ceased, or to a new owner if they would be taking over licensed activities, was published for comment in the Federal Register on December 28, 1994 (59 FR 66814).

II. Discussion of Comments and Summary of Requirements in the Final Rule

This section includes a discussion of the significant issues raised by public comment and how they were addressed. Six comment letters were received on the proposed rule, 3 from Agreement States, 1 from a licensee, and two from public interest groups. Three supported the proposed rule, and three (from Agreement States) questioned the benefit in adopting these requirements.

Public Comments

1. Need for the Rule and Expected Benefit

Comments. Two commenters stated that the NRC has not demonstrated the need for the rule on the basis of one incident. They also stated that the NRC did not demonstrate how the proposed regulations and their commensurate costs would assist licensees, the NRC, and the Agreement States in the analysis of the environmental impact from the site. They requested that the NRC provide data that permits evaluation of the actual impact of these regulations.

These same commenters stated that the usefulness of the records in the decisionmaking process should also be demonstrated in each case. They referred to the Objective Section of the Draft Regulatory Analysis, which stated that these records " * * * will provide the NRC with the information needed to assess possible risks associated with licensed activities once a licensee has terminated its license." They believed that this assumption is generally false, and that even if sewer release records were available, an independent evaluation of the environment would still be required.

Response. The intent of the proposed rule was to ensure that records that are required by current regulations to be retained by licensees during licensed operations are available in the event that safety concerns arise after license termination regarding any offsite consequences found to have resulted from licensed operations. Since the NRC may not be able to determine what problems will arise in the future, the best course of action is to have the records available after the license is terminated. The proposed rule specified that the records used by the licensee to demonstrate compliance with the public dose limits and limits on waste disposals were to be forwarded to the NRC prior to license termination or to the new owner if licensed operations were to continue at the site under a new or amended license. In addition, the proposed rule specified that records

important for decommissioning be provided to the new licensee prior to license reassignment or transfer. As discussed below, in addition to decommissioning records, the records included in the final rule are: results of offsite release measurements and calculations under § 20.2103(b)(4); and waste disposals authorized under §§ 20.2202, 20.2203, 20.2204, and 20.2205.

In order for the NRC to determine that a licensee has effectively decommissioned its facility, and to authorize license termination, the NRC will review the licensee's evaluation of previous releases to the environment and waste disposals to determine whether there is a need for the licensee to remediate significant offsite contamination as a result of past licensed activities prior to license termination. Licensees are already required to keep these records until license termination.

When transfer of a license to a new entity is approved by the Commission, certain records related to offsite releases of material, including waste disposals, would be needed by the new licensee prior to decommissioning to determine areas where remediation may be needed. In addition, there may be circumstances where it will be necessary for the NRC or other government agencies to evaluate the effects of licensed operations on the environment. Although other information would also be needed to perform an environmental analysis, access to these records would be useful in evaluating potential sources of contamination.

The NRC has re-evaluated the impact of this regulation in the Regulatory Analysis. The records required to be transferred are the records that the licensee is already required to retain until license termination. The burden associated with this rulemaking relates to transfer and subsequent storage of records, and as discussed in the Regulatory Analysis, is not found to be significant.

The final rule has been modified to specify that only decommissioning records and records of offsite releases and waste disposals need to be forwarded to the new licensee in the event of license transfer or re-assignment and that these are the only records that need to be provided to the NRC at license termination. In addition, only licensees authorized to possess unsealed source material or unsealed byproduct material with half-lives greater than 120 days (i.e., licensees that have a potential for significant contamination) will be required to

provide records to the new licensee in the event of re-assignment or transfer and to the NRC at license termination. The use of a 120 day half-life for byproduct material was chosen because radioactive material with half-lives less than 120 days would be completely decayed in a few years, and corresponds to the value currently used to determine which licensees must have a decommissioning funding plan. This change in the final rule was made to reduce the burden on a number of licensees that routinely use only sealed sources and, in the case of byproduct material, short-lived isotopes (less than 120 days). Licensees authorized to possess only sealed sources would still be required to retain records of spills involving source ruptures, under current decommissioning recordkeeping requirements. The final rule will require all licensees to forward decommissioning records to the NRC at license termination. Using this criteria the number of licensees affected annually by this rulemaking has decreased from approximately 1700 in the proposed rule to 960 in the final rule.

2. Agreement State Compatibility

Comment. One commenter stated (1) that there was no basis for a Division 2 level of compatibility and (2) that an Agreement State could use other methods, such as actual surveys, to confirm that there was no offsite contamination. In addition, the commenter stated that other costs associated with the proposed rule have not been considered, such as costs associated with inspections, and while the NRC may be able to absorb these costs in "non-core portions of the inspection program," Agreement States do not have this luxury.

Response. The Commission still believes that this rule should be assigned a Division 2 compatibility level for most of the new requirements. The final rule assigns a Division 3 compatibility level for the requirement that records be provided to the regulatory agency prior to license termination. While the NRC believes that it would be prudent for Agreement States to adopt a similar requirement, the final rule assignment of a Division 3 compatibility level for this requirement provides the flexibility for each State to determine which records should be provided to the regulatory agency and retained by it at license termination.

The NRC believes retention of these records will aid in the resolution of potential safety concerns that may be identified after license termination, and

also recognizes that an Agreement State without an equivalent requirement for record retention has the ability to resolve potential future safety concerns. However, this can be achieved by conducting radiological surveys at the formerly licensed site. Without the records, these surveys may need to be greater in number and may be more costly, but the absence of retained records will not preclude an Agreement State from adequately assessing future safety concerns.

Because the Commission has reduced the burden of this rule by limiting the number of licensees affected by this rule, the inspection burden on the Agreement States should not be significantly increased. It is unlikely that any State will have more than 2-3 transfers per year. With respect to other costs, the reporting burden reflects that the time required to index, review, and store the required records has been re-calculated to be an average of 5 hours per license termination or transfer.

3. Regulatory Alternatives

Comment. Two commenters stated that the NRC failed to identify regulatory alternatives that would be as effective as the proposed rule while placing less burden on licensees, the NRC, and Agreement States. As noted in the discussion of Issues 1 and 2, the commenters concluded that any benefit from the proposed rule is questionable. They stated that specific regulatory alternatives that should be considered include, but are not limited to:

a. Perform separate evaluations for the utility of requiring records for offsite releases and for waste disposal, and making independent judgments.

b. Consider limiting the scope of the rules to address only those facilities that possess unsealed sources with long half-lives.

c. Consider all records being provided to the NRC, rather than requiring Agreement States to maintain the records.

d. Eliminate transferring 10 CFR 20.2005 type records (disposal of specific wastes, in quantities less than or equal to 1.85 kilobecquerels per gram of tritium or carbon-14 in scintillation fluids or animal tissue).

Response. The Commission considered possible alternatives to rulemaking. These are addressed in the Regulatory Analysis prepared for this rule. The following information is provided with respect to the specific recommendations of the commenters:

(a) The NRC reconsidered the scope of the proposed rule and decided to limit the records required to those needed to support decommissioning. The

Commission has already evaluated the impact and need for decommissioning records in promulgating a final rule addressing recordkeeping requirements for decommissioning (58 FR 39628):

The records included in the final rule are decommissioning records, records of waste disposals that would be permitted under §§ 20.2002 (including any burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005, and results of measurements and calculations used to evaluate offsite releases (§ 20.2103(b)(4)). These records would be helpful in evaluating the impact of a licensee's past activities. This information can be used by the new licensee receiving the records in developing decommissioning plans and by the regulatory agency to evaluate the adequacy of the licensee's decommissioning activities. With this change, the NRC concluded that for most licensees the overall number of records that would be required to be transferred to the new licensee should not exceed the capacity of several file drawers, even for a license that has been in effect for some time and, therefore, the overall burden associated with the transfer should be small. In addition, the rule permits storage of this information electronically. The final rule also requires that decommissioning records and certain records pertaining to offsite releases and waste disposal be forwarded to the NRC or the appropriate Agreement State prior to license termination.

(b) The NRC has evaluated the suggestion to limit the scope of licensees covered by the rule and has revised the final rule and the Regulatory Analysis to reflect that, for licenses authorized under Parts 30 or 40, the rule only affects those licensees authorized to possess unsealed byproduct material with half-lives greater than 120 days or unsealed source material. Licensees that use and possess sealed sources, or unsealed byproduct material with short half-lives, are no longer affected by this rule. As a result of this change, most medical licensees will not need to transfer records in the event of license transfer, or re-assignment. Final records disposition for these licensees and others excluded by this rule will still be determined on a case-by-case basis by the NRC at the time of license termination.

(c) The purpose of this rulemaking is to assure that adequate records are available to provide historical information on previous licensed operations in the event significant offsite contamination is detected after a licensee has ceased operation of their facility. To provide flexibility to the

Agreement States, the sections of the final rule requiring transmittal of records to the NRC at license termination have been designated Division 3 compatibility level. Because the NRC has discontinued its regulatory authority in the Agreement States for this material, it is appropriate that the Agreement States, rather than the NRC, both determine which Agreement State licensee records should be retained at license termination, and maintain those records.

(d) Records of waste disposals allowed by § 20.2005 currently are required by § 20.2108(b) to be retained until the Commission terminates each pertinent license requiring the record. The Commission is currently evaluating a petition for rulemaking that requests a revision to § 20.2005 pertaining to waste disposal. This petition is currently on hold until finalization of the rulemaking addressing radiological criteria for decommissioning. In light of this, we will consider this comment in resolving this petition.

4. Public Access To Information

Comment. One commenter was concerned that the Commission overlooked the benefits which could result from simple, inexpensive-to-implement requirements enhancing public access to information. This commenter noted that enhanced public access to information is an important (though not the only) reason for recordkeeping, in part because informed members of the public can play a significant role in ensuring that regulatory actions are appropriate and timely. This commenter urged the Commission to consider enhanced public access to information as part of a coherent policy to protect important documentary information from loss.

Response. This rule requires that records pertaining to decommissioning and certain records pertaining to offsite releases and waste disposals be transferred to a licensee that takes over a previous licensee's business and that these records be forwarded to the cognizant regulatory body prior to license termination, thereby protecting these records for future access. Once these records are forwarded to the NRC, they will be available through the Freedom of Information Act process, exclusive of any proprietary information.

5. Independent Spent Fuel Storage Installations and 10 CFR 72.30(d) Requirements

Comment. One commenter stated that 10 CFR 72.30(d) addresses recordkeeping requirements for

decommissioning for independent spent fuel storage installations and that the NRC has proposed changes to this paragraph to address the transfer of licensed activities. This commenter questions why 10 CFR 50.75(g), which contains the same type of recordkeeping requirements for decommissioning for production and utilization facilities, was not changed. The commenter believes this to be inconsistent and possibly an inadvertent omission by the NRC.

Response. This rule only addresses materials licensees. The Commission is currently evaluating the need for additional rulemaking to address the broad issue of transfers of reactor licenses. Any such rulemaking would also consider recordkeeping requirements.

Summary of Requirements of the Final Rule

The final rule requires transfer of certain records pertaining to decommissioning, offsite releases, and waste disposal to a licensee that takes over operation of licensed activities. These records include: those waste disposals that would be permitted under §§ 20.2002 (including any burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005, and results of measurements and calculations used to evaluate offsite releases (§ 20.2103(b)(4)). The new licensee will need these records in order to perform an adequate site characterization prior to decommissioning. Once the new entity is granted a license and accepts these records, they become subject to all regulations concerning termination and transfer. The final rule also requires that these records be forwarded to the NRC prior to license termination. In selecting records to include in this rulemaking, the NRC focused attention on information that would be needed by licensees to conduct decommissioning effectively and for the NRC to evaluate offsite consequences from a licensee's operation. In addition, for certain records of offsite releases and waste disposals, the final rule has also been modified to apply to licensees only authorized to possess source and byproduct material with half-lives greater than 120 days, in an unsealed form.

Paragraph 20.2108(b) has been amended to state that there are additional requirements for disposition of records in 10 CFR Parts 30, 40, 70, and 72. Paragraphs 30.35(g) and 40.36(f) specify records that the Commission considers important to decommissioning. The NRC has revised these paragraphs to require the transfer

of records pertaining to decommissioning to the new licensee. Paragraphs have been added to §§ 30.51, 40.61, 70.51, and 72.80 to clarify that records pertaining to decommissioning, offsite releases, and certain records pertaining to waste disposal be forwarded to the new licensee prior to license transfer or re-assignment, or to the NRC prior to license termination. Also, paragraphs have been added to §§ 61.30(a)(3) and 61.31(c)(1) to clarify that records required by §§ 61.80 (e) and (f) are to be transferred to the disposal site owner, or to the party responsible for institutional control of the disposal site, respectively.

Finally, a new paragraph has been added to §§ 30.36, 40.42, 70.38, and 72.54 to state that a license will not be terminated until the NRC receives the records required by revised §§ 30.51, 40.61, 70.51, and 72.80.

III. Agreement State Compatibility

This rulemaking will be a matter of compatibility between the NRC and the Agreement States, thereby providing consistency of State and Federal safety requirements. The NRC has determined that a Division 2 level of compatibility should be assigned to the changes to §§ 30.35, 40.36, and 61.31 because the records required by these sections are important to assure protection of public health and safety, and are important to ensure that facilities in Agreement States are effectively decommissioned. Under this level of compatibility the Agreement States will be expected to adopt recordkeeping requirements that are as stringent as NRC's, but they will be permitted flexibility in their requirements based on their radiation protection experience, professional judgments, and community values.

Revisions to §§ 30.51, 40.61, 70.51, and 72.80 that require records to be forwarded to the new licensee whenever a license is transferred or re-assigned will also be assigned a Division 2 level of compatibility for the reasons cited above. Other revisions to these sections addressing forwarding of records to the NRC prior to license termination will be assigned a Division 3 compatibility level. Under this level of compatibility the Agreement States will have the option to adopt similar requirements regarding final disposition of the records, but will not be required to adopt such requirements. While NRC believes retention of these records will aid in the resolution of potential safety concerns that may be identified after license termination, it also recognizes that an Agreement State without an equivalent requirement for record retention has the ability to resolve

potential future safety concerns. This can be achieved by conducting radiological surveys at the formerly licensed site. Without the records, these surveys may need to be greater in number and may be more costly, but the absence of retained records will not preclude an Agreement State from adequately assessing future safety concerns.

IV. Environmental Impact: Categorical Exclusion

The NRC has determined that this final rule is the type of action described as a categorical exclusion in 10 CFR 51.22(c)(3)(ii), recordkeeping requirements. Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.

V. Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget, approval number 3150-0014, -0017, -0020, -0009, -0132, and -0135.

The public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments on any aspect of this collection of information, including suggestions for reducing burden, to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail at BJS1@NRC.GOV; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0014, -0017, -0020, -0009, -0132, and -0135), Office of Management and Budget, Washington, DC 20503.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

VI. Regulatory Analysis

The NRC has prepared a regulatory analysis on this final rule. The analysis examines the costs and benefits of the alternatives considered by the NRC. The regulatory analysis is available for inspection at the NRC Public Document Room, 2120 L Street NW. (Lower Level),

Washington, DC. Single copies of the analysis may be obtained from Mary L. Thomas, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone: (301) 415-6230; email: MLT1@NRC.GOV

VII. Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the Commission certifies that this final rule does not have a significant economic impact on a substantial number of small entities. The rulemaking imposes requirements on those licensees who are required to have decommissioning funding assurance and on licensees who are transferring their license to a new licensee. These changes require the transfer of records pertaining to decommissioning, and certain records of waste disposals and offsite releases, to the new licensee. In addition, the rule requires forwarding these records to the NRC at license termination. These records are already required to be maintained until the license is terminated by the Commission, and are needed to provide historical information of the impact of a previous licensee activities on the environment and decommissioning.

VIII. Small Business Regulatory Enforcement Fairness Act

In accordance with the Small Business Regulatory Enforcement Fairness Act of 1996 the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory Affairs of OMB.

IX. Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule and, therefore, that a backfit analysis is not required for this rule because these amendments do not involve any provisions that would impose backfits as defined in 10 CFR 50.109(a)(1).

List of Subjects

10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.

10 CFR Part 30

Byproduct material, Criminal penalties, Government contracts, Intergovernmental relations, Isotopes, Nuclear materials, Radiation protection, Reporting and recordkeeping requirements.

10 CFR Part 40

Criminal penalties, Government contracts, Hazardous materials transportation, Nuclear materials, Reporting and recordkeeping requirements, Source material, Uranium.

10 CFR Part 61

Criminal penalties, Low-level waste, Nuclear materials, Reporting and recordkeeping requirements, Waste treatment and disposal.

10 CFR Part 70

Criminal penalties, Hazardous materials transportation, Material control and accounting, Nuclear materials, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Scientific equipment, Security measures, Special nuclear material.

10 CFR Part 72

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

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR Parts 20, 30, 40, 61, 70, and 72.

PART 20—STANDARDS FOR PROTECTION AGAINST RADIATION

1. The authority citation for Part 20 continues to read as follows:

Authority: Secs. 53, 63, 65, 81, 103, 104, 161, 182, 186, 68 Stat. 930, 933, 935, 936, 937, 948, 953, 955, as amended, sec. 1701, 106 Stat. 2951, 2952, 2953 (42 U.S.C. 2073, 2093, 2095, 2111, 2133, 2134, 2201, 2232, 2236, 2297f), sec. 201, as amended 202, 206, 68 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

2. In § 20.2108, paragraph (b) is revised to read as follows:

§ 20.2108 Records of waste disposal.

(b) The licensee shall retain the records required by paragraph (a) of this section until the Commission terminates each pertinent license requiring the

record. Requirements for disposition of these records, prior to license termination, are located in §§ 30.51, 40.61, 70.51, and 72.80 for activities licensed under these parts.

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

3. The authority citation for Part 30 continues 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, 2233, 2236, 2282); sec. 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. 2951 as amended by Pub. L. 102-486, sec. 2902, 106 Stat. 3123, (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).

4. In § 30.35, the introductory text of paragraph (g) is revised to read as follows:

§ 30.35 Financial assurance and recordkeeping for decommissioning.

(g) Each person licensed under this part or parts 32 through 36 and 39 of this chapter shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with § 30.34(b), licensees shall transfer all records described in this paragraph to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Commission considers important to decommissioning consists of—

5. In § 30.36, paragraph (k)(4) is added to read as follows:

§ 30.36 Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.

(k) * * *
(4) Records required by § 30.51 (d) and (f) have been received.

6. In § 30.51, paragraphs (d), (e), and (f) are added to read as follows:

§ 30.51 Records.

(d) Prior to license termination, each licensee authorized to possess radioactive material with a half-life greater than 120 days, in an unsealed form, shall forward the following records to the appropriate NRC Regional Office:

(1) Records of disposal of licensed material made under §§ 20.2002 (including burials authorized before January 28, 1981¹), 20.2003, 20.2004, 20.2005; and

(2) Records required by § 20.2103(b)(4).

(e) If licensed activities are transferred or assigned in accordance with § 30.34(b), each licensee authorized to possess radioactive material, with a half-life greater than 120 days, in an unsealed form, shall transfer the following records to the new licensee and the new licensee will be responsible for maintaining these records until the license is terminated:

(1) Records of disposal of licensed material made under §§ 20.2002 (including burials authorized before January 28, 1981¹), 20.2003, 20.2004, 20.2005; and

(2) Records required by § 20.2103(b)(4).

(f) Prior to license termination, each licensee shall forward the records required by § 30.35(g) to the appropriate NRC Regional Office.

PART 40—DOMESTIC LICENSING OF SOURCE MATERIAL

7. The authority citation for Part 40 continues 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); sec. 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); sec. 275, 92 Stat. 3021, as amended by Pub. L. 97-415, 96 Stat. 2067 (42 U.S.C. 2022).

Section 40.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 102-486, sec. 2902, 106 Stat. 3123, (42 U.S.C. 5851). Section 40.31(g) also issued under sec. 122, 88 Stat. 939 (42 U.S.C. 2152). Section 40.46 also issued under sec. 184, 68

¹ A previous § 20.304 permitted burial of small quantities of licensed materials in soil before January 28, 1981, without specific Commission authorization. See § 20.304 contained in the 10 CFR, parts 0 to 199, edition revised as of January 1, 1981.

¹ A previous § 20.304 permitted burial of small quantities of licensed materials in soil before January 28, 1981, without specific Commission authorization. See § 20.304 contained in the 10 CFR, parts 0 to 199, edition revised as of January 1, 1981.

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).

8. In § 40.36, the introductory text of paragraph (f) is revised to read as follows:

§ 40.36 Financial assurance and recordkeeping for decommissioning.

(f) Each person licensed under this part shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with § 40.41(b) licensees shall transfer all records described in this paragraph to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Commission considers important to decommissioning consists of—

9. In § 40.42, paragraph (k)(4) is added to read as follows:

§ 40.42 Expiration and termination of license and decommissioning of sites and separate buildings or outdoor areas.

(k) * * *

(4) Records required by § 40.61(d) and (f) have been received.

10. In § 40.61, paragraphs (d), (e), and (f) are added to read as follows:

§ 40.61 Records.

(d) Prior to license termination, each licensee authorized to possess source material, in an unsealed form, shall forward the following records to the appropriate NRC Regional Office:

(1) Records of disposal of licensed material made under § 20.2002 (including burials authorized before January 28, 1981¹), 20.2003, 20.2004, 20.2005; and

(2) Records required by § 20.2103(b)(4).

(e) If licensed activities are transferred or assigned in accordance with § 40.41(b), each licensee authorized to possess source material, in an unsealed form, shall transfer the following

¹ A previous § 20.304 permitted burial of small quantities of licensed materials in soil before January 28, 1981, without specific Commission authorization. See § 20.304 contained in the 10 CFR, parts 0 to 199, edition revised as of January 1, 1981.

records to the new licensee and the new licensee will be responsible for maintaining these records until the license is terminated:

(1) Records of disposal of licensed material made under § 20.2002 (including burials authorized before January 28, 1981¹), 20.2003, 20.2004, 20.2005; and

(2) Records required by § 20.2103(b)(4).

(f) Prior to license termination, each licensee shall forward the records required by § 40.36(f) to the appropriate NRC Regional Office.

PART 61—LICENSING REQUIREMENTS FOR LAND DISPOSAL OF RADIOACTIVE WASTE

11. The authority citation for Part 61 continues to read as follows:

Authority: Secs. 53, 57, 62, 63, 65, 81, 161, 182, 183, 68 Stat. 930, 932, 933, 935, 948, 953, 954, as amended (42 U.S.C. 2073, 2077, 2092, 2093, 2095, 2111, 2201, 2232, 2233); secs. 202, 206, 88 Stat. 1244, 1246, (42 U.S.C. 5842, 5846); secs. 10 and 14, Pub. L. 95-601, 92 Stat. 2951 (42 U.S.C. 2021a and 5851) and Pub. L. 102-486, sec. 2902, 106 Stat. 3123, (42 U.S.C. 5851).

12. In § 61.30, paragraph (a)(3) is revised to read as follows:

§ 61.30 Transfer of license.

(a) * * *

(3) That any funds for care and records required by §§ 61.80 (e) and (f) have been transferred to the disposal site owner;

13. In § 61.31, paragraph (c)(3) is added to read as follows:

§ 61.31 Termination of license.

(c) * * *

(3) That the records required by §§ 61.80(e) and (f) have been sent to the party responsible for institutional control of the disposal site and a copy has been sent to the Commission immediately prior to license termination.

PART 70—DOMESTIC LICENSING OF SPECIAL NUCLEAR MATERIAL

14. The authority citation for Part 70 continues to read as follows:

Authority: Secs. 51, 53, 161, 182, 183, 68 Stat. 929, 930, 948, 953, 954, as amended, sec. 234, 83 Stat. 444, as amended sec. 1701, 106 Stat. 2951, 2952, 2953 (42 U.S.C. 2071, 2073, 2201, 2232, 2233, 2282, 2297f); secs. 201, as amended, 202, 204, 206, 88 Stat. 1242, as amended, 1244, 1245, 1246 (42 U.S.C. 5841, 5842, 5845, 5846).

Sections 70.1(c) and 70.20a(b) also issued under secs. 135, 141, Pub. L. 97-425, 96 Stat. 2232, 2241 (42 U.S.C. 10155, 10161). 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 70.81 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).

15. In § 70.25, the introductory text of paragraph (g) is revised to read as follows:

§ 70.25 Financial assurance and recordkeeping for decommissioning.

(g) Each person licensed under this part shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the Commission considers important to decommissioning consists of—

16. In § 70.38, paragraph (k)(4) is added to read as follows:

§ 70.38 Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.

(k) * * *
(4) Records required by § 70.51(b)(6) have been received.

17. In § 70.51, footnotes 2 and 3 are re-designated as footnotes 3 and 4, paragraph (b)(6) is revised, and a new paragraph (b)(7) is added to read as follows:

§ 70.51 Material balance, inventory, and records requirements.

(b) * * *
(6) Prior to license termination, licensees shall forward the following records to the appropriate NRC Regional Office:

- (i) Records of disposal of licensed material made under § 20.2002 (including burials authorized before January 28, 1981²), 20.2003, 20.2004, 20.2005;
 - (ii) Records required by § 20.2103(b)(4); and
 - (iii) Records required by § 70.25(g).
- (7) If licensed activities are transferred or assigned in accordance with

² A previous § 20.304 permitted burial of small quantities of licensed materials in soil before January 28, 1981, without specific Commission authorization. See § 20.304 contained in the 10 CFR, parts 0 to 199, edition revised as of January 1, 1981.

§ 70.32(a)(3), the licensee shall transfer the following records to the new licensee and the new licensee will be responsible for maintaining these records until the license is terminated:

- (i) Records of disposal of licensed material made under § 20.2002 (including burials authorized before January 28, 1981²), 20.2003, 20.2004, 20.2005;
- (ii) Records required by § 20.2103(b)(4); and
- (iii) Records required by § 70.25(g).

PART 72—LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE

18. The authority citation for Part 72 continues to read as follows:

Authority: Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5848); Pub. L. 95-801, sec. 10, 92 Stat. 2951, 106 Stat. 3123 (42 U.S.C. 5851); sec. 102 Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); Secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241, sec. 148, Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330-232, 1330-238 (42 U.S.C. 10162(b), 10168(c), (d)). Section 72.46 also issued under sec. 189, 68 Stat. 955 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C. 10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10165(g)). Subpart J also issued under sec. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2244, (42 U.S.C. 10101, 10137(a), 10161(h)). Subparts K and L are also issued under sec. 133, 96 Stat. 2230 (42 U.S.C. 10153) and Sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

19. In § 72.30, the introductory text of paragraph (d) is revised to read as follows:

§ 72.30 Financial assurance and recordkeeping for decommissioning.

(d) Each person licensed under this part shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. If records important to the decommissioning of a facility are kept for other purposes, reference to these

records and their locations may be used. Information the Commission considers important to decommissioning consists of—

* * * * *
20. In § 72.54, paragraph (m)(3) is added to read as follows:

§ 72.54 Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.

(m) * * *
(3) Records required by § 72.80(e) have been received.

21. In § 72.80, paragraphs (e) and (f) are added to read as follows:

§ 72.80 Other records and reports.

- (e) Prior to license termination, the licensee shall forward records required by §§ 20.2103(b)(4) and 72.30(d) to the appropriate NRC Regional Office.
- (f) If licensed activities are transferred or assigned in accordance with § 72.44(b)(1), the licensee shall transfer the records required by §§ 20.2103(b)(4) and 72.30(d) to the new licensee and the new licensee will be responsible for maintaining these records until the license is terminated.

Dated at Rockville, Maryland, this 1st day of February 1996.

For the Nuclear Regulatory Commission,
James M. Taylor,
Executive Director for Operations.
(FR Doc. 96-12166 Filed 5-15-96; 8:45 am)
BILLING CODE 7880-01-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 94-NM-82-AD; Amendment 39-8618; AD 96-10-11]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-9 and DC-8-80 Series Airplanes, Model MD-88 Airplanes, and C-9 (Military) Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to McDonnell Douglas Model DC-9 and DC-8-80 series airplanes, Model MD-88 airplanes, and C-9 (military) series airplanes, that currently requires certain inspections and structural modifications. This

APPENDIX E

Actions to be Completed by NRC Staff Upon Receipt of Licensed Facilities Notification of Intent to Cease Licensed Operations

CHECKLIST OF ACTIONS TO BE COMPLETED BY NRC STAFF
UPON RECEIPT OF LICENSED FACILITIES NOTIFICATION
OF INTENT TO CEASE LICENSED OPERATIONS

Facility Information

Facility Name: _____

Address: _____

License No.: _____

Docket No.: _____

Project Manager: _____

Date of Notification: _____

- ___ Decommissioning type determined
 - Refer to Sections 8 - 12 of the NMSS Decommissioning Handbook or see below
- ___ Licensee has complied with NRC's notification requirements
 - Refer to Section 3 and 7 of the NMSS Decommissioning Handbook and 10 CFR 30.36(d), 40.42(d), 70.38(d), or 72.54(d).
- ___ Technical Assistance Control (TAC) number for the decommissioning action assigned, if warranted
- ___ Notification is placed in the licensee's docket file and the appropriate Public Document Room(s).
- ___ Written acknowledgement of the receipt of the licensee's notification sent to licensee
- ___ Decommissioning of the facility, including the subjects outlined below, discussed with the licensee and documentation placed in docket
 - ___ The decommissioning process - Refer to Section 7 of this handbook.
 - ___ For Type I and II decommissionings the acceptable methods for demonstrating the suitability of the site for unrestricted use described in Sections 7, 8 and 9 of this handbook
 - ___ For Type II and IV decommissionings the information to be included in decommissioning plans discussed in Reg Guide 3.65 and summarized in the Decommissioning Plan Evaluation Worksheet in Appendix I
 - ___ Any additional information NRC will require to support the licensee's request to terminate the license

- The NRC requirements for providing the public with the opportunity to observed meeting between the staff and licensees as well as any potential hear or public meeting requirements applicable to the decommissioning of the facility
- Decommissioning schedule - Refer to Section 7 of this handbook and NRC's regulations at 30.36(d-h), 40.42(d-h), 70.38(d-h), or 72.54(d-j)
- Contact made with other State or Federal regulatory authorities or other groups that have an interest in the decommissioning of the facility
- External distribution list for documents pertaining to the decommissioning developed
- Need to notice the licensee's proposed action in the FR determined and a notice prepared in accordance with 10 CFR Parts 2.102 - 2.108, as appropriate

CRITERIA FOR ASSIGNING DECOMMISSIONING TYPES

Type I

- 1) The licensee possessed and used only sealed sources *and* if the most recent leak test demonstrates that the sources did not leak while in the licensee's possession (i.e., if leak tests have been $<0.005 \mu\text{Ci}$); *or*
- 2) The licensee possessed and used relatively short-lived radioactive material (i.e., $T_{1/2} \leq 60$ days) in an unsealed form *and* the maximum activity authorized under the license has decayed to less than the quantity specified in 10 CFR Part 20, Appendix C.

Type II

- 1) The licensee possessed and used only sealed sources, **but** cannot demonstrate that the sources did not leak while in the licensee's possession (i.e., leak tests are not available or indicate contamination $>0.005 \mu\text{Ci}$); *or*
- 2) The licensee possessed unsealed radioactive material with $T_{1/2} \leq 60$ days **but** the maximum activity authorized under the license has not decayed to less than the quantity specified in 10 CFR Part 20, Appendix C at the time the licensee requests license termination; *or*
- 3) The licensee possess unsealed radioactive material with $T_{1/2} \geq 60$ days but ≤ 120 days.

Type III

- 1) The decommissioning qualifies for a categorical exclusion under 10 CFR 51.22 (c) (see Appendix for guidance on determining whether a proposed action qualifies for a categorical exclusion); *and*
- 2) The licensee will decommission its facility in accordance with the NRC's criteria for unrestricted use.

Type IV

1. The decommissioning does not qualify for a categorical exclusion under 10 CFR 51.22 (c); *or*
2. The licensee intends to decommission its facility such that residual radioactive material may remain at the site in excess of the levels specified in NRC's criteria for unrestricted use.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DATE:

TO:

FROM:

Phone:

Fax:

LICENSE #:

SUBJECT: REQUEST FOR TRANSFER OR TERMINATION OF YOUR NRC LICENSE

On (insert date) you contacted the U.S. Nuclear Regulatory Commission and indicated that you wished to transfer or terminate your NRC radioactive materials license. Licensees wishing to cease licensed operations are required to transfer records important to decommissioning to either the NRC, or to the individual assuming responsibility for the license as well as ensure that their facility meets NRC's criteria for unrestricted use.

Licensees that used only sealed sources *and* the most recent leak test demonstrates that the sources did not leak while in the licensee's possession (i.e., if leak tests have been $<0.005 \mu\text{Ci}$); *or* used relatively short-lived radioactive material (i.e., $T_{1/2} \leq 60$ days) in an unsealed form *and* the maximum activity authorized under the license has decayed to less than the quantity specified in 10 CFR Part 20, Appendix C should:

1. Transfer the records discussed in NRC regulations at 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; or 70.25, 70.38, 70.51 to the USNRC at the address listed below or transfer the records to the individual assuming responsibility for the license, with a copy of the cover letter to the USNRC at the address listed below
2. Dispose of the licensed material in accordance with NRC requirements, usually by returning it the manufacturer;
3. Demonstrate to NRC that the sources never leaked, both while in your custody and upon arrival at the ultimate destination indicated on the NRC Form 314; or that the maximum activity of radioactive material authorized under your license has decayed to less than the quantity specified in 10 CFR Part 20, Appendix C
4. Submit an NRC Form 314 "Certificate of Disposition of Materials" to NRC.

If you possessed and used only sealed sources, **but** cannot demonstrate that the sources did not leak while in your possession (i.e., leak tests are not available or indicate contamination >0.005 μCi); **or** possessed unsealed radioactive material with $T_{1/2} \leq 60$ days **but** the maximum activity authorized under the license has not decayed to less than the quantity specified in 10 CFR Part 20, Appendix C at the time the licensee requests license termination; **or** possessed unsealed radioactive material with $T_{1/2} > 60$ days but ≤ 120 days you should:

1. Determine the extent of contamination at your facility;
2. Remove residual radioactive material to levels that would permit release of the facility;
3. Dispose of the licensed material in accordance with NRC requirements, usually by returning sealed sources to the manufacturer or disposing of licensed material as outlined in the NRC regulations;
4. Determine the radiological status of your facility and perform further remediation, if necessary to meet NRC's criteria (See attached for a description of the surveys that should be performed for licensees meeting the criteria discussed above).
5. Submit the results of a survey of your facility demonstrating that residual radioactive material levels meet the USNRC's criteria for unrestricted use or demonstrate that your facility, or portion of the facility, meets NRC's criteria for unrestricted use to NRC by some other means; and
6. Submit an NRC Form 314 "Certificate of Disposition of Materials" to NRC.

If you satisfy either of the following conditions you may be required to submit a Decommissioning Plan to USNRC for review and approval prior to commencing decommissioning operations

- 1) A Decommissioning Plan is required by license condition, or;
- 2) The procedures and activities necessary to carry out the decommissioning have not been approved by the Commission and these procedures could increase the potential health and safety impacts to the workers or the public.

USNRC regulations at 10 CFR 30.36(f)(1), 40.42(f)(1), and 70.38(f)(1) describe several cases when submission of a Decommissioning Plan by the licensee is required, such as when:

- Procedures would involve techniques not applied routinely during cleanup or maintenance operations
- Workers would be entering areas not normally occupied where surface contamination and radiation levels are significantly higher than routinely encountered during operation;

- Procedures could result in significantly greater airborne concentrations of radioactive materials than are present during operation;
- Procedures could result in significantly greater releases of radioactive material to the environment than those associated with operation

Note that licensees authorized under 10 CFR Part 72 must, in all cases, submit a DP to NRC at the completion of licensed operations.

If you meet either conditions requiring the submission of a Decommissioning Plan you should contact the USNRC at the address listed above.

INFORMATION THAT SHOULD BE SUBMITTED
TO NRC STAFF TO SUPPORT LICENSE TERMINATION

In performing the decommissioning of its facility the licensee should first identify any areas in the facility that were involved in licensed material use by reviewing facility records and conducting a survey of the licensed material use area. This survey should be similar to the routine contamination surveys conducted under the licensee's radiological safety plan. The licensee should then remediate all surfaces in the areas at the facility that were involved in licensed material use or storage and dispose of all radioactive material and waste as discussed in the NRC regulations at 10 CFR 20 Subpart K.

If the licensee elects to demonstrate that its facility is suitable for unrestricted use by conducting a Final Status Survey, the licensee should design the survey so as to be of sufficient scope and quality to make this demonstration. In preparing for the Final Status Survey, the licensee should establish a method to identify individual measurement/sampling points, such as establishing reference grids on each surface in the indoor area that was involved in licensed material. At a minimum, the licensee's termination survey should consist of:

- 1) 100% scanning of all surfaces in the area at the facility where licensed material was used or stored using an appropriate radiation detection instrument (including scan sensitivity);
- 2) evaluations for total and removable radioactive material at each area exhibiting elevated radiation levels or at a frequency of one wipe comprising 100 cm² per grid; and
- 3) evaluations of radiation levels at one meter above surfaces

Particular attention should be afforded any drains, air vents or other fixtures or equipment that may have become contaminated during licensed material use. This is especially significant in situations where renovations have occurred and potentially contaminated areas may be inaccessible under current conditions.

The information that should be submitted to the NRC to support the final status survey should consist of:

- 1) a brief description of the remediation activities undertaken by the licensee;
- 2) a detailed drawing of the licensed material use areas indicating the sampling locations;
- 3) a table showing the results of the radiation levels and removable contamination surveys keyed to the detailed drawing (organized by survey unit);

4) the training and qualifications of the individual(s) performing the decontamination and surveys; and

5) a description of the type of equipment used by the licensee to evaluate the wipes and perform the surveys. This description should include all information required to determine the appropriateness of the equipment for determining the radiological status of the facility such as last calibration date, type of radiations detected, sensitivity of detection, efficiency, etc.

APPENDIX F

**Materials License Termination/Retirement Form
and
Sample License Termination Letter**

Materials License Termination/Retirement Form

LICENSE #(s): _____
ADDRESS: _____

DOCKET #(s): _____
EXPIRATION DATE: _____
DATE OF CONTACT: _____
CONTACTED BY: _____
TITLE: _____
TELEPHONE: _____

LICENSE TERMINATED: _____

LICENSE TRANSFERRED: _____

LICENSE TRANSFERRED TO: Name: _____
Address: _____

Telephone: _____

BASIS FOR TERMINATION AND/OR RETIREMENT: _____

TERMINATION DOCUMENTATION

1. License termination meets Type I criteria: Y ___ N ___
- ___ Licensee used sealed sources only and the most recent leak test demonstrates that they did not leak while in the licensee's possession
 - ___ Licensee used radioactive material with $T_{1/2} \leq 60$ days and it has decayed to less than the activity in 10 CFR Part 20 Appendix C
2. License termination meets Type II criteria: Y ___ N ___
- ___ Licensee possessed and used only sealed sources but cannot demonstrate that the sources did not leak while in the licensee's possession
 - ___ Licensee possessed unsealed radioactive material with $T_{1/2} \leq 60$ days but the maximum activity authorized under the license has not decayed to less than the quantity specified in 10 CFR Part 20, Appendix C
 - ___ Licensee possessed unsealed radioactive material with $T_{1/2} > 60$ days but ≤ 120 days.
 - ___ Licensee possessed ^{14}C or ^3H but the total activity(s) and use authorized under the license warrants decommissioning under Type II (describe rationale above)

3. License termination meets Type III criteria: Y __ N __
 __ Decommissioning qualifies for a categorical exclusion under 10 CFR 51.22 (c) *and*
 __ Licensee will decommission its facility in accordance with the NRC's criteria for unrestricted use.
4. License termination meets Type IV criteria: Y __ N __
 __ Decommissioning does not qualify for a categorical exclusion under 10 CFR 51.22 (c)
 __ Licensee will decommission its facility such that residual radioactive material may remain in excess of NRC's criteria for unrestricted use.
5. Termination survey required: Y __ N __
 __ Termination survey submitted by licensee
 __ Termination survey satisfies NRC survey requirements
6. Form 314 or equivalent submitted: Y __ N __
 __ Staff verified disposition of sealed sources:
 or unsealed radioactive material
 by:
 _ letter from Form 314 recipient
 _ call to Form 314 recipient
7. Licensee transfer records discussed in 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; or 70.25, 70.38, 70.51 Y __ N __
 __ To USNRC
 __ To individual assuming responsibility for the license, with a copy of the cover letter to NRC
8. NRC closeout inspection required: Y __ N __
 __ Closeout inspection performed:
 on: _____
 Inspector: _____
9. Closeout survey performed: Y __ N __
 on: _____
 by: _____

Licensing assistant
 completing form: _____ Date: _____

or

License reviewer
 completing form: _____ Date: _____

Branch Chief: _____ Date: _____



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAMPLE LICENSE TERMINATION LETTER - Type I-III¹

License Name/Contact
Licensee Address

SUBJECT: TERMINATION OF YOUR NRC RADIOACTIVE MATERIALS LICENSE

Dear (insert licensee contact name):

On (insert date) you contacted the U.S. Nuclear Regulatory Commission and indicated that you wished to transfer or terminate your NRC radioactive materials license. The NRC staff has reviewed (insert: your sealed source leak test results, your final surveys, NRC's confirmatory surveys, any other pertinent information submitted by the licensee to support the termination of the license such as consent agreements, deed restrictions, etc. as appropriate). Based on its review, the staff has concluded that: 1) all licensable radioactive material has been removed from your facility; 2) residual radioactive material attributable to licensed activities does not exceed current NRC criteria; 3) (insert: any other pertinent information regarding the radiological status of the facility, the disposition of licensed material, or post-termination activities).

Based on these conclusions (insert, as appropriate: and the staff's Environmental Assessment dated _____ (enclosed), finding of no significant impact published in the *Federal Register* on _____) no further remediation or actions with respect to NRC regulated material is required. Your facility is suitable for unrestricted use and NRC license number (insert license number) for your facility at (insert license location) is hereby terminated.

If you have any questions, please call (insert LR/PM name) of my staff at (insert phone number).

Sincerely,

Docket No.
License No.

¹ Note that termination letters for Type IV decommissionings will need to discuss the specific conditions in the decommissioning plan, Environmental Impact Statement, or other documents developed to support the decommissioning. However, the basic format outlined above may be used to develop a letter terminating a license under Type IV decommissioning.

APPENDIX G

Procedure for Performing Acceptance Reviews

MEMORANDUM FOR: The on Attached List APR 26 1994

FROM: Robert M. Bernero, Director
Office of Nuclear Safety and Safeguards

SUBJECT: NMSS POLICY AND PROCEDURES LETTER 1-46 - PROCEDURES FOR
PREPARING FEDERAL REGISTER NOTICES FOR SITE DECOMMISSIONING
MANAGEMENT PLAN LICENSING ACTIONS

Apr 26, 1994

The purpose of this new NMSS Policy and Procedures Letter is to clarify and standardize procedures for the publication in the Federal Register of notices related to Site Decommissioning Management Plan (SDMP) actions and to the provision of the opportunity to petition for a hearing.

Multiple references in "Title 10 - Energy" of the Code of Federal Regulations require or authorize publication in the Federal Register of notice of impending licensing actions contemplated by the Nuclear Regulatory Commission. One of these references, 10 CFR 2.1205(c)(1), requires that an opportunity for a hearing must be provided in the *initial* notice relating to an application or licensing action so that timely attention may be directed toward substantive issues developed in any hearing. When a proposed decommissioning plan is required, a licensee will normally submit it as part of an application to amend its license to authorize the planned remediation. Notice of receipt of the proposed license amendment should be published in the Federal Register, and as the initial notice of the contemplated action, such publication is the appropriate occasion to offer the opportunity to petition for a hearing to allow for early consideration of issues of concern to the public. This notice shall also invite comments on those documents cited in the Federal Register notice which are relevant to the NRC review of the proposed license amendment. Although subsequent actions proposed by NRC in relation to the subject remediation plan review may require publication of additional notices in the Federal Register (e.g. preparation of a finding of no significant environmental impact), no further provision of an opportunity to petition for a hearing is required.

Please disseminate this information to appropriate staff members and ensure they adhere to these procedures. Any questions should be directed to John J. Lentz, LLDP, at 504-2038.

[Original Signed By]
Robert M. Bernero, Director
Office of Nuclear Material Safety
and Safeguards

*Original signed by
Guy A. [unclear]
for*

Enclosure: As stated

PROCEDURES FOR PREPARING FEDERAL REGISTER NOTICES FOR SITE DECOMMISSIONING
MANAGEMENT PLAN LICENSING ACTIONS

PURPOSE:

The purpose of this Policy and Procedures Letter is to establish the procedures for publication, in the Federal Register, of notices of proposed Site Decommissioning Management Plan (SDMP) licensing actions. The objective is to offer, early in the review process, an opportunity for public participation.

BACKGROUND:

Applicable Regulations

Publication of notices in the Federal Register for actions to be taken by NRC in response to application by a licensee is governed in particular by the requirements of 10 CFR 2.105(a)(9), 10 CFR 2.1205(c)(1) and 10 CFR 51.26.

Under 10 CFR 2.105(a)(9), the Commission may publish, in the Federal Register, a notice of proposed action affecting any application for a license or amendment where it determines that an opportunity for a public hearing should be afforded. Such hearing, if requested, will be a full adjudicatory hearing under Subpart G of 10 CFR Part 2.

Under 10 CFR 2.1205(c)(1), an opportunity for a hearing, under Subpart L - Informal Hearing Procedures for Adjudications in Materials and Operator Licensing Proceedings (§§ 2.1201-2.1263) of 10 CFR Part 2 - Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders, must be provided in the initial notice, published in the Federal Register, relating to an application or licensing action.

Under 10 CFR 51.26, a notice of intent is required to be published in the Federal Register whenever an environmental impact statement will be prepared by NRC. Under 10 CFR 51.35, a draft or final finding of no significant impact (FONSI) on a proposed action must also be published in the Federal Register.

Where licensing actions or orders are initiated by NRC rather than the licensee, alternate provisions under Subpart G of 10 CFR Part 2 are available for initiating the hearing process.

Decommissioning Licensing Process

The SDMP licensing process, in most cases, will involve NRC staff review of the licensee's site characterization plan, site characterization report, remediation plan, and final survey report. After approval of the licensee's final survey report, NRC staff will conduct, or contract to conduct, a confirmatory survey. In the past, the issues, of principal interest to the public, have been those that are addressed in the remediation plan. Consequently, the solicitation of public input into the reviews of remediation plans needs to be made early in the remediation plan review.

FEDERAL REGISTER PUBLICATION PROCEDURES:

In most cases, the licensee will submit a remediation plan as part of a request to amend its license to authorize remediation in accordance with the submitted plan. When this request to amend the license is received, a Federal Register notice should be published announcing consideration of the amendment request to perform remediation in accordance with the submitted plan. Since this notice is the initial notice relating to the licensing action, an opportunity to petition for a hearing, under Subpart L, would also be included in the notice. The offering of an opportunity of a hearing upon receipt of the remediation plan will enable the public to provide early input of their concerns and enable NRC staff to give appropriate consideration of these issues in the remediation plan review. The notice in the Federal Register should include citation of all documents the NRC considers relevant to the review of the license amendment and should declare that interested persons are invited to submit any comments on these documents to the NRC Project Manager, whose name, address and telephone number shall be provided. Once the notice has been published, the Project Manager should send copies of the Federal Register notice to known interest groups or individuals, noting their opportunity to comment on the listed relevant documents. If a petition for a hearing is not submitted in response to this notice, later petitions for a hearing, related to the remediation plan review, are not required to be granted. Attachment 1 includes an example of this notice, but please note that future notices will be required to provide a listing of documents considered by NRC to be relevant to the review.

At the completion of the remediation plan review, an environmental assessment will normally be prepared. If a FONSI is made or if an environmental impact statement is needed, a second Federal Register notice must be prepared. However, an opportunity to petition for a hearing, related to this action, is not required. Attachment 2 provides an example of this notice.

For SDMP sites, at the time of release of the site or termination of the license (after the remediation is performed and the final and confirmatory surveys are satisfactorily completed), a third Federal Register notice should be published to fulfill previous commitments to the Commission. This notice announces the intent of the NRC staff to release the site for unrestricted use or to terminate the license. This is a procedural action that will normally not require the preparation of an environmental assessment. A notice of opportunity to petition for a hearing is also not required. Attachment 3 provides an example of this notice.

For most cases, Federal Register notices will not be needed upon receipt of site characterization plans, site characterization reports, final survey reports, and confirmatory survey reports.

ATTACHMENT 1

(Docket No. 89-06084)

Consideration of Amendment to Pathfinder Atomic Plant License and Opportunity for Hearing Northern States Power Co.

The United States Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Byproduct Material License No. 22-08799-02 issued to Northern States Power Company (the licensee) for possession of the Pathfinder Atomic Plant located in Minnehaha County, South Dakota.

The licensee requested the amendment in a letter dated July 18, 1989, which included as enclosures a decommissioning plan, an environmental report, and a safety analysis report.

The amendment would authorize the licensee to perform final decommissioning of the fuel handling building and the reactor building in accordance with the licensee's decommissioning plan.

The fuel handling building and reactor building contain radioactivity and radioactive components, parts, and waste generated as a result of operation of the Pathfinder Atomic Plant from 1964 through 1967 to produce electricity under License No. DPR-11. The reactor was last operated in September, 1967. Subsequent to final shutdown all fuel was removed from the reactor and shipped offsite, the reactor was permanently disabled, and the facility was repowered with three package boilers burning fossil fuel. The fuel handling and reactor buildings were partially dismantled and decontaminated, placed in a safe-storage condition and isolated from the balance of plant. Following completion of these actions in 1971, the 10 CFR part 50 license was surrendered and a separate license issued pursuant to 10 CFR part 30 was amended to authorize possession only of residual radioactive materials as byproduct material.

Prior to issuance of the proposed amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended, and the Commission's regulations.

The Commission hereby provides notice that this is a proceeding on an application for a license amendment falling within the scope of subpart L, Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings, of the Commission's Rules of Practice for Domestic Licensing Proceedings in 10 CFR part 2. Pursuant to § 2.1205(a) any person whose interest

may be affected by this proceeding may file a request for a hearing. In accordance with § 2.1205(c), a request for a hearing must be filed within thirty (30) days of the date of publication of this Federal Register notice. The request for a hearing must be filed with the Office of the Secretary either:

(1) By delivery to the Docketing and Service Branch of the Office of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852;

(2) By mail or telegram addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch;

In addition to meeting other applicable requirements of 10 CFR part 2 of the Commission's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

(1) The interest of the requestor in the proceeding;

(2) How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in § 2.1205(g);

(3) The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and

(4) The circumstances establishing that the request for a hearing is timely in accordance with § 2.1205(c).

Each request for a hearing must also be served, by delivering it personally or by mail to:

(1) The applicant, Northern States Power Company, to the attention of Mr. David Musolf, Manager, Nuclear Support Services, 414 Nicollet Mall, Minneapolis, Minnesota 55401; and

(2) The NRC staff, by delivery to the Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or by mail addressed to the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Any hearing that is requested and granted will be held in accordance with the Commission's Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings in 10 CFR part 2, subpart L.

For further details with respect to the proposed action, see the licensee's request for license amendment dated July 18, 1989, which is available for inspection at the Commission's Public Document Room, 2120 L Street NW., Washington, DC.

Dated at Rockville, Maryland this 17th day of August, 1989.

For the Nuclear Regulatory Commission,
John T. Groves,
Deputy Director, Division of Low-Level Waste Management and Decommissioning, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 89-19983 Filed 8-23-89; 8:45 am]
BILLING CODE 7890-01-0

Philadelphia Electric Company

(Docket Nos. 89-352-OL-2, 50-353-OL-2 (Severe Accident Mitigation Design Alternative))

(Limerick Generating Station, Units 1 and 2; Appointment of Adjudicatory Employee)

Commissioners: Kenneth M. Carr, Chairman, Thomas M. Roberts, Kenneth C. Rogers, James R. Curtiss.

In accord with the requirements of 10 CFR 2.4, notice is hereby given that Mr. Darrel Nash, a Commission employee in the Office of Nuclear Reactor Regulation, has been appointed as a Commission adjudicatory employee within the meaning of § 2.4 to advise the Commission on issues in the above-captioned proceeding related to consideration under the National Environmental Policy Act of severe accident mitigation design alternatives.

Mr. Nash has not been engaged in the performance of any investigative or litigating function in connection with the Limerick facility or in any factually-related proceeding.

Until such time as a final decision is issued in the above-captioned matter, interested persons outside the agency and agency employees performing investigation or litigating functions in the Limerick proceeding are required to observe the restrictions of 10 CFR 2.780 and 2.781 in their communications with Mr. Nash.

It is so ordered.

Dated at Rockville, Maryland this 18th day of August, 1989.

For the Commission,
Samuel J. Chilk,
Secretary of the Commission.
[FR Doc. 89-20013 Filed 8-23-89; 8:45 am]
BILLING CODE 7890-01-0

(Docket Nos. 89-372 and 50-311)

**Public Service Electric & Gas Co.;
Correction**

54 FR 31270 published on July 27, 1989 contained exemptions to 10 CFR part 50.

ATTACHMENT 2

human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed exemption.

For further details with respect to this proposed action, see the licensee's letter dated August 25, 1989. Copies of the request for exemption are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the Ocean County Library, Reference Department, 101 Washington Street, Toms River, New Jersey 08733.

Dated at Rockville, Maryland, this 16th day of June, 1990.

For the Nuclear Regulatory Commission,
John F. Stala,
Director, Project Directorates I-4, Division of
Reactor Projects—II, Office of Nuclear
Reactor Regulation.
[FR Doc. 90-14477 Filed 6-21-90; 8:45 am]
BILLING CODE 7590-01-0

(Docket No. 89-322)

**Long Island Lighting Co.;
Environmental Assessment and
Finding of No Significant Impact**

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption to a requirement to perform periodic containment leak rate testing as prescribed in 10 CFR 50.54(o) and appendix J to 10 CFR part 50. This exemption would be granted to the Long Island Lighting Company (LILCO), the licensee for the Shoreham Nuclear Power Station (SNPS), located in Suffolk County, New York.

Environmental Assessment

Identification of Proposed Action

The proposed action would grant an exemption from the requirements of 10 CFR part 50, appendix J sections III.D.1, D.2, and D.3 to perform periodic containment leak rate testing, as requested by the licensee in its letter dated December 8, 1989. This exemption is the proposed action being considered by the Commission.

The Need for the Proposed Action

The licensee's letter of December 8, 1989 provided the following justification for an exemption from the requirements of appendix J to 10 CFR part 50 to perform periodic leak rate testing of the containment. Continuing to conduct unnecessary appendix J containment leak rate testing would result in undue hardship and costs that are not necessary for public safety. The request for an exemption from appendix J

containment leak rate testing represents an appropriate ordering of priorities and a prudent allocation of resources.

Environmental Impact of the Proposed Action

The proposed exemption does not affect the manner of current facility operation, or the risk of facility accidents. (Shoreham is currently shutdown and defueled, and the reactor vessel internals are being removed.) The possibility of environmental impact from this exemption is extremely remote. The subject containment leak rate tests are conducted during shutdown periods prior to resumption of power operations, usually following refueling. LILCO is prevented, by agreement with the State of New York, from operating Shoreham. However, should conditions change, the staff requires that containment barriers be tested and demonstrated operable prior to refueling the reactor.

The proposed exemption would not authorize construction or operation, would not authorize a change in licensed activities, nor effect changes in the permitted types or amounts of radiological effluents. Post-accident radiological releases will not differ from those determined previously, and the proposed exemption does not otherwise affect facility radiological effluents or occupational exposures. With regard to potential non-radiological impacts, the proposed exemption does not affect plant non-radiological effluents and has no other environmental impact. Therefore, the Commission concludes there are no measurable radiological or non-radiological environmental impacts associated with the proposed exemption.

Alternative to the Proposed Action

Since the Commission concluded that there is no measurable environmental impacts associated with the proposed exemption, alternatives with equal or greater environmental impacts need not be evaluated. The principal alternative to the exemption would be to require the licensee to continue conducting containment leak rate tests. Such actions would not enhance the protection of the environment or the public health and safety.

Alternative Use of Resources

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Shoreham Nuclear Power Station.

Agencies and Persons Consulted

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

Finding of No Significant Impact

The Commission has determined not to prepare an environmental impact statement for the proposed exemption. Based on the foregoing environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for exemption, dated December 8, 1989, and the NRC staff's letter dated March 18, 1990, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC and at the Shoreham-Wading River Public Library, Route 25A, Shoreham, New York 11768.

Dated at Rockville, Maryland, this 16th day of June, 1990.

For the Nuclear Regulatory Commission,
James C. Stans,
Acting Director, Project Directorates I-2,
Division of Reactor Projects—II, Office of
Nuclear Reactor Regulation.
[FR Doc. 90-14478 Filed 6-21-90; 8:45 am]
BILLING CODE 7590-01-0

(Docket No. 89-6884)

**Licensee of Environmental
Assessment of Proposed Final
Decommissioning of the Fuel Handling
Building and Reactor Building at the
Pathfinder Generating Plant and
Finding of No Significant Impact;
Northern States Power Co.**

The U.S. Nuclear Regulatory Commission (the Commission) has issued an Environmental Assessment and a Finding of No Significant Impact related to an application dated July 18, 1989 by Northern States Power Company (the applicant) for a license amendment to authorize final decommissioning of the Fuel Handling Building (FHB) and Reactor Building (RB) at the Pathfinder Generating Plant, near Sioux Falls, SD.

Environmental Assessment

Proposed Action: The proposed action is the issuance of a license amendment authorizing the applicant to perform final decommissioning of the FHB and RB at its Pathfinder Generating Plant. Nuclear power generation ended at Pathfinder in September, 1967. Subsequently, all nuclear fuel was shipped offsite, nuclear facilities were partially decommissioned and the plant was repowered with steam supplied by boilers fired by oil or natural gas. Since completion of repowering and partial decommissioning in 1971, the tower

levels of the FHB and the RB have been maintained in protected isolation with controlled access allowed only for periodic inspection and radiation surveys.

The proposed action would restore the FHB and RB to a condition allowing unrestricted use by removal of contaminated equipment, materials, hardware and concrete.

Decommissioning of the RB includes removal and transport of the reactor pressure vessel and reactor internal components by railroad to a low-level waste disposal site near Richland, WA. Following decontamination to unrestricted use conditions, the applicant would maintain and use the FHB for other purposes. The upper RB would be demolished and scrapped, and the concrete walls, floors, and foundation below grade would be buried in place. Underground cavities would be backfilled with clean material, and the surface area would be revegetated with grass.

Need for the Proposed Action: The proposed action is necessary to remove radioactive equipment, materials and concrete so that the FHB and RB need no longer be afforded protected isolation and the buildings and/or land can be returned to use for other purposes.

Environmental Impact of the Proposed Action: Expected radioactive releases to the air will be small, no more than about one millicurie, and will result in insignificant radiation doses to persons offsite. The highest dose would be via the external exposure pathway and would lead to a dose of about 0.02 millirem or less to the whole body. No liquid releases of radioactivity will be made.

Conservatively estimated projected total occupational exposures to workers (50 man-rem) will result in a potential chance of one induced cancer death of about 0.008, or about 8 chances in 1,000.

A worst-case plausible accident scenario for accidents onsite would result in no more than about 1.8 millirem to the lung of a person offsite. Exposures to onsite workers from potential accidents would be well within the occupational exposure limits for routine operations prescribed in 10 CFR part 20.

Offsite transportation accidents would have low potential consequences and a very low probability of occurrence. The probability of one of the estimated 80 truck shipments of radioactive waste being involved in an accident and fire is estimated to be 0.0007, or about 7 chances in 10,000. The chance of an accident with fire for the railroad train transporting the reactor pressure vessel is about 0.00024, or less than 3 chances in 10,000. Even in the

event of one of these low-probability accidents, resulting radiation doses would be well within 10 CFR part 20 limits for annual occupational exposure.

Nonradiological impacts of all kinds are negligible.

Conclusion: On the basis of the NRC staff's evaluation of the applicant's Environmental Report, and further analysis of the environmental impacts of the proposed action as set forth in the staff's Environmental Assessment, the staff concludes that the proposed action will not result in any significant environmental impact.

Alternatives to the Proposed Action: The Environmental Assessment considers the following alternatives: no action, delayed action, modified action. Modifications considered included: demolition and burial of the FHB, as is proposed for the RB; complete removal of the RB from the site, including all below-grade concrete walls and floors; entombment of the RB; and alternative waste transportation methods. The alternatives were generally more costly, had greater impacts and lacked significant benefits compared to the proposed action. Transportation of radioactive waste by railroad appeared favorable compared to truck transportation, as predicted occupational and population radiation exposures were both reduced. However, the resulting impacts from either transportation mode are small and uncertain.

Alternative Use of Resources: The proposed action would result in the irreversible use of energy resources in the conduct of decommissioning activities and the transportation of waste materials for disposal. A small amount of land at the low-level waste disposal site would be irreversibly committed for waste disposal. There are no reasonable alternatives to these resource uses, and the proposed action does not involve any unresolved conflicts concerning use of available resources.

Agencies and Persons Consulted, and Sources Used: The Environmental Assessment was prepared entirely by staff of the U.S. Nuclear Regulatory Commission. No other agencies or persons were consulted. No other sources were used beyond those identified as references in the staff's Environmental Assessment.

Finding of No Significant Impact: The Commission's staff has prepared an Environmental Assessment evaluating the environmental impacts related to the proposed licensing action. The Environmental Assessment has examined the radiological impacts associated with planned operations and

potential accidents, both onsite and offsite, for both the general population and decommissioning and waste transportation workers. As the Environmental Assessment has not identified any significant environmental impact associated with the proposed licensing action, the Commission's staff has concluded that a Finding of No Significant Impact is justified and appropriate.

The Environmental Assessment is available for public inspection and copying at the Commission's Public Document room, located at 2120 L Street NW., Washington, DC. Single copies of the Environmental Assessment may be obtained by calling (301) 492-3435, or writing to the Chief, Regulatory Branch, Division of Low-Level Waste Management and Decommissioning, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

Dated at Rockville, Maryland, this 15th day of June, 1990.

For the Nuclear Regulatory Commission,

John H. Austin,

Acting Chief, Regulatory Branch, Division of Low-Level Waste Management and Decommissioning.

(FR Doc. 90-14675 Filed 6-21-90; 8:45 am)
GSA GEN. REG. NO. 272-01-0

(DocId: 90-05-000)

**Virginia Electric and Power Co.;
Environmental Assessment and
Finding of No Significant Impact**

The U.S. Nuclear Regulatory Commission (the Commission) is considering the issuance of an exemption from the requirements of Appendix J to 10 CFR part 50 to Virginia Electric and Power Company (the licensee) for the Surry Power Station, Unit No. 1, located in Surry County, Virginia.

Environmental Assessment

Identification of Proposed Action

The proposed exemption would grant a one-time relief from the schedular requirements of 10 CFR part 50, appendix J, paragraph III.D.3 to perform a Type C test within a 2-year interval. In addition, related changes to the Technical Specifications would be made. The requested exemption would allow the licensee to defer the Type C testing until the next refueling outage scheduled for early October 1992, but no later than December 31, 1992.

The licensee's request for exemption and bases therefor are contained in a letter dated January 6, 1990, as clarified on March 28 and April 20, 1990.

ATTACHMENT 3

the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at Exeter Public Library, 47 Front Street, Exeter, New Hampshire 03833. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or, an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) The nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of

the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, by the above date. Where petitions are filed during the last 10 days of the notice period, it is suggested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to Mr. John F. Stolz: petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this Federal Register notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Thomas Dignan, Esquire, Ropes & Gray, One International Place, Boston, Massachusetts 02110-2624, attorney for the licensee.

Non timely filings of petitions for leave to intervene, amended petitions,

supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

If a request for a hearing is received, the Commission's staff may issue the amendment after it completes its technical review and prior to the completion of any required hearing if it publishes a further notice for public comment of its proposed finding of no significant hazards consideration in accordance with 10 CFR 50.91 and 50.92.

For further details with respect to this action, see the application for amendment dated November 23, 1993, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the local public document room located at Exeter Public Library, 47 Front Street, Exeter, New Hampshire 03833.

Dated at Rockville, Maryland, this 10th day of January 1994.

For the Nuclear Regulatory Commission,
Alexander W. Dreserick,
Acting Director, Project Directorates I-4,
Division of Reactor Projects—II/III, Office of
Nuclear Reactor Regulation.
[FR Doc. 94-1099 Filed 1-14-94; 8:45 am]
BILLING CODE 789-01-0

License Termination for the Old Vic, Inc., Site in Cleveland, OH

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of license termination.

This notice is to inform the public that the United States Nuclear Regulatory Commission (the Commission) is terminating Byproduct Material License Number 31-26394-01 issued to Old Vic, Inc. (formerly Victoreen Incorporated) in Cleveland, Ohio. Victoreen Incorporated (Victoreen) used radioactive materials at its Woodland Avenue facility, for conducting research, instrument calibration, and manufacturing of electronic components, from 1965 until 1987. Victoreen began decommissioning the facility in October 1988. To clarify ownership of the facility and the responsibility for decommissioning, on March 30, 1992, the Commission issued a license to Old Vic, Inc., and terminated Victoreen's license. The Old Vic, Inc., site on Woodland Avenue is

listed on the Commission's Site Decommissioning Management Plan. In November 1993, Old Vic, Inc., completed the decommissioning. Based on the remedial actions taken by the licensee, the Commission's staff's review of the licensee's termination surveys, and the results of the Commission's confirmatory surveys, the Commission concludes that decommissioning activities are complete and the site is suitable for unrestricted use.

This termination will be reopened only if additional contamination, or noncompliance with the decommissioning plan, is found indicating a significant threat to public health and safety. Noncompliance would occur if the licensee had not complied with an approved decommissioning plan or had provided false information.

For the Nuclear Regulatory Commission.

Dated at Rockville, Maryland this 11th day of January 1994.

John H. Austin,

Chief, Decommissioning and Regulatory Issues Branch, Division of Low-Level Waste Management and Decommissioning, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 94-1097 Filed 1-14-94; 8:45 am]

BILLING CODE 7530-01-2

[Docket No. 80-333]

Power Authority of the State of New York; Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-59 issued to the Power Authority of the State of New York (the licensee) for operation of the James A. FitzPatrick Nuclear Power Plant located in Oswego County, New York.

The proposed amendment would add Limiting Conditions for Operation (LCO) and Surveillance Requirements to Tables 3.12.1, "Water Spray/Sprinkler Protected Areas", and 4.12.1, "Water Spray/Sprinkler System Tests" and clarify the associated Bases to reflect the installation of a new full area fire suppression system in the east and west cable tunnels. This new full area fire suppression system was installed because the previous sprinkler system did not provide coverage to some cable trays and the sprinkler head orientation did not provide full coverage of the cable trays where it was installed. The

proposed amendment would also correct other portions of Tables 3.12.1 and 4.12.1 for consistency with changes made to reflect the east and west cable tunnel modification.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

Operation of the FitzPatrick plant in accordance with the proposed Amendment would not involve a significant hazards consideration as defined in 10 CFR 50.92, since it would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes revise the Technical Specifications to incorporate a modification to the James A. FitzPatrick Fire Protection System and to make existing Technical Specifications consistent with the specifications proposed for the modification. The modification will improve the ability of the plant's fire protection system to detect and suppress fires. The modified system has been designed, analyzed and constructed in accordance with fire protection system requirements. These changes to the Technical Specifications assure that the modified system is operable by periodic surveillance and that required actions are taken if it is not available. The surveillance requirements meet or exceed past requirements.

2. Create the possibility of a new or different kind of accident from those previously evaluated.

The only potential for a new or different type of accident arises from different failure mechanisms of the system. An analysis of flooding has demonstrated that there are no associated failures of shutdown equipment. The new system has been designed and constructed so that there is no damage to safety related equipment due to missiles or water spray. The modification to the fire protection system provides additional protection for possible fires in the east and west cable tunnels through increased spray coverage. There are no changes to plant operations or operating procedures other

than Surveillance Requirements. The Surveillance Requirements are consistent with past plant practices and industry codes and standards.

3. Involve a significant reduction in the margin of safety.

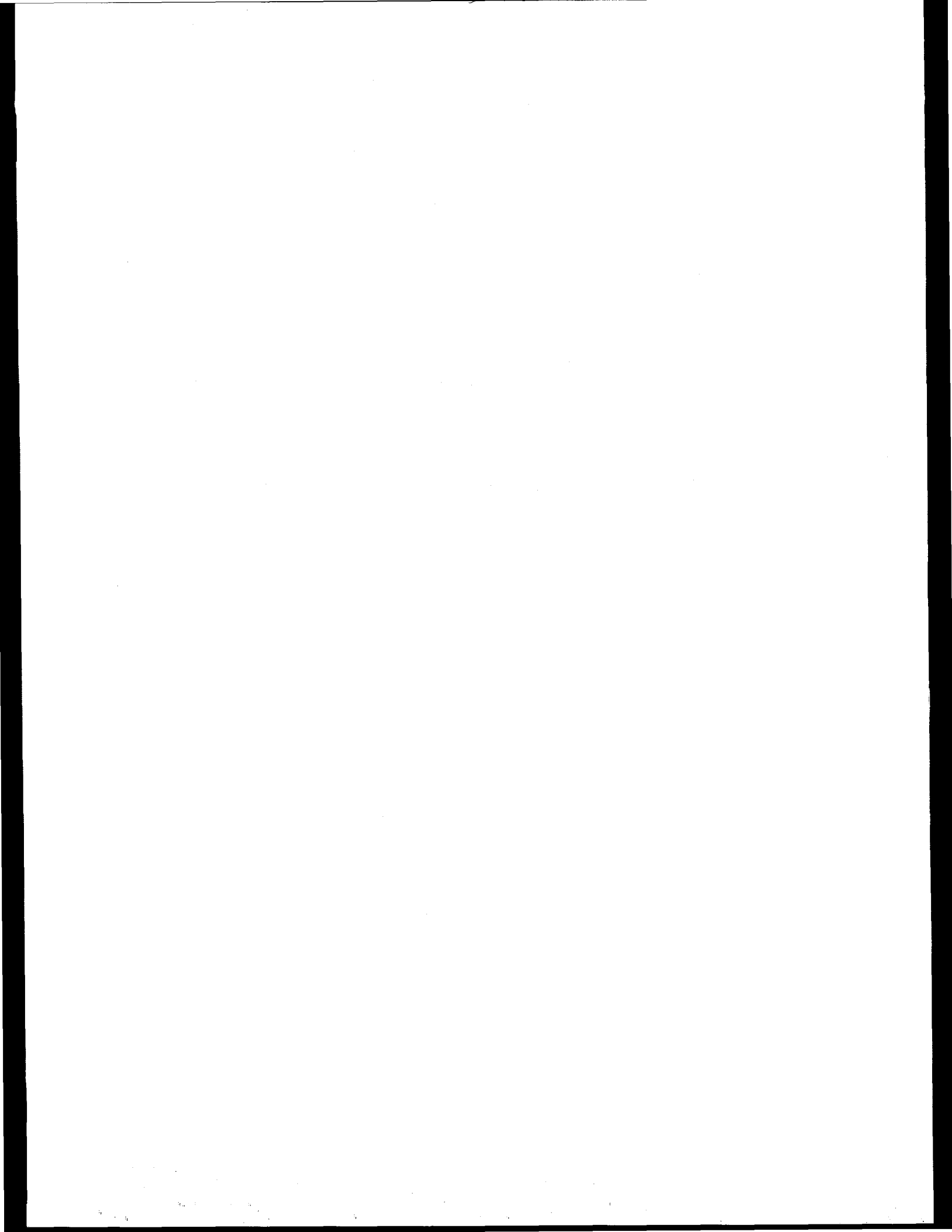
The piping has been designed and constructed to prevent damage to safety related equipment due to missiles or water spray during a seismic event. The modification improves the plant's capability to detect and suppress fires. The potential for flooding or water damage has been evaluated and does not result in failure of shutdown equipment. The LCO and Surveillance Requirements meet or exceed past practices. This change results in no reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the Federal Register a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Rules Review and Directives Branch, Division of Freedom of Information and Publications Services Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this Federal Register notice. Written comments may also be delivered to room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments



APPENDIX H

NEPA Determination Worksheet

NEPA DETERMINATION WORKSHEET

In order to determine the appropriate actions that must be taken to ensure compliance with the National Environmental Policy Act and NRC regulations at 10 CFR 51, answer the following questions:

- 1) Is the action listed in 10 CFR 51.22(c) or (d)?
- 2) Has the Commission, by rule or regulation, declared the action does not have a significant effect on the human environment and has declared that the action belongs to a category of actions that are categorical exclusions?

If the answer to either of the above questions is yes the action is eligible for a categorical exclusion, If the answer to either of the above questions is no, answer the following questions.

- 3) Is the action a major Federal action affecting the quality of the human environment²?
- 4) Has the Commission determined that the action requires the development of an Environmental Impact Statement?
- 5) Is the action listed in 10 CFR 51.20(b)(1-14)?

If the answer to any of the above questions is yes, an EIS may be required. In order to determine whether an EIS is required the LR/PM shall prepare an EA. The development of an EA can be omitted if the staff anticipates that an EIS will be required. If the EA indicates that the proposed action will have an effect on the quality of the human environment, an EIS must be prepared. If the EA indicates that the action will not have a significant effect on the quality of the human environment the LR/PM shall prepare a Finding of No Significant Impact (FONSI).

If the answer to questions 3-5 is no, an EA is required. If the EA indicates that the proposed action will have an effect on the quality of the human environment an EIS must be prepared. If the EA indicates that the action will not have a significant effect on the quality of the human environment the LR/PM shall prepare a FONSI.

² Approval of a decommissioning plan, or portion of a decommissioning plan such as a remediation plan, that involves the release of a facility for other than unrestricted use would be considered a major Federal action affecting the quality of the human environment.

PROCEDURE FOR DETERMINING
WHETHER A PROPOSED DECOMMISSIONING ACTION
QUALIFIES FOR A CATEGORICAL EXCLUSION

A Categorical Exclusion is defined as a category of actions which do not individually or cumulatively have a significant impact on the human environment and which the NRC has found to have no such effect in accordance with the procedures set out in 10 CFR 51.22.

10 CFR 51.22(c)(14) states that the issuance, amendment, or renewal of materials licenses issued pursuant to 10 CFR Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70 authorizing these activities listed in 51.22(c)(14)I-xv are actions that the Commission has determined qualify for a categorical exclusion. 10 CFR 51.22(c)(14)xvi also states that any use of source, special nuclear or byproduct material not listed in 55.22(c)(14) I-xv which involve quantities and forms of source, special nuclear or byproduct material similar to those listed also qualify for a categorical exclusion.

In order to determine whether a proposed decommissioning action qualifies for a categorical exclusion, the NRC staff should answer the following questions:

1. Is the proposed decommissioning action to issue, amend or renew a materials license issued pursuant to Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, or 70?
2. Is the activity for which the license was issued listed in 10 CFR 51.22(c)(14)I-xv?

If the answer is yes to both questions, the action qualifies for a categorical exclusion. If the answer is no to either question, answer the following questions:

1. Is the proposed use of the source, special nuclear or byproduct material similar in form to that found in the uses listed in 10 CFR 51.22(c)(14)I-xv?
2. Is the proposed use of the source, special nuclear or byproduct material similar in quantity to that found in the uses listed in 10 CFR 51.22(c)(14)I-xv?

If the answer is yes to both questions, the proposed action qualifies for a categorical exclusion. If the proposed action qualifies for a categorical exclusion, the NRC staff will review the decommissioning using the Type I, II, or III review.

If the answer is no to either question, the proposed action does not qualify for a categorical exclusion and the staff will use the Type IV decommissioning review.

APPENDIX I

NMSS Policy and Procedures Letter 1-46

**"Procedures for Preparing *Federal Register* Notices
for SDMP Licensing Actions"**

Dear Sir,

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above matter.

I am sorry to hear that you are unable to attend the meeting on the 15th inst. but I trust that you will be able to attend the meeting on the 22nd inst.

I am, Sir, very respectfully,
Yours obedient servant,
J. H. [Name]

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above matter. I am sorry to hear that you are unable to attend the meeting on the 15th inst. but I trust that you will be able to attend the meeting on the 22nd inst.

I am, Sir, very respectfully,
Yours obedient servant,
J. H. [Name]

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I am, Sir, very respectfully,
Yours obedient servant,
J. H. [Name]

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I am, Sir, very respectfully,
Yours obedient servant,
J. H. [Name]



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555-0001

June 14, 1996

MEMORANDUM TO: Those on the Attached List

FROM: Donald A. Cool, Director
Division of Industrial and
Medical Nuclear Safety, NMSS

SUBJECT: POLICY AND GUIDANCE DIRECTIVE PG 1-22,
POLICY AND CRITERIA FOR INITIAL PROCESSING OF
INCOMING LICENSING ACTIONS

This policy and guidance directive (P&GD) provides the policy and criteria for procedures to expedite the processing of incoming licensing actions. The policy and criteria have been developed: (1) to ensure that licensing actions receive, at a minimum, an administrative review within an established time frame; (2) to ensure that licensees are informed, in a timely manner, of any administrative deficiencies in their incoming requests, so that any additional information can be submitted prior to the request being forwarded for technical review; and (3) to identify actions where licensee's have requested an expedited review based on safety-significant concerns or business reasons.

The regions are to begin using this draft guidance immediately to develop and implement procedures for performing an initial administrative review of all incoming licensing actions.

BACKGROUND

The U.S. Nuclear Regulatory Commission receives more actions for routine review than staff can address completely at the time of receipt. These include such items as applications for various types of licensing actions for materials and fuel cycle licensees, requests for licensing or certification of storage and transportation casks, requests for sealed source and/or device registration, and decommissioning plans. Failure to perform timely reviews can result both in the NRC offices being unaware of actions that require an expedited review because of safety-significant or business reasons and in licensees not being informed in a timely manner of the receipt, status, and estimated review schedules for their requests.

The main NRC goal should continue to be completing the review of the licensing actions in accordance with the policy and procedure letters and P&GDs appropriate for the different program areas.

CONTACT: Diane S. Flack, NMSS
(301) 415-5681

However, in those cases where it is anticipated that neither the action can be completed nor the deficiency letter can be issued within 30 days, an administrative review of the request is to be performed and an acknowledgement letter documenting the receipt of the action and the results of this review is to be provided to the licensee within 30 days. This ensures that some type of action takes place on all incoming licensing requests within 30 days.

The generic nature of the guidance for the procedures for an initial administrative review recognizes the fact that the NRC regional offices encompass a diverse range of licensing and related program areas, and should provide the flexibility to develop procedures that are suitable for the types of licensing performed by each review group. All addressees should review the following policy, use it to develop specific procedures for each type of licensing action in their program area, and disseminate the information to the staff, as appropriate. The policy and criteria outlined below are to be followed for all incoming licensing actions, even if the NRC regional office anticipates that the action will require technical assistance from headquarters.

POLICY

All procedures for processing licensing actions in the NRC regional offices are to remain as set out in previous P&GDs, with one exception. For those requests where the licensing action will not be completed nor a deficiency letter sent to the licensee within 30 days of receipt of the request, procedures are to be followed that meet the criteria outlined below. It is expected that these procedures can be performed by administrative staff or a licensing assistant.

Within 30 days¹ of receipt of a request for any licensing action, the NRC regional offices should perform an administrative review of the request to:

- Determine that all necessary sections of the application form are completed and the form has been signed by the applicant's certifying official.
- If the applicant has identified that certain documents are attached as part of the application, verify that, in fact, those attachments are included in the submittal.
- Identify any requests for expedited review for safety-significant concerns (e.g., change in the radiation safety officer or amendment requests resulting from identification of safety-significant violations) or business reasons (e.g., change in ownership or other financial concerns).

¹This deadline may be other than 30 days if a different time were previously agreed upon with a specific group of licensees (e.g., the current agreement between NRC staff and the U.S. Department of Energy that acceptance reviews for high level waste repository applications will be completed in less than 90 days).

- For license renewals, identify if the licensee requests any amendments or new authorizations that may need to be expedited by a license amendment rather than being delayed for review of the renewal application.

After the review, an acknowledgment letter (attached) is to be sent to the applicant to:

- Acknowledge that the request for a licensing action has been received.
- Clearly inform the licensee that the submittal has undergone an initial processing which is an administrative review.
- Note any administrative deficiencies/omissions that were identified during the initial review and that could delay the complete review of the licensee's action by the technical reviewer.
- Inform the licensee that the technical review may identify additional omissions in the submitted information, technical issues that require additional information, or policy/technical issues that require coordination with headquarters or other regional offices.
- Provide the licensee with an estimated time for completion of the licensing action. These estimates need only be estimates for types of licensing actions (i.e., a specific date does not have to be estimated for each licensing action). The estimated time for completion should account for any request for an expedited review and be in accordance with policy and procedure letters, P&GDs, or previously agreed upon times for specific program areas.
- Inform the licensee that a copy of its correspondence has been forwarded to the License Fee and Accounts Receivable Branch for fee processing.

RESOURCES

These procedures should result in only limited impact on the administrative staff and/or licensing assistants and allow the regional offices to continue to use their full time equivalent positions to complete licensing actions.

Attachment: Sample Acknowledgment Letter

MEMORANDUM FOR: Those on Attached List

DATE: June 14, 1996

DRAFT P&GD PG 1-22 - POLICY AND CRITERIA FOR INITIAL PROCESSING OF INCOMING
LICENSING ACTIONS

C. W. Hehl, Director
Division of Nuclear Materials Safety, RI

Bruce S. Mallett, Director
Division of Nuclear Materials Safety, RII

Cynthia D. Pederson, Director
Division of Nuclear Materials Safety, RIII

Ross A. Scarano, Director
Division of Nuclear Materials Safety, RIV

Larry W. Camper, Chief
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Josephine M. Piccone, Acting Chief
Operations Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Margaret V. Federline, Acting Director
Division of Waste Management, NMSS

SAMPLE ACKNOWLEDGMENT LETTER

Mail Control No. _____
License No. _____

Name
Address

SUBJECT: ACKNOWLEDGMENT OF REQUEST FOR LICENSING ACTION

REF: Letter Application Dated Received
 ___/___/___.

Dear Sir or Madam:

1. We have completed the initial processing, which is an administrative review, of your application for a(an):
 new amendment renewal termination
 registration certification licensing action.
2. During the initial processing, no some omissions/deficiencies were identified. These deficiencies include _____

_____ . The identified information should be provided within 30 days of the date of this letter, so that your request can be forwarded for technical review. Please note that the technical review may identify additional omissions in the submitted information or technical issues that require additional information.

3. If applicable, insert one of the following statements regarding the estimated time for completion of the licensing action:
 - a. New and amendment actions are normally processed within 90 days, unless the technical review identifies major deficiencies, or policy issues requiring input and coordination with other offices.
 - b. Renewal actions are normally processed within 180 days. However, under timely filing (before expiration) your license will not expire until final action has been taken by this office.
 - c. Termination actions are normally processed within 90 days, unless confirmatory surveys after decontamination/ decommissioning activities are involved.

In addition, the letter should acknowledge any request for an expedited review for safety-significant concerns or business reasons.

Attachment

4. A copy of your correspondence has been forwarded to our License Fee and Accounts Receivable Branch, Office of the Controller, who will contact you separately if the appropriate license fee has not been submitted for your request, or for billing if your request is subject to full cost recovery.

Any correspondence about this application should reference the control number.

Sincerely,

May 23, 1996

Mr. Anthony Campitelli
Manager, Environmental Affairs
Cabot Performance Materials
P.O. Box 1608
Boyertown, PA 19512

Dear Mr. Campitelli:

I am writing to notify you that the U.S. Nuclear Regulatory Commission has initiated the review of the Revere Site Decommissioning Plan and request for a license amendment, dated April 25, 1996. We will issue a Federal Register notice, in accordance with our administrative procedures, stating that we are commencing the review.

We have conducted a completeness review and have determined that the information provided is sufficient to begin the technical review. This completeness review does not reflect the technical adequacy of the information provided. As discussed during our May 15, 1996, phone conversation, we may periodically be requesting additional information as a result of our technical review.

Should you have any questions, please feel free to contact me at (301) 415-6635.

Sincerely,
[Original signed by]
Judith M. Greenwald, Project Manager
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety and
Safeguards

Docket No.: 40-9027
License No.: SMC-1562



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

MEMORANDUM TO: David L. Meyer, Chief
Rules Review and Directives Branch
Division of Freedom of Information
and Publication Services
Office of Administration

FROM: Michael F. Weber, Chief
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

SUBJECT: NOTICE OF CONSIDERATION OF AMENDMENT REQUEST
FOR DECOMMISSIONING THE BABCOCK AND WILCOX
FACILITY IN PARKS TOWNSHIP, PENNSYLVANIA, AND
OPPORTUNITY FOR A HEARING

Attached please find one signed original of the subject *Federal Register* notice for your transmittal to the Office of the Federal Register for publication. Also attached are five copies of the signed notice and a 3.5" diskette with the notice in WordPerfect.

Docket No. 70-364
License No. SNM-414

Attachments: As stated

Contact: Dominick A. Orlando, NMSS
415-6749

NUCLEAR REGULATORY COMMISSION

[Docket No.: 070-364]

Consideration of Amendment Request for Decommissioning the Babcock and Wilcox Facility in Parks Township, Pennsylvania, and Opportunity for a Hearing

AGENCY: Nuclear Regulatory Commission

ACTION: Notice of Consideration of Amendment Request for Decommissioning the Babcock and Wilcox Facility in Parks Township, Pennsylvania, and Opportunity for a Hearing

The U.S. Nuclear Regulatory Commission is considering issuance of a license amendment to Source Material License No. SNM-414 (SNM-414), issued to the Babcock and Wilcox Company, Pennsylvania Nuclear Service Operations (the licensee), to authorize decommissioning of its former plutonium processing facility in Parks Township, Pennsylvania.

The licensee has been decommissioning the buildings at the Parks Township facility in accordance with the conditions discussed in SNM-414. On January 26, 1996, the licensee submitted a site decommissioning plan (SDP) to NRC for review that summarized the decommissioning activities that will be undertaken to remediate the building slabs, basements, sub-surface utilities and soil at the Parks Township facility. Radioactive contamination at the licensee's Parks Township facility discussed in the SDP consists of soils and building rubble contaminated with transuranics and byproduct material resulting from licensed operations that occurred from the late 1950s until the early 1990s.

The NRC will require the licensee to remediate the Parks Township facility to meet NRC's decommissioning criteria, and during the decommissioning activities, to maintain effluents and doses within NRC requirements and as low as reasonably achievable.

Prior to approving the decommissioning plan, NRC will have made findings required by the Atomic Energy Act of 1954, as amended, and NRC's regulations. These findings will be

documented in a Safety Evaluation Report and an Environmental Assessment. Approval of the SDP will be documented in an amendment to SNM-414.

The NRC hereby provides notice that this is a proceeding on an application for amendment of a license falling within the scope of Subpart L "Informal Hearing Procedures for Adjudication in Materials Licensing Proceedings," of NRC's rules and practice for domestic licensing proceedings in 10 CFR Part 2. Pursuant to §2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing in accordance with §2.1205(c). A request for a hearing must be filed within thirty (30) days of the date of publication of this *Federal Register* notice.

The request for a hearing must be filed with the Office of the Secretary either:

1. By delivery to the Docketing and Service Branch of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738; or
2. By mail or telegram addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Attention: Docketing and Service Branch

In addition to meeting other applicable requirements of 10 CFR Part 2 of the NRC's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

1. The interest of the requester in the proceeding;
2. How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in §2.1205(g);
3. The requester's areas of concern about the licensing activity that is the subject matter of the proceeding; and
4. The circumstances establishing that the request for a hearing is timely in accordance with §2.1205(c).

In accordance with 10 CFR §2.1205(e), each request for a hearing must also be served, by delivering it personally or by mail, to:

1. The applicant, Babcock and Wilcox Company, R. D. 1, Box 355, Vandergrift, PA 15690 Attention: Mr. Don K. Sgarlata; and

2. The NRC staff, by delivery to the Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or by mail, addressed to the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

For further details with respect to this action, the site decommissioning plan is available for inspection at the NRC's Public Document Room, 2120 L Street N.W., Washington, D.C. 20555.

Dated at Rockville, Maryland, this day of October, 1996.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael F. Weber, Chief
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

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APPENDIX J

Worksheet for Evaluating and Documenting the NRC Staff's Review of Decommissioning Plans under Type III Decommissionings

1950

1951

1952

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1960

1961

EVALUATION OF DECOMMISSIONING PLAN

Licensee: _____ License No.: _____
_____ Docket No.: _____

Licensee Contact: _____ Phone: _____
Date Submitted: _____ Approved: _____
Reviewed By: _____

I. Decommissioning Objective, Activities and Tasks

A. Objective

- 1. Objective clearly stated
- 2. Objective is DECON alternative (e.g., removal and disposal of all radioactivity in excess of levels which would permit release of the facility for unrestricted use)
- 3. Fixed, removable, soil and other unrestricted release contamination limits clearly identified and comply with requirements
- 4. Objective is other than DECON alternative (e.g., SAFSTOR)

B. Activities and Tasks

- 1. Major tasks/activities identified
- 2. Includes decontamination/dismantling of structures/equipment considered relevant to decommissioning per 30.35(g)(2), 40.36(f)(2), 70.25(g)(2)

II. Plan Description

A. Facility

- 1. Maps, diagrams, drawings provided
- 2. Potential contaminants identified
- 3. Areas/systems potentially/known to be contaminated clearly identified
 - Radiation sources that are basis for radiation protection identified
 - Described by radioactivity level and location
 - Major sources located on maps/drawings

Decommissioning Plan Evaluation
Licensee: _____
Docket No.: _____

License No.: _____

- 4. Licensed material use history
 - locations where material used/stored
 - radionuclides identified
 - description of operations
 - operational radiation/contamination levels
 - effluent release points
 - facility modifications
- 5. Incident history that could affect decommissioning safety
 - Spills, releases, etc. resulting in significant contamination identified
 - System/equipment design in high rad areas
 - Normally inaccessible systems/equipment that may be contaminated
 - Excessively contaminated areas
- 6. Confirm or deny burial at site

B. Previous Surveys

- 1. Characterization/scoping surveys performed
- 2. Results of surveys included in plan
- 3. Assessment of residual radioactive contamination acceptable (contamination levels and locations clearly identified)

C. Decommissioning Activities

- 1. Methods for accomplishing decommissioning activities acceptable
- 2. Methods demonstrate compliance with ALARA concept
- 3. Worker and public safety adequately protected
- 4. Credible accidents considered
- 5. Quantity of radioactive material which could be potentially released adequately estimated
- 6. Potential worker and public dose assessments/estimates adequate

D. Procedures

- 1. Committed to conduct decommissioning activities/tasks in accordance with written procedures approved by licensee management.
- 2. Control system that ensures written procedures prepared, reviewed, revised, approved, and implemented described.

E. Schedules

- 1. For major activities, relationship between activities and tasks shown
- 2. Schedules for accomplishing interrelated activities and tasks presented
- 3. Schedules/diagrams clearly indicate estimated time for completion of decommissioning
- 4. Schedule indicates decommissioning to be completed as soon as is reasonable

III. Decommissioning Organization and Responsibilities

- a. Organization described
- b. Decommissioning safety related positions identified and functions described
- c. Qualifications of personnel in safety related positions described
- d. Corporate and on-site personnel identified

IV. Training

- a. Training program includes general and specific radiological safety training for operators, contractor personnel, and other personnel
- b. Scope of training is adequate for each target audience group
- c. Records of training described/maintained

V. Contractor Assistance

- a. Contractor used to perform all or some of decommissioning activities
- b. Contracting organization name, address and license number provided
- c. Work to be performed by licensee versus that performed by contractor clearly identified
- d. Licensee/contractor relationship/responsibilities clear
- e. Contractor qualified to perform decommissioning work
- f. Contractor/licensee administrative controls adequate to ensure health and safety of all workers and public

VI. ALARA Program

- a. Stated ALARA policy for individual/collective exposure
- b. Management positions responsible for ALARA identified
- c. Equipment, techniques, and practices used in meeting standards for protection against radiation, including ALARA described
 - 1. Work activity control programs to minimize worker exposure (RWP)
 - 2. Program to control sources and minimize spread of contamination
 - 3. Respiratory protection program
 - 4. Program to control handling/storage of material
 - 5. Occupational exposure estimate, in man-rem, for each decommissioning activity

VII. Health Physics Program

A. Quality Assurance Program

- 1. Audits, inspections, management reviews by site personnel
- 2. Audits, inspections, management reviews by corporate level personnel

B. Radiation Instruments

- 1. Criteria for instrument selection described
- 2. Types of instruments described
 - Purpose
 - Range
 - Sensitivity
- 3. Instrument use, storage, calibration, testing, and maintenance described

C. Surveys/Monitoring Policies, Methods, Frequency, Procedures

- 1. Area radiation surveys
- 2. Effluent monitoring
- 3. Personnel monitoring (internal/external)
- 4. Airborne monitoring
 - location of air samples
 - types of sampling equipment
 - frequency of sampling
 - analysis method

Decommissioning Plan Evaluation
Licensee: _____
Docket No.: _____

License No.: _____

D. Personnel Protective Clothing, Equipment and Procedures

- 1. Contamination control procedures
- 2. Respiratory protection program adequate
- 3. Anticontamination clothing
- 4. Control of access to restricted areas
- 5. Ventilation/filter systems

E. Radiation Hazards Created by Decommissioning Activity

- 1. Worker/public exposure hazards identified
- 2. Procedures to control hazards described

F. Program Assessment

- 1. Organization, equipment, and procedures adequate to ensure:
 - occupational dose
 - radiation levels in unrestricted areas
 - release of material to unrestricted areas below Part 20 limits
- 2. Effective ALARA program

VIII. Waste Management

- a. Regulatory/applicable disposal site criteria for processing/disposal of wastes met
- b. Projection of radioactive waste generation
 - waste characterized
 - projected volumes
 - radionuclide concentrations
 - waste forms/classifications
 - special/mixed waste forms
 - schedule impact of EPA compliance
- c. Onsite temporary storage
 - quantity of waste
 - expected length of storage
 - location of storage areas
 - radiation levels around storage area
 - means of maintaining security/control
- d. Procedures for unrestricted release of material
 - criteria
 - surveys
 - identification/segregation control

Decommissioning Plan Evaluation
Licensee: _____
Docket No.: _____

License No.: _____

IX. Planned Final Radiation Survey

- a. Plan submitted
- b. Plan includes:
 - 1. proposed method for ensuring all equipment, systems, structures, and site are included in survey (diagrams, plot plans, layout drawings)
 - 2. sufficient data included for meaningful statistical survey
 - 3. description of and data on background radiation
 - 4. type, specification, operating conditions of instruments to be used
 - 5. methods to be used for reviewing, analyzing, and auditing data
- c. Plan demonstrates that reasonable effort made to eliminate residual radioactive contamination
- d. Radiation/contamination levels expected upon facility release for unrestricted use clearly identified and within regulatory limits

X. Funding

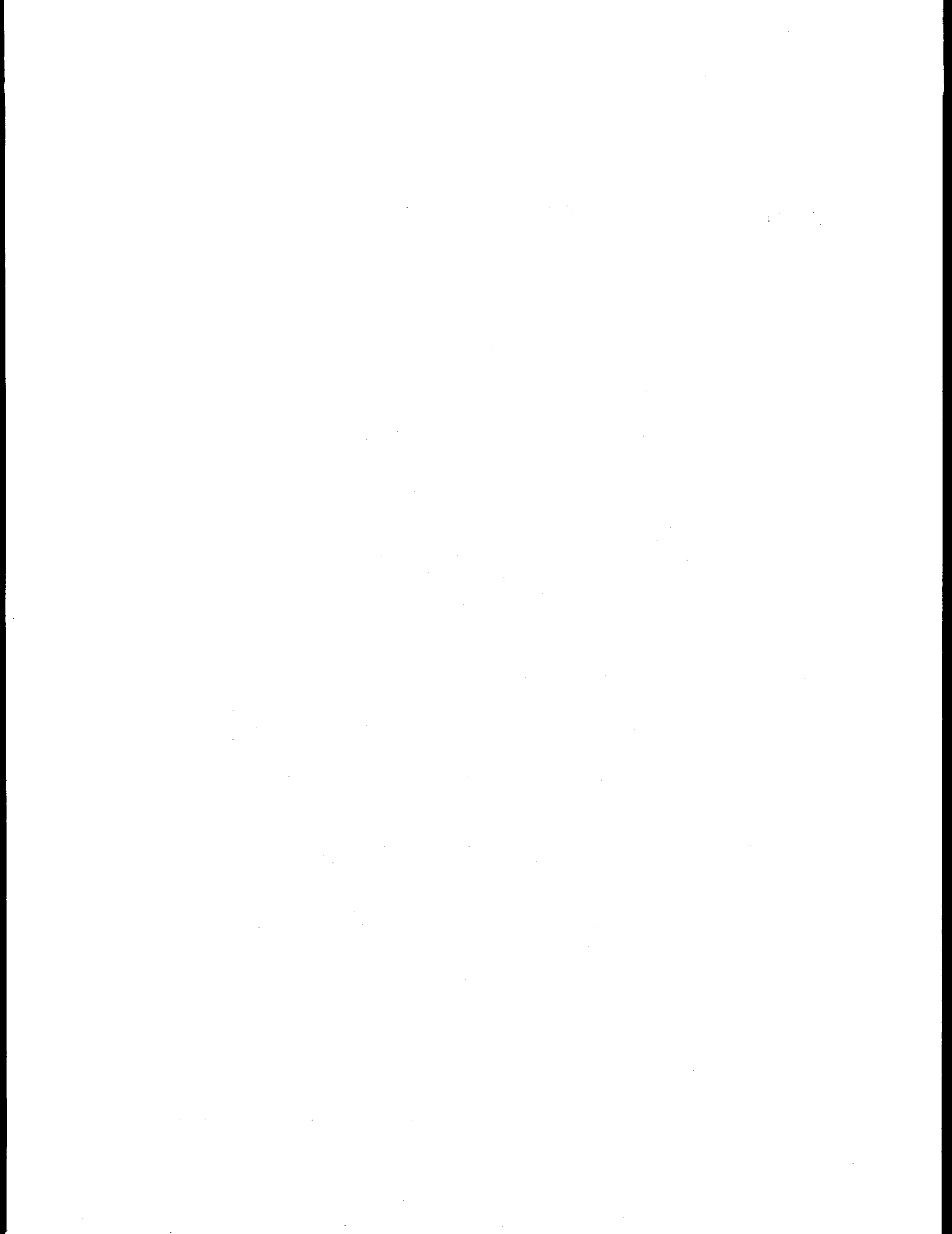
- a. Updated detailed cost estimate submitted
- b. Demonstration that adequate funds set aside
- c. Means of ensuring adequate funds remain available to account for unexpected delays/costs

XI. Physical Security Plan/Material Control/Accounting Plan

- Required
- Submitted

APPENDIX K

NRC Guidance on Meetings





UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555-0001

February 12, 1996

MEMORANDUM TO: Office Directors and Regional Administrators
FROM: James M. Taylor *James L. McIlhenny for*
Executive Director for Operations
SUBJECT: MEETINGS BETWEEN NRC STAFF AND THE PUBLIC

As we fulfill our regulatory responsibilities to protect the health and safety of the public, let us remember that meetings between the NRC and the public are often an important element.

We have recognized the value of such meetings in the past and have held them on a variety of issues, often in response to intense expressions of public interest. Public meetings can enhance the public's confidence in NRC and help clarify concerns before any decisions are made. NRC and the public will benefit more if the need for public meetings is considered early in the process.

The following are indicators that a public meeting may be appropriate:

- ◆ Strong public interest through correspondence or other communications, including the number or nature of comments in response to a notice on a proposed action.
- ◆ Indication of interest by local community groups in current or past NRC actions involving the facility (e.g., letters to the agency; past hearings on a facility; related 2.206 petitions).
- ◆ Congressional, State or local government interest on behalf of their constituents and requests for a meeting or other public outreach efforts.
- ◆ Earlier public interest at other facilities on similar issues involved in making a licensing determination (e.g., license renewal or decommissioning decision).
- ◆ The significance of the safety issues involved (e.g., following a significant plant event).

- Anticipated public interest in and strong public response to a significant NRC activity or decision which is to be announced (major team inspection entrance/exit, restart approval, issuance of an order).

As a reminder, investigative matters are not typically discussed in public meetings. If questions on investigative matters are expected at public meetings, an appropriate response should be discussed with the Office of Investigations or the Office of the Inspector General.

Each Office Director and Regional Administrator should be cognizant of the need for meetings with the public and should inform or make recommendations, as appropriate, to the EDO or Deputy EDOs when significant NRC activities are at the planning stage.

By copy of this memo, I am directing NRR to take the lead (coordinating with ADM) in revising NRC Management Directive 3.5, "Public Attendance at Certain Meetings Involving the NRC Staff," to reflect this guidance. Also all Office Directors and Regional Administrators should review and update guidance documents and procedures (e.g., Inspection Manual, Project Manager Handbook) to identify appropriate points during the conduct of NRC activities when consideration should be given to holding public meetings.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 6, 1995

MEMORANDUM TO: All Employees, NMSS

FROM: John J. Linehan, Director
Program Management, Policy Development
and Analysis Staff, NMSS

SUBJECT: MEETING NOTICES - NRC-549

On February 27, 1995, a NETWORK BULLETIN was issued to all NRC employees reminding them of the importance of submitting information on all meetings involving NRC staff that are open to the public to the centralized Public Meeting System. This Public Meeting System was described in NRC Announcement 115 (10/12/94) and in Management Directive 3.5 (MD 3.5), "Public Attendance at Certain Meetings Involving the NRC Staff." NMSS-specific procedures for preparing and submitting open meeting announcements were provided on November 18, 1994, in a revision of NMSS Policy and Procedures Letter 1-23.

The System was implemented on November 30, 1994, and meetings have been announced on the toll-free electronic bulletin board and telephone recording, and in periodic reports posted in the Public Document Room and Local Public Document Rooms. As more members of the public become aware of this system and rely on it to contain accurate and complete information on all open meetings, it becomes increasingly important that staff comply with the procedures for announcing these meetings. Many NMSS staff members will remember that shortly after the system became effective, Jona Souder, the NRC Meeting Coordinator, presented a briefing for us providing information on the system and answering many questions regarding the types of meetings that are covered by the announcement requirements.

In view of the importance of the system and increasing reliance on it by the public, I ask that you consistently prepare the required announcement information and submit it to the Meeting Coordinator in a timely manner. The submittal can be by E-mail, fax (301-415-5130), or internal mail (M/S T6D8). Your continued cooperation is appreciated.

cc: J. Souder, ADM

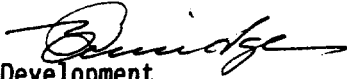


UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 18, 1994

MEMORANDUM TO: All Employees, NMSS

FROM: John J. Linehan, Director 
Program Management, Policy Development
and Analysis Staff, NMSS

SUBJECT: NMSS POLICY AND PROCEDURES LETTER 1-23 - OPEN MEETINGS

Attached is a complete revision of the subject NMSS Policy and Procedures (P&P) Letter. The new letter reflects changes to NRC procedures for reporting meetings with outside parties—such as applicants/licensees—which are open to the public. These changes are a result of NRC Management Directive 3.5 - "Public Attendance at Certain Meetings Involving the NRC Staff", issued on September 26, 1994, and revised on October 13, 1994, by the Office of Administration.

Please read the NMSS P&P Letter and its enclosures carefully. The procedures are effective immediately and will remain in effect until you are notified otherwise. If you have questions, please contact Sally Cornell, PMDA, at 415-8045 or SAC1.

Attachment:
As stated

NMSS POLICY AND PROCEDURES LETTER 1-23 (Complete Revision)
November 1994

PROCEDURES FOR REPORTING NRC STAFF MEETINGS

BACKGROUND:

On September 26, 1994, NRC issued Management Directive (MD) and Handbook 3.5 - "Public Attendance at Certain Meetings Involving the NRC Staff." This MD was later revised (10/13/94) to provide additional information related to meetings involving enforcement matters and settlement conferences. The issuance was followed, on October 12, 1994, by NRC Announcement No. 115. The MD and the Announcement set forth the NRC policy of keeping concerned citizens informed of its actions by opening meetings between the NRC staff and outside persons to attendance by all members of the general public, except where the subject matter to be discussed or the administrative burden imposed by opening the meeting preclude this action. Handbook 3.5 defines the types of meetings that shall be open to the public, as well as those normally closed to the public. It also provides instructions for providing the public with advance notice of open meetings using the new NRC meeting announcement system. It must be noted, however, that the new reporting requirements do not supersede the responsibilities of the NRC staff to notify parties to NRC proceedings about meetings that are open to the public.

The new NRC meeting system will provide the public with information about "open" meetings for a 60-day period through a toll-free telephone recording, a computer bulletin board, and through notices posted in the Public Document Room. The telephone numbers for the toll-free recording and computer bulletin board will be provided to the public in the NRC Weekly Compilation of Press Releases. The Commission will also be informed of all public meetings by the Meeting Announcement Coordinator, in the Office of Administration.

The Meeting Announcement Coordinator will also be responsible for gathering information provided by the NRC staff on meetings which are not open to the public under the definitions in MD 3.5, but which are of interest to the Commission (this is the type of meeting information that we previously provided as part of the Weekly Items of Interest for the Commission).

A copy of NRC MD and Handbook 3.5 is enclosed for reference. NMSS procedures based on the Handbook are shown below.

A "public meeting" is defined as a planned, formal encounter, open to public observation, between one or more NRC staff members and one or more outside persons at a single meeting site for the expressed purpose of discussing substantive issues directly related to NRC's regulatory and safety responsibilities. The policy covers only NRC staff-sponsored and staff-conducted meetings. "Outside persons" are defined as any individual who is not an NRC employee, contractor or consultant; an official representative of another Government agency (except when the agency is subject to NRC regulatory oversight, such as the Department of Energy); an official representative of a foreign government; or an official representative of a State or local government, except when specific NRC licensing or regulatory matters are discussed.

The policy does not apply to the Commission or offices that report directly to the Commission. It also does not apply to meetings with State and local governments (including Agreement States) related to Agreement State or State regulatory activities or to matters other than specific NRC licensing or regulatory actions involving specific licensees.

Meetings between NRC staff and outside persons will be public meetings unless:

- The subject matter to be discussed is classified or otherwise exempted from disclosure by statute; proprietary information; safeguards information; information of a personal nature relating to an individual; information related to a planned, ongoing or completed investigation or law enforcement action; information that is preliminary or unverified; or information that is so general in nature as to have no direct connection to a specific NRC regulatory action.
- The administrative burden associated with public attendance would interfere with NRC staff performing safety and regulatory responsibilities, e.g., the meeting is part of an NRC inspection program.

Handbook 3.5 provides numerous examples of both open and closed meetings for staff reference.

In conformance with the NRC Policy Statement of June 28, 1978 (43 FR 28058) and internal NMSS policy, once the meeting has taken place, a brief summary should be prepared and distributed as directed in the procedures below.

PROCEDURES:

1. When a meeting is being planned between NMSS staff and "outside persons" as defined above (this includes applicants/licensees), the NMSS staff member who will serve as the point of contact for the meeting must review the nature of the meeting and decide, based upon the subject matter involved, whether the meeting will be open to attendance or a greater level of participation by the public. If the meeting is to be "open", the meeting must be reported to the NRC Meeting Announcement Coordinator in the Office of Administration using either the NRC Form 549 or another acceptable notice (such as the information on meetings provided by staff to parties in a proceeding or petitioners for leave to intervene) which will provide the Coordinator with the mandatory information on NRC Form 549. The outside persons with whom NMSS is meeting must also be informed when the meeting is to be open for public observation or participation.

Where public participation in a meeting will be beyond the level of observation, e.g, short remarks, question and answer period, etc., this additional information must be included in the "COMMENTS" block on NRC Form 549, so that it can be included when the meeting is announced to the public. Please note that the large scale "public meetings" NMSS

holds that are associated with specific licensing or decommissioning actions must also be reported to the NRC Meeting Announcement Coordinator, providing the mandatory information from NRC Form 549.

2. "Open" meetings will be announced to the public and Commission at least 10 calendar days in advance. They may be submitted up to 60 calendar days in advance. However, if less than 10 calendar days notice is provided, the NRC Form 549 or other acceptable notice, must be signed and dated by the appropriate NMSS Branch Chief before the information is submitted to the NRC Meeting Announcement Coordinator. This same procedure must be followed when a meeting has been changed or cancelled within the following 10 calendar days.
3. Information on open meetings shall be transmitted at least 10 calendar days in advance of the meeting date to the NRC Meeting Announcement Coordinator by: fax at (301) 415-5130, NRC Mail at Mail Stop TWFN 6D8, or electronically at E-mail address PMNS.
4. With respect to those meetings of NMSS staff with outside parties that would be considered "closed" under the requirements of Handbook 3.5, but which would still be of interest to the Commission--e.g., significant meetings with other Government agencies, etc.--NMSS staff is required to prepare NRC Form 549 for each such meeting, being careful to place an "X" in the block which indicates that the meeting is "non-public". Such meeting notices will be included only in the report that is distributed internally each week to the Commission, SECY, EDO, etc. These meetings will not be placed on the toll-free recording, the computer bulletin board or PDR postings.
5. NMSS staff members must be aware that the reporting of public meetings through the new NRC system does not relieve them of the legal and regulatory responsibilities to notify parties to NRC proceedings about meetings open to public attendance.
6. Once the meeting has taken place, a summary of the meeting (or a trip report including information on the meeting) should be prepared containing factual information relating to the evaluation of the application or pending license case. The report must be completed within 10 working days of the conclusion of the meeting/trip by the NRC contact. It should be placed in the appropriate Docket File(s). Where meetings do not involve the exchange of classified, proprietary, or safeguards information, a copy of the meeting summary/trip report must also be placed in the PDR.
7. In the case of meetings which do involve classified, proprietary or safeguards information, a short, unclassified summary shall be prepared and sent to the Docket File(s) and the PDR.

Enclosure:
NRC Management Directive
and Handbook 3.5

***Public Attendance at Certain
Meetings Involving the
NRC Staff***

***Directive
3.5***

**Volume 3, Part 1 – Publications, Mail, and Information Disclosure
Public Attendance at Certain Meetings Involving the NRC Staff
Directive 3.5**

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U. S. Nuclear Regulatory Commission

Volume: 3 Information Management
Part: 1 Publications, Mail, and Information
Disclosure

ADM

Public Attendance at Certain Meetings Involving the NRC Staff Directive 3.5

Policy (3.5-01)

In furtherance of Commission intent to keep concerned citizens informed of any Commission activity in which they express an interest, meetings between the staff of the U.S. Nuclear Regulatory Commission and outside persons will be open to attendance by all members of the general public in accordance with Part I of Handbook 3.5. This directive does not supersede the responsibilities of the NRC staff to notify parties to NRC proceedings about meetings that are open to public attendance.

Objectives (3.5-02)

- To ensure that members of the public have the opportunity to gain a full understanding of the agency's regulatory process through attendance at and observation of the agency's meetings with applicants, licensees, and others. (021)
- To ensure that applicable meetings are announced in a timely manner and to adequately inform interested members of the public. (022)
- To balance the NRC's desire for openness against the need for the NRC staff to exercise its regulatory and safety responsibilities without undue administrative burden. (023)

Approved: October 13, 1994
(Revised: May 24, 1996)

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**Volume 3, Part 1 - Publications, Mail, and Information Disclosure
Public Attendance at Certain Meetings Involving the NRC Staff
Directive 3.5**

**Organizational Responsibilities and
Delegations of Authority**

(3.5-03)

**The Commission
(031)**

Establishes policy regarding public attendance at meetings conducted by the NRC staff.

**Executive Director for Operations (EDO)
(032)**

Ensures policy is implemented regarding public attendance at meetings conducted by the NRC staff.

**Director, Office of Administration (ADM)
(033)**

Develops and administers a program for the receipt and dissemination of notices of public meetings.

**Office Directors and
Regional Administrators
(034)**

- Implement the policy in this directive for the receipt and dissemination of public meeting notices. (a)
- Inform or make recommendations, as appropriate, to EDO or Deputy EDOs when significant NRC activities are at the planning stage. (b)

**Applicability
(3.5-04)**

- The policy and guidance in this directive and handbook apply to all NRC employees. (041)
- This directive does not apply to the Commission or to offices that report directly to the Commission. (042)
- This directive does not apply to or supersede any existing law, rule, or regulation that addresses public attendance at a specific type of meeting. (043)

**Volume 3, Part 1 - Publications, Mail, and Information Disclosure
Public Attendance at Certain Meetings Involving the NRC Staff
Directive 3.5**

Handbook

(3.5-05)

Handbook 3.5 provides the following types of information. It—

- Defines the types of agency meetings open to the public for observation; (1)
- Describes the means by which the public may learn when agency open meetings are being held; and (2)
- Specifies the procedures by which the staff provides sufficient information to the agency's central meeting announcement coordinator to announce public meetings. (3)

References

(3.5-06)

Code of Federal Regulations—

“Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders,” 10 CFR 2.

“Advisory Committees,” 10 CFR 7.

“Public Records,” 10 CFR 9.

“Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants,” 10 CFR Part 52.

Federal Advisory Committee Act, 5 U.S.C., Appendix I.

The Government in the Sunshine Act, 5 U.S.C. 552b.

NRC Management Directive 8.11, “Review Process for 10 CFR 2.206 Petitions.”

“Staff Meetings Open to the Public; Final Policy Statement” (September 20, 1994; 59 FR 48340).

Approved: October 13, 1994
(Revised: May 24, 1996)

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***Public Attendance at Certain
Meetings Involving the
NRC Staff***

***Handbook
3.5***

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Part I

Definition of a Public Meeting

Public Meeting (A)

The NRC has a longstanding practice of providing the public with the fullest information practicable on its activities and conducting business in an open manner, while balancing the need for the NRC staff to exercise its regulatory and safety responsibilities without undue administrative burden. The NRC staff has held meetings with interested members of the public on a variety of issues, often in response to intense expressions of public interest. Such meetings can enhance the public's confidence in the NRC and help clarify concerns before any decisions are made. Both the NRC and the public will benefit if the need for meetings with the public is considered early in the process. (1)

A public meeting is a planned, formal encounter open to public observation between one or more NRC staff members and one or more outside persons physically present at a single meeting site with the expressed intent of discussing substantive issues that are directly associated with NRC's regulatory and safety responsibilities. This policy applies solely to NRC staff-sponsored and staff-conducted meetings and not to meetings conducted by outside entities that NRC staff members might attend and participate in. (2)

The NRC recognizes that some meetings open under the policy statement may warrant a greater degree of public participation. If participation beyond that of observation is allowed for a particular meeting (e.g., if members of the public will have an opportunity to speak or ask questions), a description of the nature of this participation will be specified when the meeting is announced and at the outset of the meeting by the senior NRC official participating in the meeting. (3)

An outside person is any individual who is not—(4)

- An NRC employee (a)
- Under contract to the NRC (b)

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Public Meeting (A) (continued)

- Acting in an official capacity as a consultant to the NRC (c)
- Acting in an official capacity as a representative of an agency of the executive, legislative, or judicial branch of the U.S. Government (except when the agency is subject to NRC regulatory oversight) (d)
- Acting in an official capacity as a representative of a foreign government (e)
- Acting in an official capacity as a representative of a State or local government (except when specific NRC licensing or regulatory matters are discussed) (f)

The Commission, Commission Offices, and Other Exemptions (B)

The definition of a public meeting in this handbook applies to meetings between the NRC staff and outside persons. It does not apply to the Commission or offices that report directly to the Commission. Similarly, it does not apply to meetings between the NRC staff and representatives of State and local governments. These representatives include those from Agreement States concerned with NRC Agreement State activities or State regulatory actions or other matters of general interest to the State or to the Commission, that is, matters other than specific NRC licensing or regulatory actions involving specific licensees. Also, the definition of a public meeting is not intended to apply to or supersede any existing law, rule, regulation, or policy statement that addresses public attendance at a specific type of meeting. For example, 10 CFR 7 specifically addresses public attendance at advisory committee meetings, and 10 CFR 9, Subpart C, addresses public attendance at Commission meetings. The policy also does not negate existing memoranda of understanding, procedural agreements, or other formal agreements or requirements regarding the accessibility of the public to observe or participate in meetings between NRC and its licensees or any other entities. In addition, the policy does not apply to meetings involving enforcement matters or to settlement conferences. (1)

In general, meetings between the NRC staff and outside persons will be public meetings unless the NRC staff determines that—(2)

- The *subject matter* to be discussed—(a)

The Commission, Commission Offices, and Other Exemptions (B) (continued)

- Is specifically authorized by an Executive order to be kept secret in the interests of national defense or foreign policy (classified information); or is specifically exempted from public disclosure by statute (i)
- Contains trade secrets and commercial or financial information (proprietary information) (ii)
- Contains safeguards information (iii)
- Is of a personal nature where disclosure would constitute a clearly unwarranted invasion of personal privacy (iv)
- Is related to a planned, ongoing, or completed investigation and/or contains information compiled for law enforcement purposes (v)
- Could result in the inappropriate disclosure and dissemination of preliminary, unverified information (vi)
- Is a general information exchange having no direct, substantive connection to a specific NRC regulatory decision or action (vii)
- The administrative burden associated with public attendance at the meeting could result in interfering with the NRC staff's execution of its safety and regulatory responsibilities, such as when the meeting is an integral part of the execution of the NRC inspection program. (b)

It is important to note that whether or not a meeting should be open for public attendance is dependent primarily on the subject matter to be discussed, not on who outside nor who within the NRC staff is participating (e.g., staff level versus senior management). (3)

Also note that meetings between staff and licensees or trade groups to discuss technical issues or licensee performance would normally be open because they may lead to a specific regulatory decision or action. However, should a meeting involving a general information exchange be closed and should discussions during such a meeting approach issues that might lead to a specific regulatory decision or action, the NRC staff may advise the meeting attendees that such matters cannot be discussed in a closed meeting and propose discussing the issues in a future open meeting. (4)

Approved: September 26, 1994

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The Commission, Commission Offices, and Other Exemptions (B) (continued)

The staff shall inform outside persons if a meeting will be a public meeting to allow them to raise concerns regarding confidential information before a meeting, should that be necessary. (5)

This meeting policy is a matter of NRC discretion and may be departed from as NRC convenience and necessity may dictate. Any deviation from this policy must be approved by a branch chief or higher level official. (6)

Examples of Staff Meetings (C)

The following examples of meetings that are typically open or typically closed to public attendance are not intended to be all-inclusive but to establish a thought process that can be used to make decisions on any meeting scenario. Guidance also is provided regarding when the staff should initiate meetings with the public.

Meetings Typically Open to the Public (1)

The following are examples of meetings between the staff and licensees, applicants, industry representatives, intervenors, or petitioners. These meetings are typically open to the public for observation only.

Staff Meetings With Licensees or Applicants Relating to Licensing Issues (a)

A meeting conducted by the NRC technical staff with applicants or licensees as part of its review of a particular domestic license or permit application (including an application for an amendment to a license or permit) will be open to attendance to all parties or petitioners for leave to intervene in the case and, to the extent of available space, to interested members of the public.

Staff Meetings With Parties or Petitioners With Leave To Intervene in a Case (b)

A meeting conducted between the NRC technical staff and other parties or petitioners with leave to intervene in a case regarding the staff's review of the licensing action will be open to applicants or licensees and, to the extent of available space, to interested members of the public.

Examples of Staff Meetings (C) (continued)

Meetings Typically Open to the Public (1) (continued)

Headquarters and Regional Staff Working-Level Meetings With Licensees (c)

Representatives of a utility licensed to operate a nuclear power plant request the opportunity to hold a “working-level” meeting with the NRC headquarters or regional staff to provide the staff with additional technical information related to a proposed license amendment (change to the technical specifications) the staff is reviewing. The discussions that would take place at this meeting could directly affect an NRC regulatory decision or action (granting of the proposed license amendment request); therefore, this meeting should be a public meeting.

Facility Shutdown and Restart Meetings (d)

The NRC staff has issued an order shutting down a nuclear power plant because of potential safety concerns. Representatives of the utility licensed to operate the facility request a meeting with several NRC staff to discuss the actions they have taken to address the staff’s concerns, as well as to discuss possible restart of the facility. The discussions that would take place at this meeting could directly affect an NRC regulatory decision or action (proposed restart of the facility); therefore, this meeting should be a public meeting. In this case, it also may be necessary to obtain alternate meeting space away from the site to support public attendance.

Incident Investigation and Augmented Inspection Team Exit Meetings (e)

In reaction to an event at a nuclear power plant the NRC establishes an incident investigation team (IIT) or an augmented inspection team (AIT) to thoroughly evaluate the situation at the site. Upon completion of the evaluation, an exit meeting is held with the licensee to discuss the team’s findings. The exit meetings for IITs and AITs will normally be open to the public unless the EDO (in the case of an IIT) or the appropriate regional administrator (in the case of an AIT), in consultation with the Director, Office of Public Affairs, decides the criteria contained in this guidance indicate it is appropriate to have a closed meeting. Alternatively, in connection with AIT public meetings or IIT public meetings, the EDO or the regional administrator may decide it is more appropriate to have a separate public meeting and/or press conference in lieu of the public exit meeting with the licensee.

Approved: September 26, 1994

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Examples of Staff Meetings (C) (continued)

Meetings Typically Open to the Public (1) (continued)

Staff Meetings With a Nuclear Steam Supply System Vendor on Confirmatory Research for the Vendor's Application for Design Certification (f)

NRC officials desire to meet with representatives of a nuclear steam supply system (NSSS) vendor and representatives of a foreign government to discuss the specific confirmatory research related to the vendor's application for design certification under 10 CFR 52 that will need to be performed. The confirmatory research will influence the NRC staff's design certification review. Although a meeting with representatives of a foreign government would not need to be a public meeting, a meeting with representatives of the vendor would. Accordingly, this meeting should be a public meeting.

Nuclear Energy Institute (g)

Representatives of the Nuclear Energy Institute (NEI) desire to meet with several NRC staff to discuss the proposed staff position delineated in a draft generic letter. The discussions that would take place at this meeting could directly impact an NRC regulatory decision or action (development and adoption of proposed staff position); therefore, this meeting should be a public meeting.

Meetings Typically Closed to the Public (2)

The following are examples of meetings between the staff and licensees, contractors, or others that, because of the nature of the meeting, are closed to the public.

Inspector Meetings With Licensee Management and Technical Staff (a)

The senior resident inspector and the resident inspector at a nuclear power plant may hold short meetings as needed with the plant manager to discuss activities at the facility. Arranging for public attendance at these types of meetings would place an undue administrative burden (for example, establishing access authorization to the protected area for members of the public) on the licensee and inspectors and would result in substantially interfering with their performing their safety and regulatory responsibilities; therefore, these types of meetings would not need to be public meetings.

Examples of Staff Meetings (C) (continued)

Meetings Typically Closed to the Public (2) (continued)

Inspector Meetings With Licensee Management and Technical Staff (a) (continued)

Similarly, headquarters and regional inspectors evaluating a specific discipline will meet with licensee management and technical staff to discuss current program status and issues. These meetings are considered an integral part of the NRC's inspection effort and thus are not open to the public.

"Drop-In" Meetings or Similar Management Meetings (b)

Senior executives of a utility licensed to operate a nuclear power plant request the opportunity to conduct a "drop-in" visit or similar management meeting with the Executive Director for Operations, with other senior managers at agency headquarters, or with senior managers of the regional office in which their facility is located. These visits or meetings typically consist of a general exchange of information not directly related to any regulatory action or decision; therefore, such meetings would not typically need to be public meetings.

Budget Meetings With Office of Management and Budget Officials (c)

Officials from the Office of Management and Budget (OMB) desire to meet with NRC officials to discuss the NRC's proposed budget for the next fiscal year. The OMB officials are acting in their official capacities as representatives of the executive branch and are not considered "outside persons" in the definition of a public meeting; therefore, this meeting would not be a public meeting.

Staff Meetings With a Vendor for a NSSS About a Schedule for Application Submissions (d)

Several NRC staff desire to meet with an NSSS vendor at the vendor's office to discuss the vendor's application for design certification under 10 CFR 52. The NRC staff desires to discuss the timeframe and schedule for submission of certain portions of the application, as well as the impact that the vendor's not meeting these deadlines would have on the NRC staff's review of the application. The NRC staff does not desire to discuss any technical or safety issues associated with the application. These discussions are not an information exchange related to any substantive

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Public Attendance at Certain Meetings Involving the NRC Staff
Handbook 3.5 Part I**

Examples of Staff Meetings (C) (continued)

Meetings Typically Closed to the Public (2) (continued)

Staff Meetings With a Vendor for a NSSS About a Schedule for Application Submissions (d) (continued)

issues associated with NRC's regulatory and safety responsibilities; therefore, this meeting would not be a public meeting.

Staff Meetings With NRC Contractors (e)

NRC officials desire to meet with representatives of an organization under contract to NRC to do confirmatory research related to an advanced light-water reactor design certification application. The organization (since it is under contract to NRC) is not an outside person; therefore, this meeting would not need to be a public meeting.

Staff Meeting With an Allegor of Wrongdoing (f)

Several NRC officials desire to meet and interview a member of the public or an employee of an organization licensed by NRC to possess certain types of radioactive materials regarding the individual's allegations of wrongdoing by the organization. The discussions are related to potential or ongoing investigatory activities; therefore, this meeting would not need to be a public meeting.

Inspection Exit Meetings (g)

Upon conclusion of an inspection, NRC inspectors meet and discuss with the licensee of a nuclear power plant the preliminary results of their inspection activities (an exit meeting). Since the inspectors' findings are preliminary in that they are subject to NRC management review, open meetings could result in the inappropriate disclosure of preliminary, unverified information. Therefore, routine inspection exit meetings are generally not open to public attendance. Attendance at the exit meeting by representatives of Agreement States or adjacent States, for example, would be governed by the policy agreed to by a specific State and the NRC concerning attendance by such representatives.*

*In certain significant cases of high public interest, the regional administrator or the office director, in consultation with the Director, Office of Public Affairs, may decide it is appropriate to allow public attendance or have a separate public meeting to discuss the results of the inspection or review.

Examples of Staff Meetings (C) (continued)

Meetings Typically Closed to the Public (2) (continued)

Fitness-for-Duty Meetings (h)

NRC officials desire to meet with representatives of a utility licensed to operate a nuclear power plant to discuss preliminary information regarding the fitness for duty of a specific licensed reactor operator. The meeting would not need to be a public meeting because public discussion of the licensed individual could be an invasion of personal privacy.

Staff Review Visits to Licensee Corporate and Plant Facilities (i)

A reviewer from the Office of Nuclear Reactor Regulation (NRR) is going to the utility corporate office to examine design calculations before writing the safety evaluation report. As a followup, the reviewer goes to the site the following week to review the in-plant design implementation. The timing of the exit interview is fluid based on licensee activities and/or sufficient development by NRC of any NRC findings.* Opening the meeting would thus constitute an undue administrative burden.

Project Manager and Regional Staff Meeting With the Licensee Following System Modification Problems (j)

A licensee performed a modification on its unit's rod control system. The modification was not reviewed and not required to be reviewed by the NRC staff. During postmodification testing, some problems are encountered. The NRC inspection staff learns of problems with both the hardware and the test procedure and discusses the concerns with NRC management. The NRR project manager and regional management decide that they need to meet with licensee management to discuss NRC's concerns regarding problems with the modification and testing. This meeting need not be open to the public because the NRC concerns are based on preliminary, unverified information.

Regional Management Meeting With the Licensee Regarding Preliminary Calculations (k)

During a design-basis reconstitution effort, a licensee determines through preliminary calculations that in the past its service water

*In certain significant cases of high public interest, the regional administrator or the office director, in consultation with the Director, Office of Public Affairs, may decide it is appropriate to allow public attendance or have a separate public meeting to discuss the results of the inspection or review.

Examples of Staff Meetings (C) (continued)

Meetings Typically Closed to the Public (2) (continued)

Regional Management Meeting With the Licensee Regarding Preliminary Calculations (k) (continued)

system (ultimate heat sink) may not have been able to provide design basis flow to all heat loads under accident conditions. The licensee informs the NRC verbally of the potential past problem. Current test results demonstrate that the system is operable. The computer modelling required to determine if the system had, in the past, been inoperable is complex and will take 1 month to complete. Regional management and technical experts meet with the licensee to get a better understanding of the problem, its consequences, and the ongoing evaluation. This meeting is not open to the public because it could result in the release of preliminary, unverified information.

NRC Management Visit to a Licensee Facility (l)

An NRC manager may visit a facility on short notice or without any notice for purposes other than meeting with licensee officials. These purposes may include but are not limited to monitoring and assessing the performance of NRC subordinates, touring the facility, or independently assessing licensee performance. During such a trip, the manager may visit licensee officials and may discuss substantive regulatory issues with them. Opening such a meeting to the public would constitute an undue administrative burden and could impede the efficient execution of the NRC's safety and regulatory responsibilities.

Meetings Between NRC Staff and the Public (3)

Each office director and regional administrator should be cognizant of the fact that under appropriate circumstances, meetings with the public should be initiated. Recommendations regarding meetings with the public should be made, as appropriate, to the EDO or Deputy EDO when significant NRC activities are at the planning stage. (a)

The following are circumstances under which meetings with the public should be initiated: (b)

Strong Public Interest (i)

Through correspondence or other means of communications, including the number or nature of comments in response to a notice on

Examples of Staff Meetings (C) (continued)

Meetings Between NRC Staff and the Public (3) (continued)

Strong Public Interest (i) (continued)

a proposed action, members of the public have expressed significant interest in a particular action under NRC staff review.

Local Community Groups (ii)

Local community groups have expressed interest in current or past NRC actions involving a facility, for example, letters to the agency, past hearings on a facility, or related 10 CFR 2.206 petitions. (Guidance related to conduct of informal public hearings regarding a 2.206 petition currently under NRC staff review can be found in Handbook 8.11, Part II.)

Government Official Interest (iii)

Members of Congress or State or local government officials have expressed interest on behalf of their constituents and have requested a meeting or other public outreach effort.

Previous Public Interest (iv)

Earlier public interest was expressed at the subject facility or at other facilities on similar issues involved in making a licensing determination, such as license renewal or a decommissioning decision.

Safety Significance (v)

Significant public interest may be anticipated for issues involving safety, such as following a significant plant event.

Anticipated Interest in Significant NRC Activity (vi)

The NRC expects a significant NRC activity or pending decision, such as the entrance or exit interview of a major team inspection, approval to the restart of a facility, or issuance of an order, to generate public interest and a strong public response.

Part II

Announcing Meetings Open to the Public

Formal Notice of Public Meetings (A)

Meetings open to the public should normally be announced to the public and to the Commission at least 10 calendar days in advance of the date of the meeting and may be announced up to 60 calendar days before the meeting. Outside persons with whom the staff is meeting should be informed when a meeting is to be open for public observation or participation. (1)

Meetings will be announced to the public through the Weekly Compilation of Press Releases, on a toll-free telephone recording and computer bulletin board, and through notices posted in the Public Document Room. (2)

The Commission will be informed of all public meetings by the meeting announcement coordinator, Office of Administration (ADM), Division of Freedom of Information and Publications Services (DFIPS), following receipt of meeting notices from agency offices in accordance with Sections (B)(1) and (2) of this part. (3)

Procedures for Noticing Public Meetings (B)

To notice a public meeting, provide the information specified in NRC Form 549, "Public Meeting Announcement Data Input" (Exhibit 1), to the meeting announcement coordinator, ADM, DFIPS, at least 10 calendar days in advance of the meeting by facsimile (301) 415-5130 or mail (Mail Stop T-6 D8) in accordance with guidelines specified on NRC Form 549. The staff may also submit meeting announcements to the meeting announcement coordinator by E-mail at the following address: PMNS. (1)

Procedures for Noticing Public Meetings (B) (continued)

When a party in a proceeding or a petitioner for leave to intervene requests information about forthcoming meetings conducted by the NRC staff, reasonable effort is made by the NRC staff to inform the party or petitioner of these meetings. When this notice is given to parties in a proceeding, the staff may submit a copy of that notice to the meeting announcement coordinator if it contains the mandatory information requested in NRC Form 549. (2)

Upon receipt of NRC Form 549, or other acceptable notice, the meeting announcement coordinator will enter the pertinent information into the computerized public notice file database and disseminate the notices as follows: (3)

- A weekly report of all meetings, by date and in time-of-day order, contained in the file as of 10:00 a.m. on Friday of each week by agency mail to the following organizations: (a)
 - The Commission (i)
 - Office of the Secretary (ii)
 - The Executive Director for Operations (iii)
 - Program office directors, regional administrators, and other office directors at their request (iv)
 - Director, Office of Public Affairs (v)
 - Public Document Room for posting (vi)
 - Chairmen of the Advisory Committees on Nuclear Waste and Reactor Safeguards (vii)
- A daily report by facsimile will be sent to the same recipients only when a meeting has been newly scheduled, cancelled, or changed within the following 10 calendar days. (b)

The meeting announcement coordinator will update information for the toll-free telephone recording on a daily basis. (4)

Meetings scheduled with less than a 10-calendar-day public notice must be approved in writing by the appropriate branch chief before the notice is submitted to the meeting announcement coordinator. (5)

Volume 3, Part 1 - Publications, Mail, and Information Disclosure
 Public Attendance at Certain Meetings Involving the NRC Staff
 Handbook 3.5 Exhibits

Exhibit 1
 NRC Form 549, "Public Meeting Announcement
 Data Input"

NRC FORM 549 8-88 NRCMD 3.5		U. S. NUCLEAR REGULATORY COMMISSION		MEETING NOTICE NUMBER (FOIAL FOR BRANCH WILL COMPLETE)	
PUBLIC MEETING ANNOUNCEMENT DATA INPUT				NEW	
(Fields with shaded headings are mandatory)				REVISED	
FACSIMILE TELEPHONE (Include Area Code)					
FROM	TO	BEGINNING	ENDING (if known)		
			a.m.	a.m.	
			p.m.	p.m.	
			a.m.	a.m.	
			p.m.	p.m.	
			a.m.	a.m.	
			p.m.	p.m.	
BUILDING	STREET ADDRESS				
ROOM NUMBER	CITY AND STATE				
PURPOSE OF MEETING (REQUIRED)					
COMMENTS (25 characters available)					
					PUBLIC
					NON-PUBLIC
DOCKET OR PROJECT NUMBER	FACILITY NAME				
SIGNATURE - BRANCH CHIEF					
					DATE
RETURN THIS FORM TO: MEETING NOTICE COORDINATOR, MAIL STOP T-8 08 FACSIMILE (301) 415-6130, TELEPHONE (301) 415-7082, E-MAIL: PMNS					
NRC FORM 549 (8-88) PRINTED ON RECYCLED PAPER					

APPENDIX L

Outline for an Environmental Assessment

[The page contains extremely faint and illegible text, likely bleed-through from the reverse side of the document. No specific content can be transcribed.]

OUTLINE FOR AN ENVIRONMENTAL ASSESSMENT

Forword

Summary and Conclusions

1. Introduction

- 1.1 Background
- 1.2 Purpose and Need for Proposed Action
- 1.3 Description of Proposed Action

2. Facility Description/Operating History

- 2.1 Site locale and physical description
- 2.2 Descriptions facility operations and radioactive material management practices

3. Radiological Status of the Facility

- 3.1 Radiological status of structures and equipment
- 3.2 Radiological status of surface and subsurface soils
- 3.3 Radiological status of ground and surface water

4. Decommissioning Alternatives

- 4.1 No action
- 4.2 Proposed action
- 4.3 Alternatives considered and decision rationale

5. Radiation protection program

- 6.1 Radioactive waste management program
- 6.2 Technical and environmental specifications
- 6.3 Radiological accident analysis

6. Environmental Impacts

- 13.1 Radiological Impacts to the Public and Workers
- 13.2 Non-radiological Impacts

7. Environmental Justice (if required)

8. Agencies and Individuals Consulted, and Sources Used

9. References

NUCLEAR REGULATORY COMMISSION

[Docket No: 70-0925]

ENVIRONMENTAL ASSESSMENT, FINDING OF NO SIGNIFICANT IMPACT, AND NOTICE OF OPPORTUNITY FOR A HEARING

AGENCY: Nuclear Regulatory Commission

ACTION: Environmental Assessment, Finding of No Significant Impact, and Notice of Opportunity for a Hearing for Release of parts of the Cimarron Site for Unrestricted Use

The U.S. Nuclear Regulatory Commission is considering the release for unrestricted use of approximately 695 acres of the 840 acre Cimarron site currently under NRC License SNM-928. There is no history of licensed activities within this 695 acre area. The licensee has performed systematic measurements in the area to confirm that the concentration of licensed material in the soil is below NRC's guidelines for unrestricted use.

Introduction

The Cimarron Corporation, a subsidiary of Kerr-McGee Corporation, operated two plants, near Crescent, Oklahoma, for the manufacture of enriched uranium and mixed oxide reactor fuels. Fuel manufacturing operations ceased in 1975, at which time decommissioning activities were initiated. The ultimate goal of the decommissioning effort is to release the entire 840 acre site for unrestricted use. To facilitate remediating and releasing the site, the licensee has divided the 840 acre Cimarron site into three areas, designated as Phase I, Phase II, and Phase III areas.

After any necessary remediation is complete in each of these 3 areas, the licensee will perform final status surveys in the area. Assuming that the surveys demonstrate that any residual contamination meets NRC guidelines, the licensee intends to request NRC to release the area for unrestricted use, and remove the area from the license. The release of the 695 acre Phase I area for unrestricted use is the proposed licensing action addressed in this environmental assessment.

Proposed Action

The proposed action is the release for unrestricted use, and the removal from License SNM-928, of approximately 695 acres of land. This area has been designated by the license as the "Phase I" area. The boundaries of the Phase 1 area are defined in Drawing No. 95MOST_RF3 in the licensee's November 13, 1995, letter to NRC.

The Need for Proposed Action

The licensee seeks to release property that is currently under license for unrestricted use. This action is requested in order to remove the current limitations on the future use of the property.

Alternatives to Proposed Action

The only alternative to the proposed action is to not release the Phase I area for unrestricted use and keep the area under license. Maintaining an NRC license for the Phase 1 area would provide negligible, if any, environmental benefit, but would significantly reduce options for future use of the property.

Environmental Impacts of Proposed Action

Based upon a review of the Cimarron site history, the licensee concluded that the Phase I area was not used for licensed activities. To support the historical site assessment conclusions, the licensee references the results of its 1979 scoping survey of the Cimarron site. This scoping survey included exposure rate measurements systematically made over the site. The exposure rates measured within the Phase I area were within the range of natural background. In addition, in 1990, the licensee conducted a soil sampling program in the areas surrounding the uranium building to further define the extent of contamination on the site. No areas identified as contaminated during the 1990 survey are included in the Phase I area. The results of both the 1979 and 1990 characterization surveys are included in the licensee's "Radiological Characterization Report for Cimarron Corporation's Former Nuclear Fuel Fabrication Facility, Crescent, Oklahoma," October 1994 (Cimarron Characterization Report).

Based on the historical site assessment and characterization results, the licensee classified the Phase 1 Area as unaffected. An unaffected area, as defined in NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination," is an area not expected to contain residual radioactivity from licensed operations. The licensee submitted the "Final Survey Plan for Unaffected Areas," in October 1994 (Final Survey Plan). Following the guidance in NUREG/CR-5849, the Final Survey Plan provided the methods to be used to conduct the final survey and provide documentation that the Phase I area meets NRC unrestricted use criteria. After the licensee responded satisfactorily to NRC comments on the Final Survey Plan, the plan was approved on May 1, 1995.

The licensee completed the final survey of the Phase 1 area, in accordance with the approved plan, and submitted the results to NRC in the "Final Status Survey Report, Phase I Areas at the Cimarron Facility," July 1995 (Final Survey Report). After the licensee acceptably responded to NRC's September 5, 1995, comments, the Final Survey Report was deemed acceptable by NRC to demonstrate that the Phase I areas meet NRC's guidelines for unrestricted use. A confirmatory survey was performed by an NRC contractor, the Oak Ridge Institute for Science and Education (ORISE), during the period October 17 through 19, 1995. ORISE conducted independent, random, measurements in the Phase I area. The ORISE results were consistent with the licensee's results and support the conclusion that the Phase I area meets NRC guidelines.

The unrestricted use guidelines for enriched uranium and thorium for the Cimarron Phase I area were the Option 1 guidelines in the 1981 Branch Technical Position on "Disposal or Onsite Storage of Thorium or Uranium Wastes From Past Operations" (46 *FR* 52061) (1981 BTP). The Option 1 guidelines are 30 pCi/g for enriched uranium and 10 pCi/g for thorium. In the April 1992 "SDMP Action Plan" (57 *FR* 13389), the Commission instructed the staff to use the 1981 BTP guidelines, and ALARA, as the unrestricted release criteria for decommissioning pending the final rule on radiological criteria for decommissioning. Although thorium was never processed at the Cimarron site, thorium concentrations in soil were also evaluated during final the final survey.

The average enriched uranium activity measured in soil samples collected during the final survey of the Cimarron Phase 1 area, as reported in the Final Survey Report, was 4.9 pCi/g. After subtracting the Cimarron enriched uranium background value of 4.0 pCi/g, the net average total uranium activity measured was 0.9 pCi/g. Note that the 4.0 pCi/g background value includes a correction factor to estimate total uranium assuming 2.7% enrichment, by weight, of U-235. The licensee uses the corrected background since all of the sample results also contain the correction factor. The licensee estimates that the natural uranium background at the Cimarron site, not including the correction factor, is 1.8 pCi/g. Less than 1.3% of the individual sample results were statistically greater than background. The maximum individual net concentration of enriched uranium identified in the final survey samples was 8.4 pCi/g. The area containing this sample was separated from the Phase I Area and will be further evaluated during the Phase II final status survey. Using the 1981 BTP pathway analysis/dose assessment, conservatively assuming that the 0.9 pCi/g net concentration represents a statistically significant concentration above background, the dose to a member of the public would be approximately 0.2 mrem per year. All of the individual thorium soil sample results were within the range of natural background.

Conclusions

The environmental impacts from the proposed action are insignificant.

Finding of No Significant Impact

The Commission has prepared an EA related to the proposed unrestricted release, and removal from license SNM-928, of 695 acres of property on the Cimarron site in Crescent, Oklahoma. On the basis of the EA, the Commission has concluded that this licensing action would not significantly affect the environment and does not warrant the preparation of an environmental impact statement. Accordingly, it has been determined that a Finding of No Significant Impact is appropriate.

The above documents related to this proposed action are available for public inspection and copying at the Commission's Public Document Room at the Gelman Building, 2120 L Street NW., Washington, DC.

OPPORTUNITY FOR A HEARING

The NRC hereby provides notice that this is a proceeding on an application for a license amendment falling within the scope of Subpart L, Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings, of NRC's rules and practice for domestic licensing proceedings in 10 CFR Part 2. Pursuant to §2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing in accordance with §2.1205(c). A request for a hearing must be filed within thirty (30) days of the date of publication of this *Federal Register* notice.

The request for a hearing must be filed with the Office of the Secretary either:

1. By delivery to the Docketing and Service Branch of the Office of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738; or
2. By mail or telegram addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Attention: Docketing and Service Branch.

In addition to meeting other applicable requirements of 10 CFR Part 2 of the NRC's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

1. The interest of the requestor in the proceeding;
2. How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in §2.1205(g);
3. The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and
4. The circumstances establishing that the request for a hearing is timely in accordance with §2.1205(c).

In accordance with 10 CFR §2.1205(e), each request for a hearing must also be served, by delivering it personally or by mail, to:

1. The applicant, Cimarron Corporation, 123 Robert S. Kerr, MT-2006, Oklahoma City, OK, 73102, Attention: Mr. Jess Larsen, and
2. The NRC staff, by delivery to the Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or by mail, addressed to the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

For further details with respect to this action, the application for amendment request is available for inspection at the Commission's Public Document Room, 2120 L Street NW., Washington, DC 20555.

Dated at Rockville, Maryland, this day of March, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Michael F. Weber, Chief
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making and strategic planning.

3. The third part of the document focuses on the role of technology in enhancing data management and analysis. It discusses the benefits of using advanced software and systems to streamline data collection, storage, and reporting processes.

4. The fourth part of the document addresses the challenges and risks associated with data management. It identifies common issues such as data quality, security, and privacy, and provides strategies to mitigate these risks and ensure the integrity of the organization's data.

5. The fifth part of the document discusses the importance of data governance and the role of leadership in establishing a strong data management framework. It emphasizes the need for clear policies, procedures, and roles to ensure effective data management across the organization.

6. The sixth part of the document provides a summary of the key findings and recommendations. It reiterates the importance of data management and provides actionable steps for improving the organization's data management practices.

7. The seventh part of the document includes a list of references and sources used in the research. It provides a comprehensive list of relevant literature and resources for further study and information.

8. The eighth part of the document contains a list of appendices and supplementary materials. These materials provide additional details and data to support the findings and conclusions of the document.

9. The ninth part of the document includes a list of figures and tables. These visual aids help to present complex data in a clear and concise manner, making it easier to understand and interpret.

10. The tenth part of the document contains a list of footnotes and endnotes. These notes provide additional information and references related to the content of the document.

APPENDIX M

**Outline for a Broad Safety Evaluation Report
to Support a Licensing Action Authorizing Decommissioning**

CHAPTER I. OF THE DEATH OF KING CHARLES THE FIRST.

IN THE YEAR 1649, ON THE TWENTY-NINTH OF JANUARY, KING CHARLES THE FIRST WAS BEHEADED AT WHITE CHURCH.

THE EXECUTION WAS PERFORMED BY SEVEN BEHEADERS, WHOSE NAMES WERE JOHN BRIDGES, JOHN COOPER, JOHN HAYWARD, JOHN LITTLE, JOHN MORTIMER, JOHN PIERCE, AND JOHN WOOD.

THE KING WAS BOUND TO A WHEEL, AND HIS HEAD WAS CUT OFF BY THE FIRST BLOW.

THE SECOND BLOW WAS GIVEN TO HIS NECK, AND THE THIRD TO HIS SHOULDERS.

THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE FOURTH BLOW.

THE FIFTH BLOW WAS GIVEN TO HIS NECK, AND THE SIXTH TO HIS SHOULDERS.

THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE SEVENTH BLOW.

THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE SEVENTH BLOW.

THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE SEVENTH BLOW.

THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE SEVENTH BLOW.

THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE SEVENTH BLOW.

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THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE SEVENTH BLOW.

THE KING WAS THEN LAYING ON HIS FACE, AND HIS HEAD WAS CUT OFF BY THE SEVENTH BLOW.

OUTLINE FOR A SAFETY EVALUATION REPORT

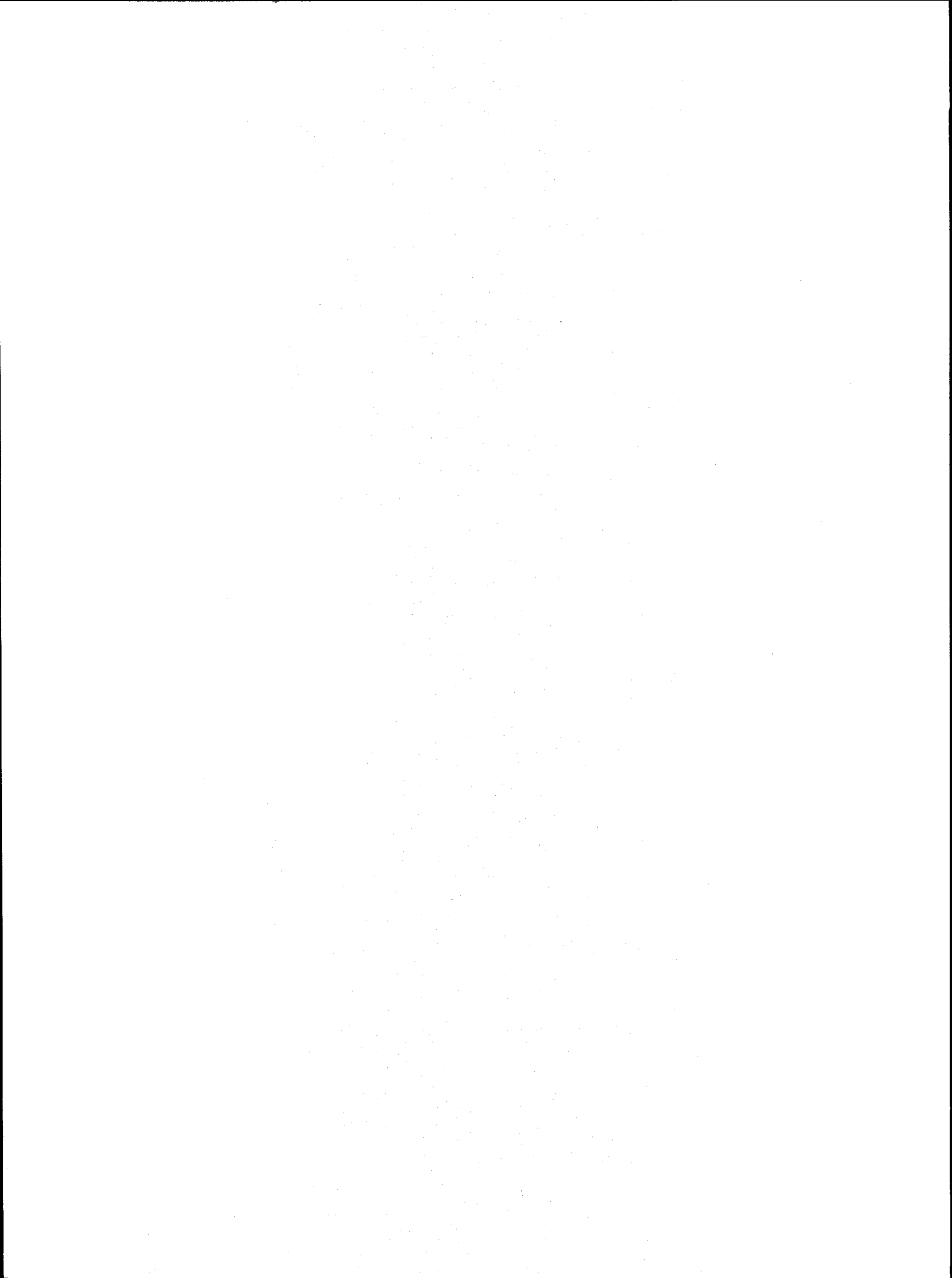
1. Introduction
 - 1.1 Background
 - 1.2 Purpose and Need for Proposed Action
 - 1.3 Description of Proposed Action
2. Facility Description/Operating History
 - 2.1 Site locale and physical description
 - 2.2 Description of facilities
 - 2.3 Chronological description of facility development and operations
 - 2.4 Descriptions of radioactive material management activities and practices
3. Radiological Status of the Facility
 - 3.1 Radiological status of all structures and systems
 - 3.2 Radiological status of surface and subsurface soils
 - 3.3 Radiological status of ground and surface water
4. Evaluations
 - 4.1 Decommissioning Task Management Program
 - 4.2 Occupational Safety and Industrial Hygiene Programs
 - 4.3 Radiation Protection Programs
 - 4.4 Radiological Accident Analysis
 - 4.5 Radioactive Waste Management Program
 - 4.6 Technical and Environmental Specifications
 - 4.7 Quality Assurance/Quality Control Program
 - 4.8 Public and Worker Doses from Decommissioning
 - 4.9 Emergency Planning
 - 4.10 Release Criteria
 - 4.11 Physical Security
5. Conclusion
6. References

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APPENDIX N

**Procedures for the Development of an
Environmental Impact Statement**



PROCEDURES FOR THE DEVELOPMENT OF AN ENVIRONMENTAL IMPACT STATEMENT

Statutory and regulatory requirements for the preparation of an Environmental Impact Statement are described in National Environmental Policy Act of 1969 (NEPA) and NRC's implementing regulations in 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions."

The development of an EIS typically begins with the determination, in the Environmental Assessment (EA), that the proposed action is a major Federal action that could have environmental impact. However, in certain circumstances it is not necessary to develop an EA prior to initiating the development of an EIS. Licensing actions requiring the development of an EIS are identified in 10 CFR 51.20(b)(1-14). In addition, if the decommissioning alternative chosen by the licensee will result in large volumes of residual radioactive material in excess of NRC limits being stabilized at the site after completion of remediation an EIS will be required. Examples of the type of decommissioning alternatives that would require the development of an EIS would be one that involve the on-site treatment and disposal of radioactive waste from operations or decommissioning or the long-term storage of large volumes of contaminated material.

The next steps in the EIS development process are described in 10 CFR 51.26 - 51.29. They are the publication of a Notice of Intent (NOI) to prepare an environmental impact statement (EIS) for the proposed decommissioning alternative and to conducting scoping for the EIS. The NOI summarizes the NRC's plans to prepare the EIS, gives background information on the facility, describes the need for the proposed action, invites written comments on the proposed action, announces the public scoping meeting, offers a proposed outline for the EIS, and discusses the alternatives considered. The scoping process, conducted in accordance with 10 CFR 51.28 and 51.29, is an opportunity for public participation in identifying the concerns and issues that should be included in the EIS. The NOI identifies several objectives for the scoping process, including: (1) defining the scope of the proposed action and alternatives to be included in the EIS; (2) determining the scope of the EIS and the significant issues to be analyzed in depth; and (3) identifying and eliminating from detailed study issues which: are not significant, are peripheral, or have been covered by prior environmental review. A summary of the scoping process is prepared by the NRC.

The next step is to obtain relevant information about the decommissioning and to prepare the written EIS. The EIS is based on information that is prepared by the licensee, or responsible party, and submitted to the NRC in the Environmental Report (ER). NRC's general requirements for ERs are contained in 10 CFR 51.45. The ER contains a description of the proposed action, a statement of its purposes, a description of the environment affected, and includes the following:

- The impact of the proposed action on the environment.

- Any adverse environmental effects which cannot be avoided should the proposal be implemented.
- Alternatives to the proposed action.
- The relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity.
- Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented
- An analysis which considers and balances the environmental effects of the proposed action and the alternatives available for reducing or avoiding adverse environmental effects, as well as environmental, economic, technical, and other benefits of the proposed action.
- A list of all Federal permits, licenses, approvals, and other entitlements which must be obtained in connection with the proposed action and a description of the status of compliance with these requirements.

In some cases the information needed by NRC staff to prepare the EIS is not included in the ER. As a result, additional information may need to be developed independently or obtained through a series of interrogatories commonly referred to as requests for additional information (RAI).

The EIS is prepared in two versions, a draft and a final, with an intervening public comment period. The EIS is normally the result of the staff's review of the ER and the Remediation plan submitted by the licensee. The staff independently evaluates and is responsible for the reliability of all information in the EIS.

NRC's general requirements for the draft EIS (DEIS) are contained in 10 CFR 51.70. The format of the DEIS is outlined at section 1(a) of Appendix A of 10 CFR Part 51, Subpart A. An example outline for an EIS is included herein as Attachment A.

The DEIS is prepared in accordance with the scope decided upon in the scoping process and addresses the following topics:

- Consideration of major points of view concerning the environmental impacts of the proposed action and the alternatives and includes an analysis of significant problems and objections raised by interested and affected groups/individuals.
- A list of all Federal permits, licenses, approvals, and other entitlements which must be obtained in connection with the proposed action and a description of the status of compliance with these requirements.

- An analysis which considers and balances the environmental effects of the proposed action and the alternatives available for reducing or avoiding adverse environmental effects, as well as environmental, economic, technical, and other benefits of the proposed action.
- A preliminary recommendation concerning the proposed action. In lieu of a recommendation, the staff may indicate that two or more alternatives remain under consideration.

The DEIS is distributed in accordance with §51.74 and a notice of availability is published in the Federal Register. A minimum public comment period of 45 days follows.

After receipt and consideration of comments, the staff prepares a final EIS (FEIS) in the same format as the DEIS. NRC's general requirements for the FEIS are contained in 10 CFR 51.90 and 51.91. The FEIS includes:

- All substantive comments received on the DEIS.
- Responses to any comments received on the DEIS. Responses may include modification of alternatives, development and evaluation of additional alternatives, revised analyses, factual corrections, and explanation of why comments do not warrant further response.
- A discussion of any relevant opposing view not adequately discussed in the DEIS.
- A statement of how the alternatives considered in it and the decisions based on it will or will not achieve NEPA requirements.
- A final recommendation on the action to be taken.

The FEIS is distributed in accordance with §51.93 and a notice of availability is published in the *Federal Register*.

NRC's regulations (10 CFR 51.102) require that any action for which an FEIS has been prepared shall be accompanied by or include a public record of decision (ROD). NRC's general requirements for the ROD are located in 10 CFR 51.103. The ROD shall:

- State the decision
- Identify the alternatives considered by the Commission in reaching the decision, state that these alternatives were included in the range of alternatives discussed in the EIS and specify the alternative or alternatives which were considered to be environmentally preferable
- Discuss preferences among alternatives based on relevant factors

- State whether the Commission has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not to explain why those measures were not adopted.
- Summarize any license conditions and monitoring programs adopted in connection with mitigation measures.

Although costs and schedules vary according to the complexity of the decommissioning alternative selected, generally the development of an EIS requires about 2 years, as outlined below, and costs approximately \$1 million. Typical timeframes for development of an EIS are:

- NOI to the completion of the scoping process - 6 months
- Development of the draft EIS - 9 months
- Development of the final EIS - 9 months

ATTACHMENT A

EXAMPLE OUTLINE FOR AN ENVIRONMENTAL IMPACT STATEMENT³

Abstract

Executive Summary

Fact Sheet

Table of Contents

1. Introduction
 - 1.1 Background
 - 1.2 Purpose and Need for Proposed Action
 - 1.3 Description of Proposed Action
 - 1.4 Approach in Preparation of the Draft EIS
 - 1.5 Structure of the Draft EIS
2. Alternatives Including the Proposed Action
 - 2.1 Factors Considered in Evaluating Alternatives
 - 2.2 Alternatives
 - 2.3 Regulatory Compliance
3. Affected Environment
 - 3.1 Introduction
 - 3.2 Facility Description
 - 3.3 Land Use
 - 3.4 Geology/Seismicity
 - 3.5 Meteorology and Hydrology
 - 3.6 Ecology
 - 3.7 Radiological Characteristics
 - 3.8 Chemical Characteristics
 - 3.9 Socioeconomic Characteristics
 - 3.10 Cultural Resources
 - 3.11 Other Environmental Features
4. Decommissioning Alternatives Analyzed and Method of Approach for the Analysis
 - 4.1 General Information on Approach and Method of Analysis
 - 4.2 Alternatives Considered
 - (a) Alternative 1 (additional Alternatives as appropriate, including "no action" alternative)

³10 CFR Part 51, Subpart A, Appendix A, also provides guidance on the format and content of an EIS.

- 4.3 Method of Analysis of Alternatives
 - (a) define range of alternative decommissioning approaches
 - (b) evaluate alternative approaches
 - projected incremental impact to workers, the public and the environment
 - cost associated with each alternative
 - (c) comparative evaluation of the decommissioning approaches based on the impacts and costs of each alternative

- 5. Environmental Consequences, Monitoring, and Mitigation
 - 5.1 Construction and Remediation Consequences
 - 5.2 Monitoring Programs
 - 5.3 Mitigation Measures
 - 5.4 Unavoidable Adverse Environmental Impacts
 - 5.5 Relationship Between Short-term Uses and Long-term Productivity
 - 5.6 Irreversible and Irretrievable Commitments of Resources

- 6. Costs and Benefits Associated with Decommissioning Alternatives
 - 6.1 General
 - 6.2 Quantifiable Socioeconomic Impacts
 - 6.3 Cost-Benefit Summary
 - 6.4 Environmental Justice
 - 6.5 Staff Assessment

- 7. List of Preparers

- 8. List of Agencies, Organizations, and Persons Receiving Copies of the Draft EIS

- 9. References

- Appendix A - Comments on DEIS

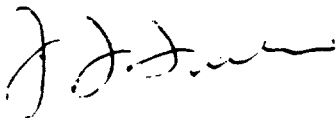
- Appendix B - Results of Scoping Process



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 31, 1995

MEMORANDUM TO: Division Directors, Deputy Directors,
Branch Chiefs and Section Leaders, NMSS

FROM: John J. Linehan, Director
Program Management, Policy Development
and Analysis Staff, NMSS 

SUBJECT: NMSS POLICY AND PROCEDURES LETTER 1-48, PROCEDURES
FOR PREPARING ENVIRONMENTAL ASSESSMENTS

On January 10, 1995, the subject NMSS Policy and Procedures Letter (P&P Letter) was issued to Division Directors through Section Leaders, NMSS. Since issuance of P&P Letter 1-48, the Office of Nuclear Regulatory Research has issued additional NRC procedures which relate specifically to preparation of Rulemaking Environmental Assessments. These procedures also require consultation with the States, and have been incorporated as a part of the attachment to the previous NMSS P&P Letter.

Accordingly, the attachment to NMSS P&P Letter 1-48 has been revised to include the original unchanged instructions on "Procedures for Preparing Environmental Assessments" (Attachment 1) and the new instructions on "Procedure for Consultation with the States During Preparation of Rulemaking Environmental Assessment Documents" (Attachment 2). The attachment to this memorandum replaces the previous attachment to P&P Letter 1-48 in its entirety. Please review this new information carefully and disseminate the information to appropriate staff. These new procedures are effective immediately and will remain in effect until further notice.

If you have any questions, please contact Donald Loosley, PMDA, at 415-7809.

Attachment:
As stated

ATTACHMENT 1

PROCEDURES FOR PREPARING ENVIRONMENTAL ASSESSMENTS

BACKGROUND:

NMSS staff members may be required to prepare Environmental Assessments under different circumstances. The attachments that follow deal with preparation of Environmental Assessments as directed by IMNS Policy and Guidance Directive FC 84-20 and Chapters V and VI of the Fuel Cycle Licensing Branch Manual (Attachment 1) and preparation of rulemaking Environmental Assessments (Attachment 2).

When preparing Environmental Assessments, the appropriate Attachment should be consulted to ensure that NRC policy is followed.

Attachments:
As stated

PROCEDURES FOR PREPARING ENVIRONMENTAL ASSESSMENTS

BACKGROUND:

NMSS procedures for preparing Environmental Assessments (EAs) are currently contained in IMNS Policy and Guidance Directive FC 84-20 (Atch. 1) and in Chapters V and VI of the Fuel Cycle Licensing Branch Manual (Atch. 2). EAs prepared by the staff must meet the requirements of 10 CFR 51.30, and Part 51.30(a)(2) requires that a list of agencies or persons consulted be included in each EA.

In a staff requirements memorandum (SRM) dated March 9, 1994, the Commission directed the staff to report on the impact of adopting an Atomic Safety and Licensing Board recommendation that an EA include a brief summary of a consulted agency's views of the EA. The staff responded to the Commission in SECY-94-270, "Agency Policy Concerning Documentation of the Results of Consultation With Other Agencies or Persons on Environmental Assessments," dated November 2, 1994, assessing the impact and indicating its agreement with the Board's recommendation. In an SRM dated November 21, 1994, the Commission approved the staff's position and the issuance of guidance to implement this new policy.

In addition, in a letter dated April 2, 1993, (Atch. 3) the NRC committed to the Council on Environmental Quality (CEQ) that it would consult with the States on environmental issues before issuing an EA and that such contact would be documented in the EA.

PROCEDURES:

1. NMSS staff should follow the procedures in IMNS Policy and Guidance Directive FC 84-20 and in Chapters V and VI of the Fuel Cycle Licensing Branch Manual, as appropriate, when preparing EAs.
2. During preparation of an EA, the staff should consult with affected States on environmental issues and should document such contact in the EA. In addition, consultations with States and any agency or person should be summarized in the EA according to the following guidance. This guidance is not intended to change the existing requirements for consultation with other agencies or persons, the nature of such consultation, or the staff's resolution of any comments received. The staff should continue to make these determinations as in the past. This new procedure only requires that the results of any consultation be summarized in the EA or another publicly available document.
 - a. Contents of the EA

Each EA should contain the following information when consultation occurs:

- (1) the name of each State, agency (including contacted individual's name), or person consulted,
- (2) date of consultation(s),
- (3) purpose for the consultation,
- (4) brief summary of the views or comments expressed by the consulted party and the staff's resolution, and
- (5) reference to publicly available documents containing additional information, if applicable.

The discussion in the EA can be brief if consultation does not result in comments beyond general agreement. However, if significant comments are received, the summary in the EA should be more extensive. In general, the level of detail of the summaries should be comparable to the level of detail used to discuss public comments received under other regulatory activities such as rulemaking.

b. Purpose for the Consultation

The staff should briefly describe why it initiated the consultation. For example, the summary could state:

"The National Marine Fisheries Service was contacted on January X, 1995, to discuss the evaluation of the ability of short-nosed sturgeon to avoid capture after the proposed river water intake modification is made."

However, the staff may make a more general statement if it initiates the consultation to meet a programmatic requirement and not as a result of the issues involved. For example, if the staff is required by procedure to consult the designated State official before issuing an EA supporting a licensing action or exemption, the consultation could be summarized as follows:

"In accordance with Procedure NNN, the staff consulted with the State of _____ regarding the environmental impact of the proposed action."

c. Summary of Comments Received

(1) Minor Comments

If no significant comments are received during the consultation, the summary need only state, for example, that there was "agreement," "no objection," or "no comment." Additional information can be included but is not required.

(2) Significant Comments

If the staff receives extensive comments, it may choose to summarize details of the issues and their resolution in the EA or in a separate document referenced in the EA. If, because of the number or complexity of the comments a separate document is used, the document should be placed in the NRC Public Document Room (PDR) and local PDR to ensure public access unless release of the material is prohibited by regulations (e.g., because it is proprietary or safeguards information). Whenever possible, the summary should be included in documents already being prepared as part of the action to avoid creating additional documents. However, if a new document must be prepared, a memorandum to file or letter to the agency confirming agreements, with a copy to the PDR, would be sufficient.

If the staff prepares a separate document to summarize the comments received, the EA should still describe the general subjects of the comments and their resolution, and reference the document where more detail can be found.

Attachments: As stated (3)



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555-0001

FEB 9 1994

MEMORANDUM FOR: Those on Attached List

FROM: Carl J. Paperiello, Director
Division of Industrial and
Medical Nuclear Safety, NMSS

SUBJECT: REVISION 1, SUPPLEMENT TO POLICY AND GUIDANCE DIRECTIVE
FC 84-20: "IMPACT OF REVISION OF 10 CFR PART 51 ON
MATERIALS LICENSE ACTIONS"

This supplement replaces the supplement to FC 84-20 dated February 19, 1992, and provides guidance on materials license actions that qualify for categorical exclusion under 10 CFR 51.22(c)(14)(i) through (xv), and also guidance for determining when field studies and other materials license actions are eligible for categorical exclusion in accordance with 10 CFR 51.22(c)(14)(xvi).

BACKGROUND:

Licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review include those actions listed in § 51.22(c)(14)(xvi), which states:

(14) Issuance, amendment, or renewal of materials licenses issued pursuant to 10 CFR parts 30, 31, 32, 33, 34, 35, 36, 39, 40 or part 70 authorizing the following types of activities:

. . . .

(xvi) Any use of source, byproduct, or special nuclear material not listed above which involves quantities and forms of source, byproduct, or special nuclear material similar to those listed in paragraphs (c)(14)(i) through (xv) of this section (Category 14)

If a particular materials license action does not fall under a categorical exclusion in §§ 51.22(c)(14)(i) through (xv), it may still be eligible for exclusion under § 51.22(c)(14)(xvi). However, as stated in the March 1, 1984 memorandum, from the Deputy Director, Office of Nuclear Material Safety and Safeguards (NMSS), (See Attachment to PG&D FC 84-20), the Commission has directed the staff, in a Staff Requirement Memorandum, dated February 28, 1984, to prepare:

"a written memorandum explaining why the action qualifies for the categorical exclusion (emphasis in original) selected. The written memorandum shall include a discussion of the factors listed in the

Attachment 1

MAR 9 1994

selected subsections¹ and shall become part of the permanent docket or record relating to that action."

This written memorandum should be signed by the Director, Division of Industrial and Medical Nuclear Safety (IMNS), NMSS, or his delegate, and should be included in the license file.

As noted in Policy and Guidance Directive (PG&D) FC 84-20, the NRC may prepare an EA or statement in any case as it deems appropriate, regardless (emphasis added) of whether it is covered by a categorical exclusion. The preparation of all EAs or statements for materials license actions needs to be coordinated with NMSS.

GUIDANCE:

Guidance on the use of categorical exclusions is provided below in three sections for convenience: (I) Exclusions under § 51.22(c)(14)(i) through (xv). (II) Exclusions under § 51.22(c)(14)(xvi), and (III) Exclusions based on license actions found to be within the safety envelope of previous license actions that qualified under I and II.

I. License Actions That Qualify for Categorical Exclusion Under §§ 51.22(c)(14)(i) through (xv)

Since these license actions do not need an EA, coordination with NMSS with regard to an EA normally is not needed. However, in the case of novel or unusual license applications in this category, the regions should consult with NMSS, at an early stage of the review, on the possible need for an EA.

(A) License actions that clearly qualify for categorical exclusion under §§ 51.22(c)(14)(i) through (xv) - Such license actions, except for license termination actions (see Section I.(B)(i) below), do not need an EA or documentation in the license file with regard to the issue of an EA. Nor do such license actions need to be coordinated with NMSS with regard to whether an EA is needed.

(B) License actions that qualify for categorical exclusion under §§ 51.22(c)(14)(i) through (xv) based on additional technical and/or license-based justifications - Such license actions do not need an EA. Nor do such license actions necessarily need to be coordinated with NMSS with regard to whether an EA is needed. Unless otherwise stated below, the licensing staff needs to place, in the license file, written justification to support the determination that an EA is not needed. Examples of license actions which will need either documentation or justification are discussed below.

¹ The "selected subsections" are §§ 51.22(c)(9), (c)(11, or (c)(14)(xvi). For materials licensees, the only exclusion that applies is § 51.22(c)(14)(xvi).

(i) **All license termination actions** - Documentation is required regardless of whether a license termination action clearly qualifies for a categorical exclusion under §§ 51.22(c)(14)(i) through (xv).

(a) For routine license termination actions that clearly qualify for categorical exclusion under §§ 51.22(c)(14)(i) through (xv), the close out survey and the submitted form NRC-314 which certifies the proper disposition of the licensee's radioactive materials, are sufficient documentation. Additional documentation for more complex license termination actions will be determined by the regions on a case-by-case basis. Only complex license termination actions, such as a license action that requires the submittal of a decommissioning plan (e.g., 10 CFR 30.36(c)(2)(i)), will require documentation of the justification to support why an EA is not needed. In many cases, such license actions need to be coordinated with the Division of Low-Level Waste and Decommissioning (LLWM) of NMSS (see Section (c) below). LLWM is responsible for providing the justification for any license termination action the regions has coordinated with LLWM.

(b) For license actions that qualify for categorical exclusion under §§ 51.22(c)(14)(i) through (xv) based on additional technical and/or license-based justification, the licensing staff will need to place in the license file, justification to support a determination that an EA is not needed. License termination actions for this group of licenses, if the justification has already been provided for the license, can follow section (a) above. Otherwise, the necessary justification needs to be placed in the license file.

(c) LLWM will coordinate with IMNS for the determination on whether an EA is needed (see Enclosure C), on those actions which have been referred to them. Unless otherwise noted, the regions can use LLWM's responses to them concerning decommissioning activities as the region's justification to support a determination that an EA is not needed.

(ii) **The performance of field studies in which licensed material originating onsite is deliberately released directly into the environment for the purposes of the study** - If a research and development or academic institution application proposes to release to the environment radioactive materials that originated onsite (i.e., within the controlled property of the licensee), an EA is normally not needed and is covered under categorical exclusion § 51.22(c)(14)(v) provided²:

² Even if a particular license action will meet these criteria, the Region can request NMSS to make a determination on whether a Sholly-type notice should be issued (see footnote 3 below).

(a) All releases, originating onsite, to the environment (e.g., air and liquid effluents, direct radiation from deposition of radioactive materials from the release (e.g., groundshine), etc.) comply with ALARA and Part 20 requirements.

(b) To assist in demonstrating compliance with the requirements of 10 CFR Part 20, the licensee should set ALARA goals for air effluents at a modest fraction of the values in Appendix B, Table 2, Columns 1 and 2, to §§ 20.1001-20.2401. Experience indicates that values of about 10 millirems per year from all of the licensee's radioactive air effluents should be practicable for almost all materials facility licensees (see Regulatory Guide 8.37). Therefore, as a first step toward demonstrating compliance with ALARA for radioactive air effluents, the licensee demonstrates that the nearest member of the general public receives no more than 10 millirems per year from all of the licensee's radioactive air effluents (i.e., licensee demonstrates it meets the Environmental Protection Agency's air emission standard).

(c) All releases onsite comply with all applicable decommissioning requirements (e.g., decommissioning recordkeeping requirements pursuant to 10 CFR 30.35(g), etc.) and current decommissioning policies.

Documentation that supports the licensee's application as meeting the above criteria is sufficient to support why an EA is not needed. For license actions that cannot meet the above criteria, the regions should coordinate with IMNS to determine whether an EA is needed. For example, an EA would be required for discrete sources released to the environment, that originated onsite, and which may not be recovered at the conclusion of the study or decommissioning.

II. License Actions That Qualify For Categorical Exclusion Under § 51.22(c)(14)(xvi)

All license actions that qualify for categorical exclusion under § 51.22(c)(14)(xvi) will require a Technical Assistance Request (TAR) to IMNS. The Director, IMNS, or his delegate, will respond to the TAR with a memorandum to the region that originated the TAR. In addition, the Director, IMNS, or his delegate, may choose to publish a notice in the FEDERAL REGISTER, similar to that required by 10 CFR 50.91(a)³, on the availability, to the public, of the IMNS memorandum. Upon completion of all IMNS actions, the IMNS memorandum is to be included in the official license file.

³ These FR notices are commonly referred to as Sholly Notices, which declare to the public that no significant hazards, based on staff analysis, will result following the approval of such license actions.

(A) Field Studies - Supplemental information to the Final Rule (49 CFR, 9352, March 12, 1984,) page 9377, for "use of radioactive materials for research and development and for educational purposes" concerning categorical exclusion § 51.22(c)(14)(v) states:

"This categorical exclusion does not encompass (a) processing or manufacturing, (b) performance of field studies in which licensed material is deliberately released directly into the environment for purposes of the study, or (c) use of radioactive tracers in field flood studies involving secondary and tertiary oil and gas recovery."

Thus, field studies in which licensed material is deliberately released directly into the environment,⁴ for purpose of the study, or use of radioactive tracers in field flood studies involving secondary and tertiary oil and gas recovery, cannot, by themselves, qualify for categorical exclusion under § 51.22(c)(14)(v). However, if such studies qualify for categorical exclusion under § 51.22(c)(14)(xvi), an EA will not be needed. Enclosure A gives an example of a field study which did not require an EA.

To expedite the processing of the TAR, the Regions should perform an initial technical assessment, to be enclosed with the TAR, to justify why the field study qualifies for categorical exclusion under § 51.22(c)(14)(xvi). Enclosure B provides the type of information that should be submitted to assist the Director, IMNS, or his delegate, in developing the necessary documentation, to be placed in the licensee's file, as directed by the Commission under categorical exclusion § 51.22(c)(14)(xvi).

(B) Others - Paragraph 51.22(c)(14)(xvi) of 10 CFR Part 51 can also be used for license actions, other than field studies, as justification for not performing an EA. A TAR to IMNS will be needed. The Regions should perform either an initial technical assessment or provide the license-based rationale (i.e., based on the licensing, inspection, and other information) on why the particular license action qualifies for categorical exclusion under § 51.22(c)(14)(xvi). Enclosures C and D give examples of the type of information that should be submitted to the Director, IMNS, or his delegate, in developing the necessary documentation, to be placed in the licensee's file, as directed by the Commission for not performing an EA under categorical exclusion § 51.22(c)(14)(xvi).

III. License Actions That Have Been Found To Be Within The Safety Envelope Of Previous License Actions That Qualified Under Categorical Exclusion §§ 51.22(c)(14)(i) through (xvi)

⁴ The staff interprets these releases to be those that originated offsite.

12 9. 1994

Multiple Addressees

6

If a previous technical and/or license-based analysis had been performed which bounded the environmental radiological hazards to the public for the specific generic issue and the Region believes its specific license action is within the safety envelope of the previous generic analysis, the Region can cite the previous generic analysis, document its rationale for making this assessment, and file copies of the previous analysis and its rationale in the license file. No coordination with NMSS is necessary. If the previous analysis referenced categorical exclusion § 51.22(c)(14)(xvi), the documentation shall include the original memorandum from the Director, IMNS, or his delegate.



Carl J. Paperiello, Director
Division of Industrial and
Medical Nuclear Safety, NMSS

Enclosures:

- A. Memo fm C. Paperiello to R. Bellamy dtd 12/8/93
- B. Note fm D. Howe to File dtd 11/23/93
- C. Memo fm C. Paperiello to W. Axelson dtd 11/16/93
- D. Memo fm C. Paperiello to C. Hehl dtd 10/20/93

MEMORANDUM FOR: Those on Attached List

C. H. Hehl, Director
 Division of Radiation Safety and Safeguards, RI

J. Philip Stohr, Director, Director
 Division of Radiation Safety and Safeguards, RII

William L. Axelson, Director
 Division of Radiation Safety and Safeguards, RIII

Dwight D. Chamberlain, Acting Director
 Division of Radiation Safety and Safeguards, RIV

Ross A. Scarano, Director
 Division of Radiation Safety and Safeguards, RV

John E. Glenn, Chief
 Medical, Academic, and Commercial
 Use Safety Branch
 Division of Industrial and
 Medical Nuclear Safety, NMSS

Frederick C. Combs, Chief
 Operations Branch
 Division of Industrial and
 Medical Nuclear Safety, NMSS

Robert L. Baer, Chief
 Source Containment and Devices Branch
 Division of Industrial and
 Medical Nuclear Safety, NMSS

Charles J. Haughney, Chief
 Storage & Transport Systems Branch
 Division of Industrial and
 Medical Nuclear Safety, NMSS

MEMORANDUM FOR: Regional Administrators

Branch Chiefs
Division of Fuel Cycle and Material Safety

SUBJECT: POLICY AND GUIDANCE DIRECTIVE 84-20; IMPACT OF
REVISION OF 10 CFR PART 51 ON MATERIAL LICENSING
ACTIONS

The purpose of this directive is to inform you of recent changes in 10 CFR Part 51 as they relate to material licensing actions outside the fuel cycle.

On March 12, 1984, 10 CFR Part 51, "Licensing and Regulatory Policy and Procedures for Environmental Protection," was completely revised with an effective date of June 7, 1984 (49 FR 9352, see also 49 FR 24512, June 14, 1984).

The basic policy on environmental assessments, environmental statements, and findings of no significant impact (formerly called negative declarations) remains unchanged; that is, most non-fuel cycle licensing actions are covered by "categorical exclusions" in Sections 51.22 (c)(10) and (14) and therefore do not require environmental analyses.

However, licensing actions for the following activities are not covered by categorical exclusions:

1. Use of radioactive tracers in field flood studies involving secondary and tertiary oil and gas recovery.
2. Performance of field studies in which licensed material is deliberately released directly into the environment for purposes of the study. (The use of tracers in well-logging is specifically covered by the categorical exclusion in Section 51.22(c)(14)(xi).)
3. Processing of source material for extraction of rare earth and other metals (currently licensed in Headquarters only).
4. Waste brokers who are authorized to store waste more than 180 days, or possess more than 50 curies of radioactive material.
5. Any commercial waste disposal (currently licensed in Headquarters only).

Applicants for new licenses, renewals, and certain amendments involving activities Nos. 1 and 3 above will be required to submit environmental reports in accordance with Section 51.60.

→
SURNAME →

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DEC 0 8 1984

Any new license, amendment, or renewal application received after June 6, 1984, which involves an activity not covered by a categorical exclusion, will require an environmental assessment in accordance with Section 51.21. Any such application received by the Regions should be identified to Headquarters as soon as possible so that specific guidance can be provided for meeting this requirement.

Any pending application received before June 7, 1984, which does not appear to be covered by a categorical exclusion, should be identified to Headquarters for guidance. NMSS and ELD will review the specific case to determine how the new Part 51 applies.

Note that Sections 51.22 (c)(11) and (c)(14)(xvi) provide generic categorical exclusions. The Commission has indicated that there should be careful documentation in cases where these exclusions are applied. For such cases, an explanatory memorandum, signed by the appropriate Division Director or his delegate, should be included in the license file. (See Enclosure for more details.)

Also note that Sections 51.20, 51.21, and 51.22 provide that NRC may prepare an environmental assessment or statement on any case as it deems appropriate, regardless of whether it is covered by a categorical exclusion.

Questions regarding 10 CFR Part 51 as it applies to non-fuel cycle licensees may be directed to Vandy Miller (FTS-427-4002).

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

Enclosure:
Memo to Multiple Addressees fm
DBMausshardt dtd 3/1/84

Record note: All Regions and ELD reviewed draft. Minor comments were incorporated.

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

MAR 1 1994

MEMORANDUM FOR: Division Directors, Deputy Directors,
and Branch Chiefs, NMSS

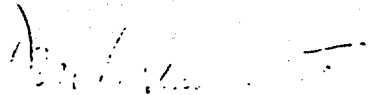
FROM: Donald B. Mausshardt, Deputy Director
Office of Nuclear Material Safety
and Safeguards

SUBJECT: REVISION TO 10 CFR PART 51 - SECY-83-286

The attached memorandum from the Office of the Secretary is provided for your review and information. The Commission has requested that special procedures be followed in implementing Section 51.22 (c)(9), (c)(11), and (c)(14)(xvi) of the revised rule. A copy of revised Section 51.22, as approved by the Commission, is attached for your reference.

The written memoranda referred to in the SECY memo should be signed by the appropriate NMSS Division Director and entered into the permanent docket or other record concerning each action eligible for categorical exclusion under 51.22 (c)(9), (c)(11), or (c)(14)(xvi).

Please ensure that these procedures are followed in all eligible actions.


Donald B. Mausshardt, Deputy Director
Office of Nuclear Material Safety
and Safeguards

Attachments: As stated



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

NRC/NMSS - Appropriate
Action

February 28, 1984
R E V I S E D

Cys: Dircks DeYoung
Roe Minoque
Rehm Kerr, SF
Stello
GCunningham

OF THE
SECRETARY

MEMORANDUM FOR: William J. Dircks, Executive Director
for Operations
FROM: ^{U. Bate} Samuel J. Chilk, Secretary
SUBJECT: SECY-83-286 - REVISION TO 10 CFR PART 51
AND RELATED CONFORMING AMENDMENTS -
IMPLEMENTATION OF CEQ NEPA REGULATIONS

In approving SECY-83-286 the Commission (with Commissioner Roberts disapproving) agreed that in implementing Section 51.22(c) (9), (c) (11), and (c) (14) (xvi) of the revised rules the following will apply:

"For each action eligible for categorical exclusion under paragraphs (c) (9), (c) (11) or (c) ~~(14)~~ (xvi) of 10 CFR 51.22, the appropriate NRC staff director will prepare a written memorandum explaining why the action qualifies for the categorical exclusion selected. The written memorandum shall include a discussion of the factors listed in the selected subsections and shall become part of the permanent docket or record relating to that action."

You should assure that the above requirement is implemented by the staff.

- cc: Chairman Palladino
- Commissioner Gilinsky
- Commissioner Roberts
- Commissioner Asselstine
- Commissioner Bernthal
- OGC
- OPE
- PDR - Advance

Rec'd Off. EDD
Date... 2-29-84
Time... 8:30

CHAPTER V

Environmental Reviews

BACKGROUND

The National Environmental Policy Act of 1969 (NEPA) requires an environmental review be conducted for all major federal actions significantly affecting the quality of the human environment. NEPA requires that the environmental effects and values be identified so they can be evaluated with respect to the economic and technical considerations. The environmental information must be available to both those making the decisions and the public prior to approval of any proposed action. Within the NRC, licensing and rulemaking actions are considered major federal actions.

ENVIRONMENTAL IMPACT STATEMENTS (EIS)

The actions which require the NRC to prepare an EIS are specified in 10 CFR 51.20. The licensing actions associated with the FCLB which would require an EIS are:

1. issuance of a license to possess and use special nuclear material for processing and fuel fabrication, scrap recovery, or conversion of uranium hexafluoride pursuant to 10 CFR Part 70,
2. issuance of a license to possess and use source material for uranium milling or production of uranium hexafluoride pursuant to 10 CFR Part 40,
3. issuance of a license for a uranium enrichment facility.

If the proposed action is one requiring an EIS, then an Environmental Assessment (EA) need not be prepared. If an EIS is to be prepared, then the regulations specified in 10 CFR Part 51 describing the procedure for preparing an EIS must be followed.

ENVIRONMENTAL ASSESSMENTS (EA)

An EA is defined as a concise public document that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI). The EA should demonstrate compliance with NEPA when no EIS is necessary or facilitate the preparation of an EIS when one is necessary.

Attachment 2

Renewal of the following types of licenses require an EA.

1. Uranium Fuel Fabrication Facilities (e.g., Westinghouse Electric, Combustion Engineering, Nuclear Fuel Services, etc.)
2. Uranium Conversion Facilities (e.g., Allied Signal, Inc.)
3. Fresh Fuel Storage at Reactor Sites (e.g., Tennessee Valley Authority)
4. Critical Mass Facilities (e.g., U.S. Army, IRT Corporation, Dept. of Commerce, etc.)
5. Fuel Cycle Research and Development Facilities (e.g., General Electric-Vallecitos)
6. Source Material - Ore processing (e.g., Cabot Corp., Shieldalloy Metallurgical Corp., etc.)

Amendment requests that generally require an EA are those proposing a significant change in the amount of effluents, a change in processes, addition of new processes, or an increase in possession limits. An EA may be prepared, at the discretion of NRC management, for a license amendment request meeting the criteria for a Categorical Exclusion (CE).

Licensing actions where an exemption from the regulations is requested also require an EA.

As specified in 10 CFR 51.30, an EA shall contain, as a minimum, the following information:

1. Description of the proposed action.
2. The need for the proposed action.
3. Reasonable alternatives to the proposed action.
4. Environmental impacts of the proposed action and alternatives, as appropriate.
5. A list of agencies and persons consulted and identification of sources used.

After the EA is completed, the decision to prepare a FONSI or an EIS is made. A FONSI is appropriate if there is no significant impact to the environment. An EIS should be prepared if there are major unresolved safety issues that would adversely impact the human health and safety or the environment.

After the FONSI is prepared (see Exhibit 13), it will be published in the *Federal Register* in accordance with the requirements of 10 CFR 51.35 (see Chapter XII).

November 17, 1994

CATEGORICAL EXCLUSIONS (CE)

Usually, FCLB licensing actions are either categorically excluded from an environmental review or require an environmental assessment (EA). The criteria for categorical exclusions (CE) is listed in 10 CFR 51.22. Generally, the renewal applications for educational institutions meet the criteria for a CE (10 CFR 51.22(c)(14)(v)). The majority of license amendment applications will also meet one of the criteria for a CE. A CE and its inclusion in the SER are discussed in Chapter IV of this manual.

REFERENCES

See Exhibit ~~12~~ and Chapter XII, Publishing NUREG Reports.

EXHIBIT 12

FORMAT FOR ENVIRONMENTAL ASSESSMENT (EA)

Letter Head:
DOCKET: 70-0125
LICENSEE: Nuclear Products, Inc., Spring Hills, Virginia
SUBJECT: ENVIRONMENTAL ASSESSMENT FOR LICENSE AMENDMENT OR RENEWAL REQUEST DATED _____, <u>(Describe Amendment Request)</u>
INTRODUCTION
PROPOSED ACTION
NEED FOR THE PROPOSED ACTION
ALTERNATIVES TO THE PROPOSED ACTION
EFFLUENT MONITORING
Liquid Effluents Gaseous Effluents Solid Waste
ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION
Radiological Non-Radiological
AGENCIES AND PERSONS CONTACTED
State whether other agencies or persons were consulted and include a list of the documents that were utilized in assessing the proposed action. If the list of documents is extensive, create a separate reference section.
CONCLUSION
<u>Principal Contributor(s):</u> William Henderson Jeffery Simpleton Joan Archer

CHAPTER VI

Finding of No Significant Impact (FONSI)

BACKGROUND

Upon completion of an Environmental Assessment (EA), it will be determined whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI) for the proposed action. The FONSI will be prepared if, based on the EA, it can be determined that there is no significant impact on the environment. In accordance with 10 CFR 51.35, the FONSI will be published in the *Federal Register*. The Commission shall not take the proposed action (issue a new license, an amendment, or renewal) until after the final finding has been published in the *Federal Register*. The initial Federal Register Notice, generally the FONSI, must contain an opportunity for a hearing.

As shown below, 10 CFR 51.32 explains what needs to be included in a FONSI:

51.32 Finding of No Significant Impact

(a) A finding of no significant impact will:

- (1) Identify the proposed action;
- (2) State that the Commission has determined not to prepare an environmental impact statement for the proposed action;
- (3) Briefly present the reasons why the proposed action will not have a significant effect on the quality of the human environment;
- (4) Include the environment assessment or a summary of the environmental assessment. If the assessment is included, the finding need not repeat any of the discussion in the assessment but may incorporate it by reference;
- (5) Note any other related environmental documents; and
- (6) State that the finding and any related environmental documents are available for public inspection and where the documents may be inspected.

After completing the EA and FONSI, either a letter to the licensee will be prepared (see Exhibit 14) transmitting copies of the documents, or the documents can be included as part of the final licensing package (new license, amendment, or renewal).

REFERENCES

See Exhibits 13 and 14

November 23, 1994

EXHIBIT 13

FORMAT FOR FINDING OF NO SIGNIFICANT IMPACT (FONSI)

(Bond Paper)

NOTE: 1.5 SPACING SHOULD BE USED

7590-01

U.S. NUCLEAR REGULATORY COMMISSION
FINDING OF NO SIGNIFICANT IMPACT AND
NOTICE OF OPPORTUNITY FOR A HEARING
(ISSUANCE/RENEWAL/AMENDMENT) OF MATERIALS
LICENSE SNM-XXX
NUCLEAR PRODUCTS, INC.
SPRING HILLS, VA
DOCKET 70-0125

The U.S. Nuclear Regulatory Commission is considering the issuance/renewal/amendment of Special Nuclear Material License SNM-333 to (describe the amendment) at the Nuclear Products, Inc., facility located in Spring Hills, Virginia.

SUMMARY OF THE ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The Need for the Proposed Action:

Environmental Impacts of the Proposed Action:

Alternatives to the Proposed Action:

Agencies and Persons Consulted:

State whether other agencies or persons were consulted and include a list of the documents that were utilized in assessing the proposed action. If the list of documents is extensive, create a separate reference section.

Conclusion:

FINDING OF NO SIGNIFICANT IMPACT

The Commission has prepared an Environmental Assessment related to the (issuance/renewal/amendment) of Special Nuclear Material License SNM-333. On the basis of the assessment, the Commission has concluded that environmental impacts that would be created by the proposed action would not be significant and do not warrant the preparation of an Environmental Impact Statement. Accordingly, it has been determined that a Finding of No Significant Impact is appropriate.

The Environmental Assessment and the documents related to this proposed action are available for public inspection and copying at the Commission's Public Document Room at the Gelman Building, 2120 L Street NW, Washington, DC. (NOTE: Add LPDR, and the address, if appropriate.)

CONTINUED 

**EXHIBIT 13
(Continued)**

FORMAT FOR FINDING OF NO SIGNIFICANT IMPACT (FONSI)

NOTE: 5 SPACING SHOULD BE USED.

2

OPPORTUNITY FOR A HEARING

Any person whose interest may be affected by the issuance of this (license/amendment/renewal) may file a request for a hearing. Any request for hearing must be filed with the Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, within 30 days of the publication of this notice in the Federal Register; be served on the NRC staff (Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852) and on the licensee (insert licensee name and address), and must comply with the requirements for requesting a hearing set forth in the Commission's regulation, 10 CFR Part 2, Subpart L, "Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings."

These requirements, which the requestor must address in detail, are:

1. The interest of the requestor in the proceeding;
2. How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing;
3. The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and
4. The circumstances establishing that the request for hearing is timely, that is, filed within 30 days of the date of this notice.

In addressing how the requestor's interest may be affected by the proceeding, the request should describe the nature of the requestor's right under the Atomic Energy Act of 1954, as amended, to be made a party to the proceeding; the nature and extent of the requestor's property, financial (or other i.e., health, safety) interest in the proceeding; and the possible effect of any order that may be entered in the proceeding upon the requestor's interest.

Dated at Rockville, Maryland, this ___ day of ___ 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

Chief
Licensing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

EXHIBIT 14

FORMAT FOR LETTER TRANSMITTING FONSI AND EA TO LICENSEE

(Letterhead)																	
<p>Mr. Robert Jones, Director & Chief Executive Officer Nuclear Products, Inc. 123 Hickory Road Spring Hills, VA 20561</p> <p>SUBJECT: FINDING OF NO SIGNIFICANT IMPACT AND ENVIRONMENTAL ASSESSMENT (TAC NO. L12345)</p> <p>Dear Mr. Jones:</p> <p>Enclosed are copies of the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) prepared to support the issuance/renewal/amendment of Materials License SNM-333. The FONSI, which has been forwarded to the Office of the Federal Register for publication, also contains a Notice of Opportunity for Hearing in accordance with Subpart L of 10 CFR Part 2. If you have questions regarding this action, I can be reached on (301) 415-XXXX. Please reference the above TAC No. in future correspondence related to this request.</p> <p style="text-align: right;">Sincerely,</p> <p style="text-align: right;">Project Manager Licensing Section 1/2 Licensing Branch Division of Fuel Cycle Safety and Safeguards, NMSS</p> <p>Docket 70-0125 License SNM-333</p> <p>Enclosures: 1. FONSI dtd _____ 2. EA dtd _____</p>																	
(Concurrence Page)																	
<p><u>Distribution w/encls. (Control No. XXXX)</u></p> <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Docket</td> <td style="border: none;">NRC File Center</td> <td style="border: none;">PUBLIC</td> <td style="border: none;">NMSS R/F</td> <td style="border: none;">FCLB R/F</td> <td style="border: none;">FCSS R/F</td> </tr> <tr> <td style="border: none;">Env PM</td> <td style="border: none;">Region</td> <td style="border: none;">Region Contact</td> <td style="border: none;">SHO</td> <td></td> <td></td> </tr> </table>						Docket	NRC File Center	PUBLIC	NMSS R/F	FCLB R/F	FCSS R/F	Env PM	Region	Region Contact	SHO		
Docket	NRC File Center	PUBLIC	NMSS R/F	FCLB R/F	FCSS R/F												
Env PM	Region	Region Contact	SHO														
OFC	FCLB	FCLB	FCLB	FCLB													
NAME	Project Manager	Licensing Assistant	Section Leader	Branch Chief													
DATE																	

C = COVER

E = COVER & ENCLOSURE

N = NO COPY



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

APR 02 1993

Ms. Lucinda Low Swartz
Deputy General Counsel
Executive Office of the President
Council on Environmental Quality
Washington, D.C. 20503

Dear Lucy:

This is in response to your concerns about two Federal Register notices we published that discussed findings of no significant environmental impacts.

The section of the Federal Register notices that provide a discussion of alternatives to the proposed action may have been misinterpreted. We are in agreement with your interpretation of an agency's responsibility in preparing an environmental assessment. An environmental assessment with a finding of no significant impact does not excuse an agency from considering appropriate alternatives. One appropriate alternative will always be to consider the no action alternative in an environmental assessment. Although not specifically noted as the "no action" alternative, each of our discussions in the Federal Register address the no action alternative. The Commission decided that the consideration of the proposed action and the no action alternative was a reasonable range of alternatives, especially in light of the absence of significant environmental impact from the proposed action.

The Commission's decision is based on NEPA case law which holds that "the smaller the impact, the less extensive a search for alternatives can the agency reasonably be required to conduct." See, City of New York v. Department of Transportation, 715 F.2d 732, 744 (2d Cir. 1983); River Road Alliance, Inc. v. Corps of Engineers of United States Army, 764 F.2d 445 (7th Cir. 1985). In this light, since the Commission found that there was no significant impact in granting the exemption, the Commission did not need to expand the search of alternatives to include impacts of equal or greater environmental impacts. Instead, the Commission considered the "no action" alternative even after concluding that there would be no significant impact in granting the proposed action. In future discussions, we will make every effort to label the "no action" alternative as such.

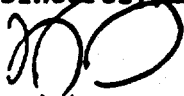
In your second concern, you have pointed out that it is an agency's responsibility to "involve environmental agencies . . . to the extent practicable, in preparing environmental assessments". In light of

Attachment 3

this requirement, our regulations do require a listing of agencies and persons consulted, and identification of sources used.

In adherence to 10 CFR 50.91, NRC has involved the affected state in license amendment actions and did so in the Northeast Nuclear Energy Company action cited. We will revise our environmental assessment procedure to ensure that state comments are obtained on environmental issues prior to issuance of the environmental assessment and that such contact is documented in the environmental assessment. Although we have not involved the states in exemptions to regulations, and did not do so in the Niagara Mohawk Power Corporation action cited, we will revise our internal procedures to ensure that the state has an opportunity to comment prior to issuance of an environmental assessment.

Sincerely,



Martin G. Malsch
Deputy General Counsel for
Licensing and Regulation

Enclosure:

1. Letter from Lucinda Low Swartz to Martin G. Malsch dated December 1, 1992 with Enclosures.



EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
WASHINGTON, D.C. 20503

December 1, 1992

Mr. Martin G. Malsch
Deputy General Counsel for
Licensing and Rulemaking
Office of the General Counsel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Marty:

Enclosed are copies of two Federal Register notices we found that discuss findings of no significant impact for actions approved at the Niagara Mohawk and Millstone nuclear power plants. A couple of things are disturbing.

First, the notices state that since it has been decided that there are no significant environmental effects that would result from the action, there is no need to consider alternatives with equal or greater environmental impact. That is just not the case.

Rather, the agency must determine the range of reasonable alternatives and analyze the environmental impacts of those alternatives, along with the proposal. Of course, what is "reasonable" depends on the situation and on the purpose and need for the proposal--a narrow proposal to address a particular need will necessarily have fewer alternatives than a proposal to address a broad problem. In any event, the "no action" alternative must always be considered.

Second, the notices indicate that NRC did not consult with other agencies or persons in preparing the environmental assessments. While I appreciate the candor, the CEQ regulations require agencies to "involve environmental agencies, applicants, and the public, to the extent practicable, in preparing [environmental] assessments...." 40 CFR § 1501.4. Again, there is a rule of reason in involving other agencies and the public, but ignoring them altogether does not fit within that rule. A simple telephone call to the EPA regional office and/or the local watchdog group may have been all that was necessary.

I certainly do not disagree with the "no significant impact" finding in either of these cases, but there does seem to be some misunderstanding on the part of the NRC staff as to the

Letter to Martin G. Malsch
December 1, 1992
Page Two

requirements of the environmental assessment process. I would appreciate your looking into this, and letting me know what you find out.

Best regards,



Lucinda Low Swartz
Deputy General Counsel

Enclosures

ATTACHMENT 2

PROCEDURE FOR CONSULTATION WITH THE STATES DURING
PREPARATION OF RULEMAKING ENVIRONMENTAL ASSESSMENT DOCUMENTS

BACKGROUND:

In a memorandum dated December 6, 1994 (Attachment 1), the Executive Director for Operations (EDO) directed the Office of Nuclear Regulatory Research (RES), the Office of Nuclear Reactor Regulation (NRR), and the Office of Nuclear Material Safety and Safeguards (NMSS) to prepare procedures for consultations with the States before issuance of Environmental Assessments (EAs). These procedures would respond to the NRC's commitment to the Council on Environmental Quality (CEQ) to consult with the States on environmental issues before issuing an EA, and to document such consultation in the EA. (Attachment 2)

Since RES has the primary responsibility for Rulemaking, the EDO specifically directed RES to prepare the procedure for consulting the States on rulemaking EAs and coordinate the development of such procedure with NRR and NMSS.

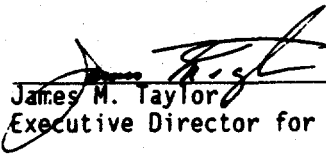
PROCEDURE:

1. This procedure is intended only for EAs that are prepared for a rulemaking action. Not every rule requires preparation of an EA; some rules fall under categorical exclusions listed in 10 CFR Part 51.22(c) (see NUREG/BR-0053, Rev. 2, "NRC Regulations Handbook," December 1989, pages 47 and 143).
2. Staff in all NRC Offices who are assigned the responsibility of issuing a rule should follow, in addition to this procedure, their internal Office, Division, or Branch procedures, as appropriate, when preparing the EA in support of the rule.
3. After the Federal Register Notice (FRN) for the proposed rule is signed by the Secretary or the EDO, and prior to its publication in the Federal Register for public comments, the staff should prepare a generic cover letter with copies of the draft EA and the FRN addressed to "State Liaison Officers", and request States' comments on the FRN and the draft EA. This letter will serve to inform the States of the publication of the FRN, also to actively solicit their views, whether generic or site-specific, on any environmental issues discussed in the draft EA. This will be the mode of NRC consultation with the States on rulemaking EAs, i.e., to request from them that they send their comments to NRC (more on methods of transmitting the comments in step #5 below). The staff should request a reply date that allows the same number of days that are allowed for public comments in the FRN. A sample generic

cover letter to State Liaison Officers is enclosed as Attachment 3. The list of State Liaison Officers is maintained by the Office of State Programs.

4. The office issuing the proposed rule will prepare the generic cover letter as a part of the rulemaking package that is signed by the Secretary or the EDO. After the proposed rule is approved, the generic cover letter should be forwarded to the Office of State Programs for signature and dispatch to the States.
5. The staff should give the States the following three options for sending their comments: (1) by regular mail to the Secretary, (2) by Fax to the Secretary, or (3) using the NRC Electronic Bulletin Board on FEDWORLD. The draft generic letter contains details of the three transmittal options.
6. During development of the FRN and the Draft EA for the proposed rule, the staff should use for guidance NUREG/BR-0053, Rev. 2, "NRC Regulations Handbook," December 1989. (NUREG/BR-0053 contains a description of the legal requirements for rulemaking and NRC's basic internal procedures.) Specifically, the staff should use the boilerplate language in pages 44 and 45, NUREG/BR-0053. The boilerplate language on these pages has been modified (Attachment 4) to make a reference to the NRC's solicitation of comments from the States.
7. After receipt of comments from the States and the public, the staff should prepare the final EA and the final FRN, as appropriate, on the basis of the comments received and the staff's response to these comments.
8. The staff should include a separate section in the draft EA to state that the NRC mailed the draft EA to the States for their comment. This section should be entitled "STATES CONSULTED AND SOURCES USED." When the staff prepares the final EA, this section should be revised to state that the States had been consulted, and to summarize the States' comments and the staff's response to them.
9. The summary discussion in the section entitled "STATES CONSULTED AND SOURCES USED" in the final EA can be brief if comments from the States are general-agreement type comments. If significant comments are received, the summary should be more extensive. The level of detail of the summaries should be comparable to the level of detail used to discuss public comments received after issuance of a proposed rule.
10. Documentation of the States' comments in the final EA should include:

- (a) each State's agency or office (including the name of the official), and the date of receipt of the comments;
 - (d) brief summary of the views or comments expressed by each State;
 - (e) the NRC staff's response to the comments;
 - (f) reference to publicly available documents containing additional information, if applicable.
11. The staff should proceed with finalizing the EA and the FRN even if no comments are received from the States.


James M. Taylor
Executive Director for Operations.

Attachments:

1. Memorandum 12/6/94 from
J. Taylor to Office Directors
2. OGC Memorandum to CEQ
3. Sample Cover Letter
4. Proposed Replacements for
Boilerplate in Reg. Handbook

Attachment 1

Executive Director for Operations
Memorandum



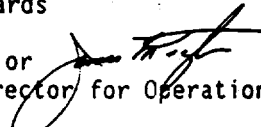
UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555-0001

December 6, 1994

MEMORANDUM TO: William T. Russell, Director
Office of Nuclear Reactor Regulation

Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

✓ Robert M. Bernero, Director
Office of Nuclear Material Safety
and Safeguards

FROM: James M. Taylor 
Executive Director for Operations

SUBJECT: STATE CONSULTATION ON ENVIRONMENTAL ASSESSMENTS

In a letter dated April 2, 1993, (Attachment 1), the NRC committed to the Council on Environmental Quality (CEQ) that it would consult with the States on environmental issues before issuing an environmental assessment (EA) and that such contact would be documented in the EA. This commitment was made in response to concerns expressed by CEQ in a letter dated December 1, 1992, (Attachment 2).

Within 3 months of the date of this memorandum, each office shall develop procedures that ensure future EAs will comply with the commitment made to CEQ and shall confirm by memorandum to Martin Malsch in the Office of the General Counsel (OGC) that the necessary internal procedures have been implemented. This memorandum should also identify the office contact responsible for the procedure and other environmental issues.

Since the Office of Nuclear Regulatory Research has primary responsibility for rulemaking, it should prepare the procedure for consulting on rulemaking EAs. The procedure should be coordinated with the Office of Nuclear Reactor Regulation and the Office of Nuclear Material Safety and Safeguards before it is finalized.

CONTACT:
S. Hoffman, NRR:PDLR
504-3245

Multiple Addressees

- 2 -

In all cases, the staff shall coordinate with OGC when developing the office procedures to ensure that the new or revised procedures meet the NRC commitments to CEQ. Questions concerning the commitments made to CEQ should be directed to Hampton Newsome in OGC at 504-1623, Room O-16F17.

In addition, the NRC anticipates guidance from the CEQ on how to take environmental justice into account when preparing documents under NEPA. Until this guidance is received, all offices will develop a procedure that addresses where environmental justice is handled in NEPA documents and coordinate such procedure with the internal NRC Environmental Justice Working Group.

Attachments: 1. April 2, 1993, Letter
2. December 1, 1992, Letter

cc: K. Cyr, OGC
R. Bangart, OSP
Regional Administrators

Attachment 2

OGC Memorandum to CEQ



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

APR 02 1993

Ms. Lucinda Low Swartz
Deputy General Counsel
Executive Office of the President
Council on Environmental Quality
Washington, D.C. 20503

Dear Lucy:

This is in response to your concerns about two Federal Register notices we published that discussed findings of no significant environmental impacts.

The section of the Federal Register notices that provide a discussion of alternatives to the proposed action may have been misinterpreted. We are in agreement with your interpretation of an agency's responsibility in preparing an environmental assessment. An environmental assessment with a finding of no significant impact does not excuse an agency from considering appropriate alternatives. One appropriate alternative will always be to consider the no action alternative in an environmental assessment. Although not specifically noted as the "no action" alternative, each of our discussions in the Federal Register address the no action alternative. The Commission decided that the consideration of the proposed action and the no action alternative was a reasonable range of alternatives, especially in light of the absence of significant environmental impact from the proposed action.

The Commission's decision is based on NEPA case law which holds that "the smaller the impact, the less extensive a search for alternatives can the agency reasonably be required to conduct." See, City of New York v. Department of Transportation, 715 F.2d 732, 744 (2d Cir. 1983); River Road Alliance, Inc. v. Corps of Engineers of United States Army, 764 F.2d 445 (7th Cir. 1985).—In this light, since the Commission found that there was no significant impact in granting the exemption, the Commission did not need to expand the search of alternatives to include impacts of equal or greater environmental impacts. Instead, the Commission considered the "no action" alternative even after concluding that there would be no significant impact in granting the proposed action. In future discussions, we will make every effort to label the "no action" alternative as such.

In your second concern, you have pointed out that it is an agency's responsibility to "involve environmental agencies . . . to the extent practicable, in preparing environmental assessments". In light of

this requirement, our regulations do require a listing of agencies and persons consulted, and identification of sources used.

In adherence to 10 CFR 50.91, NRC has involved the affected state in license amendment actions and did so in the Northeast Nuclear Energy Company action cited. We will revise our environmental assessment procedure to ensure that state comments are obtained on environmental issues prior to issuance of the environmental assessment and that such contact is documented in the environmental assessment. Although we have not involved the states in exemptions to regulations, and did not do so in the Niagara Mohawk Power Corporation action cited, we will revise our internal procedures to ensure that the state has an opportunity to comment prior to issuance of an environmental assessment.

Sincerely,



Martin G. Malsch
Deputy General Counsel for
Licensing and Regulation

Enclosure:

1. Letter from Lucinda Low Swartz to Martin G. Malsch dated December 1, 1992 with Enclosures.

Attachment 3
Sample Generic Cover Letter



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Sample Generic Cover Letter
DATE

STATE LIAISON OFFICERS

SUBJECT: [TITLE OF THE RULE]

The United States Nuclear Regulatory Commission (NRC) has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part xxx. These amendments resulted from [insert here the reason(s) that prompted the development of the proposed rule].

These amendments would [summarize the amendments here, use the sentences that appear in the Federal Register Notice]. This proposed rulemaking action will [describe here what NRC or licensee action will result from the amendments, and its net effect on public health and safety].

Also enclosed is an Environmental Assessment (EA) that has been prepared in support of the proposed rule. The conclusion of the EA is the Commission's finding that no significant environmental impact will result from the proposed rule. The EA and the FRN are provided for your review and comment. If you have any comments on the rule and its environmental impact, please send them by [insert the date here, use the same number of days allowed for public comments in the FRN]. Comments received after this date will be considered if it is practical to do so, but the [insert here the word Commission if the Secretary signed the rule, insert the NRC if the EDO signed it] is able to assure consideration only for comments received on or before this date.

You can use the following methods to transmit your comments: (1) you can mail your written comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Docketing and Service Branch, (2) you can fax your comments to [insert the Secretary fax number here, including area code], and (3) you can transmit your comments electronically to the NRC Electronic Bulletin Board on FEDWORLD using a personal computer and a modem. Instructions on how to access the Electronic Bulletin Board are enclosed.

Sincerely,

Richard L. Bangart, Director
Office of State Programs

Enclosures: As stated

INSTRUCTIONS FOR ACCESSING THE NRC ELECTRONIC BULLETIN BOARD

Comments may be submitted electronically, in either ASCII text or Wordperfect format (version 5.1 or later), by calling the NRC Electronic Bulletin Board (BBS) on FEDWORLD. The bulletin board may be accessed using a personal computer, a modem, and one of the commonly available communications software packages, or directly via Internet. Background documents on the rulemaking are also available for downloading and viewing on the bulletin board.

If using a personal computer and modem, the NRC rulemaking subsystem on FEDWORLD can be accessed directly by dialing the toll free number: 1-800-303-9672. Communication software parameters should be set as follows: parity to none, data bits to 8, and stop bits to 1 (N,8,1). Using ANSI or VT-100 terminal emulation, the NRC rulemaking subsystem can then be accessed by selecting the "Rules Menu" option from the "NRC Main Menu." For further information about options available for NRC at FEDWORLD consult the "Help/Information Center" from the "NRC Main Menu." Users will find the "FEDWORLD Online User's Guides" particularly helpful. Many NRC subsystems and databases also have a "Help/Information Center" option that is tailored to the particular subsystem.

The NRC subsystem on FEDWORLD also can be accessed by a direct dial phone number for the main FEDWORLD BBS: 703-321-8020; or by using Telnet via Internet: fedworld.gov. If using 703 number to contact FEDWORLD, then the NRC subsystem will be accessed from the main FEDWORLD menu by selecting the "Regulatory, Government Administration and State Systems," then selecting "Regulatory Information Mall." At that point, a menu will be displayed that has an option "U.S. Nuclear Regulatory Commission" that will take you to the NRC Online main menu. The NRC Online area also can be accessed directly by typing "/go nrc" at a FEDWORLD command line. If you access NRC from FEDWORLD's main menu, then you may return to FEDWORLD by selecting the "Return to FEDWORLD" option from the NRC Online Main Menu. However, if you access NRC at FEDWORLD by using NRC's toll-free number, then you will have full access to all NRC systems, but you will not have access to the main FEDWORLD system.

If you contact FEDWORLD using Telnet, you will see the NRC area and menus, including the Rules Menu. Although you will be able to download documents, and leave messages, you will not be able to write comments or upload files (comments). If you contact FEDWORLD using FTP, all files can be accessed and downloaded, but uploads are not allowed, and all you will see is a list of files without descriptions (normal Gopher look). An index file listing all files within a subdirectory, with descriptions, is available. There is a 15 minute time limit for FTP access.

Although FEDWORLD also can be accessed through the World Wide Web as well, like FTP, that mode only provides access for downloading files, and does not display the NRC Rules Menu.

For more information on NRC bulletin boards call Mr. Arthur Davis, Systems Integration and Development Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 415-5780; e-mail AXD3@nrc.gov.

Single copies of the [document name] may be obtained by written request or telefax (301-504-2260) from: Distribution Services, Printing and Mail Services Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Documents related to this rulemaking, including comments received, may be examined at the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. These same documents may also be viewed and downloaded electronically via the Electronic Bulletin Board established by NRC for this rulemaking as indicated elsewhere under the ADDRESSES heading.

FOR FURTHER INFORMATION CONTACT: [Project Manager], Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) xxx-xxxx, e-mail xxx@nrc.gov.

Attachment 4

Proposed Replacements for EA and EIS Boilerplate
in the NRC Regulations Handbook

Proposed Replacement for Proposed Rules Boilerplate on
Page 45 in the NRC Regulations Handbook

New Sentence in Bold

Finding of No Significant Environmental Impact: Availability

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR part 51, that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and therefore an environmental impact statement is not required. (Include a discussion that briefly presents the reasons why the action will not have any significant environmental impact, summarize the environmental assessment, and notes any other related environmental documents). **The NRC has sent a copy of the Environmental Assessment and this proposed rule to every State Liaison Officer and requested their comments on the Environmental Assessment.** The Environmental Assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. Single copies of the environmental assessment and the finding of no significant impact are available from.(insert name, address, and telephone number of contact person).

New Sentence in Bold

Environmental Impact Statement: Availability

As required by the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, the NRC has prepared a draft environmental impact statement on this proposed rule.

The draft environmental impact statement is available for inspection in the NRC Public Document Room, 2120 L Street, NW (Lower Level), Washington, DC. Single copies of the draft environmental impact statement may be obtained from (Name, address and telephone number of contact person).

The NRC requests public comment on the draft environmental impact statement. **The NRC has sent a copy of the Environmental Impact Statement and this proposed rule to every State Liaison Officer and requested their comments on the draft statement.** Comments on the draft statement may be submitted to the NRC as indicated under the ADDRESSES heading.

Note: Availability of the draft environmental impact statement must also be indicated under the ADDRESSES caption of the preamble.

Proposed Replacement for Final Rules Boilerplate on
Page 142 in the NRC Regulations Handbook

New Sentence in Bold

Finding of No Significant Impact: Availability

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, that this rule is not a major Federal action significantly affecting the quality of the human environment and therefore an environmental impact statement is not required. (Include a discussion that briefly presents the reasons why the action will not have any significant environmental impact, summarizes the environmental assessment, and notes any other related environmental documents). **The NRC requested the views of the States on the Environmental Assessment for this rule. [indicate whether the States' comments have been addressed, moreover whether the EA has changed as a result of the States' comments].** The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. Single copies of the environmental assessment and the finding of no significant impact are available from (insert name, address, and telephone number of contact person).

Note: Availability of the environmental assessment and finding of no significant impact must also be listed under the ADDRESSES caption of the preamble.

Proposed Replacement for Final Rules Boilerplate on
Page 141 in the NRC Regulations Handbook

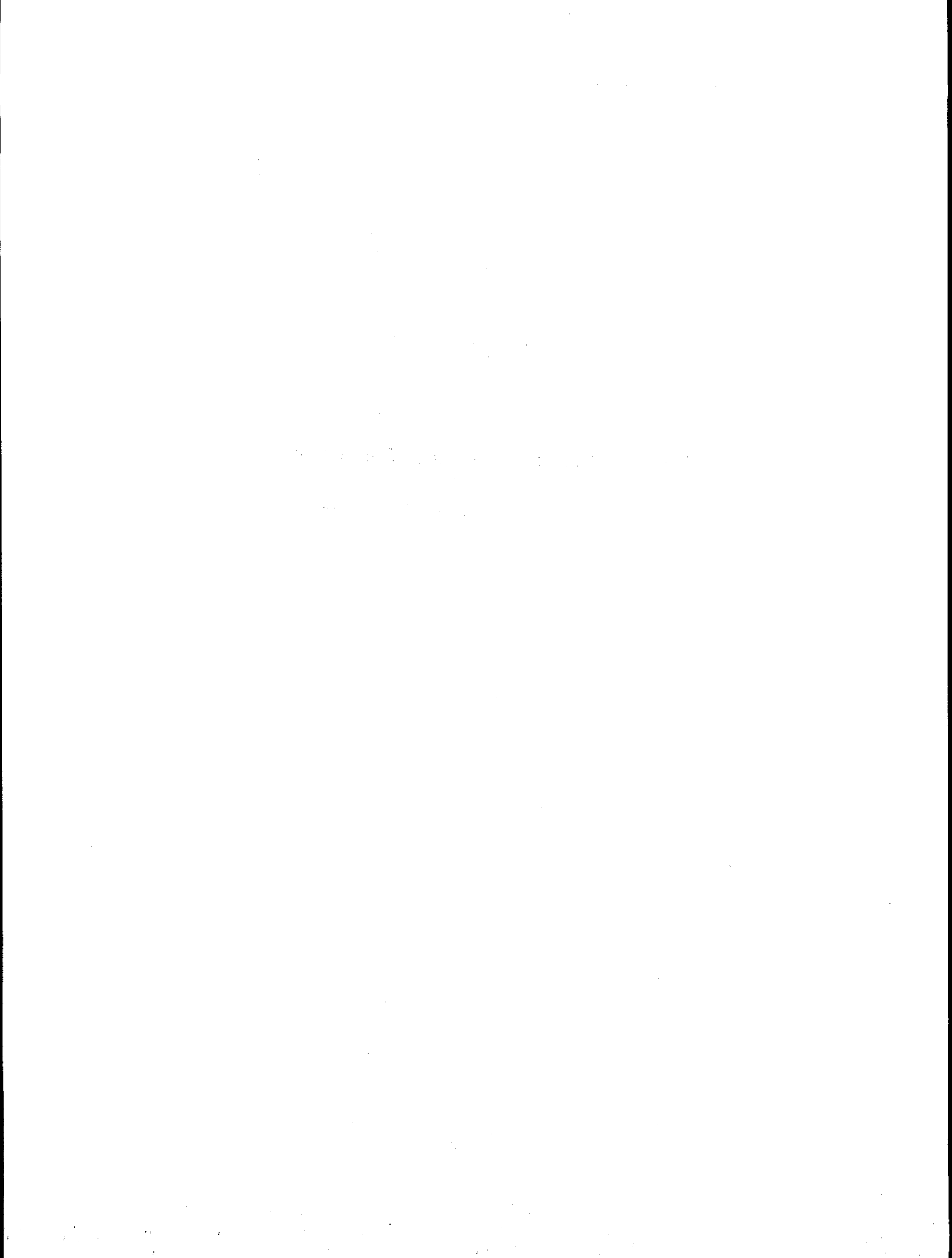
New Sentence in Bold

Environmental Impact Statement: Availability

As required by the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, the NRC has prepared a final environmental impact statement for this regulation. **The NRC requested the views of the States on the Environmental Impact Statement for this rule. [indicate whether the States' comments have been addressed, moreover whether the EA has changed as a result of the States' comments].**

The final environmental impact statement is available for inspection in the NRC public document room, 2120 L Street, NW (Lower Level), Washington, DC. Single copies of the final environmental impact statement are available from (Name, address, and telephone number of contact person).

Note: Availability of the environmental impact statement must also be indicated under the ADDRESS caption of the preamble.



APPENDIX O

NMSS Policy and Procedures Letter 1-50

"Environmental Justice in NEPA Documents"

[The page contains extremely faint and illegible text, likely bleed-through from the reverse side of the document. The text is too light to transcribe accurately.]

April 21, 1995

MEMORANDUM TO: NMSS Division Directors
 NMSS Branch Chiefs
 NMSS Section Leaders

FROM: John J. Linehan,
 Program Management, Policy Development
 and Analysis Staff
 Office of Nuclear Material Safety
 and Safeguards

SUBJECT: NMSS POLICY & PROCEDURES LETTER 1-50, Revision 1
 "ENVIRONMENTAL JUSTICE IN NEPA DOCUMENTS"

The attached NMSS Policy & Procedures (P&P) Letter 1-50, Revision 1 provides revised guidance for addressing the issue of environmental justice in NEPA reviews. Environmental justice will still be addressed in all Environmental Impact Statements, but will only be considered for special case Environmental Assessments. Management (Division Directors/Branch Chiefs) will make the determination that an environmental justice evaluation should be included in an Environmental Assessment. The agency will consider the Council on Environmental Quality (CEQ) guidance on environmental justice once it is issued, and this interim procedure will be revised as appropriate.

Please review this revised procedure and disseminate the information to the appropriate staff. This procedure is effective immediately and will remain in effect until the CEQ guidelines are issued.

If you have any questions, please contact Merri Horn, FCSS, at 415-8126.

Attachment: NMSS P&P Letter 1-50, Revision 1

cc: C. Hehl, RI
 J. Stohr, RII
 S. Ebner, RII
 C. Pederson, RIII
 S. Collins, RIV

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ENVIRONMENTAL JUSTICE IN NEPA DOCUMENTS

BACKGROUND:

On February 11, 1994, The President signed Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population" which directs all Federal agencies to develop strategies for considering environmental justice in their programs, policies, and activities. Environmental justice is described in the Executive Order as "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." The NRC will consider the Council on Environmental Quality (CEQ) guidelines on how to take environmental justice into account when preparing documents under the National Environmental Policy Act (NEPA) when they are issued. This procedure provides interim guidance on where and how environmental justice is to be handled in NEPA documents. When the CEQ guidelines are available, this interim procedure will be revised, as required.

POLICY:

It is the policy of NMSS to address environmental justice in every Environmental Impact Statement (EIS) and every supplement to an EIS that is issued by NMSS. Except in special cases, environmental justice need not be addressed for Environmental Assessments (EA) in which a Finding of No Significant Impact (FONSI) is made.

For EAs with a FONSI determination, the staff concludes as part of its analysis that there will be no significant impacts from the action. Therefore, there would be no disproportionately high and adverse effects or impacts on members of the public, including minority or low-income populations. Generally, no environmental justice evaluation need be performed. However, there will be special cases where environmental justice reviews will be required for actions in which an EA/FONSI is prepared. These cases may include regulatory actions that have substantial public interest, decommissioning cases involving onsite disposal in accordance with 10 CFR 20.2002, decommissioning/decontamination cases which allow residual radioactivity in excess of release criteria, or cases where environmental justice issues have been previously raised. Management (Division Director/Branch Chief level) will decide on a case-by-case basis when special circumstances exist that require the staff to perform an environmental justice review for an EA.

The level of discussion on environmental justice will vary based on the circumstances of each action. The actual determination of impacts will not change, the evaluation and analysis will be expanded. Environmental justice is a different manner of characterizing the impacts; it does not identify new impacts to analyze, although it does involve the collection of additional data. Each EIS or special case EA should contain a section that fully describes the environmental justice review process; the length of the section depends on the circumstances. Guidance is provided below.

PROCEDURES:

1. The first step in evaluating environmental justice potential is to obtain demographic data (census data) for the immediate site area and surrounding communities. Data for the State, county, and town will also be necessary. The demographic data should consist of income levels and minority breakdown. For the purpose of this procedure, minority is defined as individuals classified by the U.S. Bureau of the Census as Negro/Black/African American, Hispanic, Asian and Pacific Islander, American Indian, Eskimo, Aleut and other non-White persons. Low-income is defined as being below the poverty level as defined by the U.S. Census Bureau.

Guidelines for determining the area for assessment are provided in the following discussion. If the facility is located within the city limits, a 0.56 mile radius (1 square mile) from the center of the site is probably sufficient for evaluation purposes; however, if the facility itself covers this much area, use a radius that would be equivalent to 0.5 miles from the site. If the facility is located outside the city limits or in a rural area a 4 mile radius (50 square miles) should be used. (EPA is currently using 1 square mile and 50 square miles for their environmental justice profiles; they use both for each site.) These are guidelines, the geographic scale should be commensurate with the potential impact area (i.e. if impacts are predicted out to 5 miles, a 5 mile radius should be used.) The goal is to evaluate the "communities", neighborhoods, or areas that may be disproportionately impacted. You may want to consider an incremental radius (for example, if a 4 mile radius is chosen, also obtain data for the 1, 2, and 3 mile radii.) The specific census data may be difficult to obtain; one possible source is the Geographic Information System. Other sources include the applicant, local governments, state agencies, or local universities. It is recommended that you utilize the Census Bureau's 10-year census for data on minorities and income level. The Census Bureau's 10-year census data has poverty thresholds that should be used for determining the number of economically stressed households.

Use the best available information.

Use the demographic data to determine the percent minority representation and the percent of economically stressed households. These percentages should be calculated for the site area, town, county and State. Describe the demographic data in the environmental justice section of the document.

The next step is to compare the area's percent of minority population to the state and county percentage of minority population and to compare the area's percent economically stressed households to the state percent of economically stressed households. Note that the jurisdiction that the area percentage is compared to is dependent on the geographic area used in describing the demographics. (It is possible that the geographic area could cross county and state lines and this should be considered when making comparisons.) If the area percentage exceeds that of the state or county percentage (or the comparison base used) for either minority population or economically stressed households by 20 percent, the site does have an environmental justice potential and environmental justice will have to be considered in greater detail. Additionally, if either the minority or low-income population percentage exceeds 50 percent, environmental justice will have to be considered in greater detail. If neither criterion is met, the site does not have an environmental justice potential and no further evaluation is necessary. Document the conclusion in the environmental justice section.

2. Once it is determined that a site does have a potential for an environmental justice concern, it is then necessary to determine if there is a "disproportionately high and adverse" impact (human health or environmental effect) to the minority or low-income population surrounding the site. This does not involve determining if there are any new impacts; impacts of the proposed action are to be determined in the usual manner. The impacts should be evaluated to determine those that affect these populations. In considering the impacts to the populations, differential patterns of consumption of natural resources should be considered (i.e. differences in rates and/or pattern of fish, vegetable, water and/or wildlife consumption among groups defined by demographic factors such as socioeconomic status, race, ethnicity, and/or cultural attributes.) The impacts to the local area surrounding the site should be summarized in the environmental justice section. It is not necessary to discuss the impacts at the same level of detail as in the impact sections. It is acceptable to briefly mention the impact and reference the section where it is discussed in greater detail.

The next step is to determine if the impacts disproportionately impact the minority or low-income population. Are the impacts greater for these populations? Are there any impacts experienced by these populations that are not experienced by others? In cases where the population is located next to the site, the impacts or potential for impact will likely be disproportionate for these populations. For instance, potential exposure to effluents may be greater to those living closest to the facility, noise and traffic may disrupt nearby residents to a greater extent than those living far from the site, and the potential risk due to accidents may be greater for nearby residents. If there are no disproportionate impacts, environmental justice is not an issue, no further analysis would be needed. Document the findings in the environmental justice section.

Next, it is necessary to determine if the impacts are high and adverse. Another way of stating this is: are the impacts significant, unacceptable or above generally accepted norms such as regulatory limits or state and local statutes and ordinances. Each impact should be reviewed for significance. If the statement can be made that none of the impacts are significant, then there are no disproportionate adverse and high impacts on the minority or low-income populations. Document the conclusion in the environmental justice section.

3. If there are significant impacts to the minority or low-income population, it is then necessary to look at mitigative measures and benefits. Determine if there are any mitigative measures that could be taken to reduce the impact. Discuss the measures. Discuss the benefits of the project to surrounding communities. Benefits to a specific group may be difficult to determine, particularly economic benefits. The conclusion at this point is project specific. The conclusion may be that there are disproportionately high and adverse impacts to minority and low-income populations; however, the mitigative measures and/or the benefits of a project outweigh the disproportionate impacts. If this is not the case, the facts should be presented so that the ultimate decision maker can weigh all aspects in making the agency decision. The Executive Order does not prohibit taking an action where there are disproportionate high and adverse impacts to minority and low-income populations.
4. The results of an environmental justice evaluation should be documented in the EIS or special case EA. The document should contain a distinct section on environmental justice even if the demographics do not indicate a potential for an environmental justice concern. If a site has already received an environmental justice evaluation, it is

acceptable to reference the previous evaluation and provide a summary of the findings and then add any new information that results from the proposed action. For instance, if environmental justice is included in a license renewal, it would not need to be completely readdressed for a license amendment.

Staff should look at the demographics of a site early in the review process. This will enable the staff to identify affected populations and try to include the affected population in the process. If public meetings are held concerning a specific site, an attempt should be made to include any minority or low-income community in the meeting. Extra measures should be taken to ensure that minority and low-income populations are given the opportunity to participate. This may include holding public meeting in the evenings or weekends or translating notices (and other documents) into a language other than English. If a representative(s) of the affected population has been identified such as an officer of an organized local group or a community leader, the individual(s) should receive notices of meetings and copies of Federal Register notices. During scoping meetings for an EIS, NMSS staff will solicit input on environmental justice issues.

APPENDIX P

**Current NRC Guidance Documents on
Mechanisms for Assuring Funds for Decommissioning**

CURRENT NRC GUIDANCE DOCUMENTS ON
MECHANISMS FOR ASSURING FUNDS FOR DECOMMISSIONING

- NUREG-1337, Rev 1, "Standard Format and Content for the Review of Financial Assurance Mechanisms for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72."
- Regulatory Guide 3.66, "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning under 10 CFR Parts 30, 40, 70, and 72." This Regulatory Guide contains several checklists that should be used by the LR/PM to evaluate the components of the licensee's financial assurance for decommissioning.
- Policy and Guidance Directive PG 8-11, "NMSS Procedures for Reviewing Declarations of Bankruptcy."
- NUREG/CR-1754, "Technology, Safety and Costs of Decommissioning Reference Non-Fuel-Cycle Nuclear Facilities."
- NUREG/CR-0129, "Technology, Safety and Costs of Decommissioning a Reference Small Mixed Oxide Fuel Fabrication Plant."
- NUREG/CR-1266, "Technology, Safety and Costs of Decommissioning a Reference Uranium Fuel Fabrication Plant."
- NUREG/CR-1757, "Technology, Safety and Costs of Decommissioning a Reference Uranium Hexafluoride Conversion Plant."
- NUREG/CR-2210, "Technology, Safety and Costs of Decommissioning a Reference Independent Spent Fuel Storage Installation."
- NUREG/CR-2241 "Technology, Safety and Costs of Termination Surveys Associated with Decommissioning Nuclear Facilities."
- NUREG/CR-3293, "Technology, Safety and Costs of Decommissioning a Reference Nuclear Fuel Cycle and Non-Fuel Cycle Facilities Following Postulated Accidents."
- Management Directive 8.12 "Decommissioning Financial Assurance Instrument Security Program" (revised 10/1/96)

APPENDIX Q

Important Concepts for Reviewing Final Radiation Survey Plans

IMPORTANT CONCEPTS FOR REVIEWING FINAL RADIATION SURVEY PLANS

NUREG/CR-5849 was developed in 1992 as guidance for NRC staff and others for conducting radiological surveys during decommissioning. The purpose of the NUREG is to describe the procedures for designing and conducting surveys to demonstrate the residual radioactive material at a facility meets NRC's criteria for release of the facility and termination of the facility license. Licensees may use the procedures discussed in the NUREG or develop alternative procedures to demonstrate that their facility is suitable for release. However, any alternative procedures will require review and approval by the NRC staff prior to submission of the survey data. NRC staff in conjunction with other Federal agencies is developing a comprehensive manual for conducting final status surveys. Until this manual is finalized, NRC staff should review final status survey plans with the concepts discussed below in mind as they are applicable to final status surveys plans for all facilities.

- 1) **Affected and Unaffected areas** - Delineation of the facility into affected and unaffected areas during the radiological characterization of the facility is critical as it establishes the rate and type of survey activities that will occur at the facility during the final status survey. The procedures for establishing affected and unaffected areas at licensed facilities are discussed in detail in NUREG/CR-5849. Re-classification of areas based on unexpected radiological conditions should be discussed. In particular, if an unaffected area is found to contain residual radioactivity in excess of a percentage (usually 25%) of the NRC's criteria for release of the facility, the unaffected area must be reclassified as and reevaluated as an affected area. In most cases this will require additional sampling.
- 2) **Release Criteria** - The residual radioactive contamination levels must be clearly presented in the plan for all affected media. The units of radioactivity, action levels and any other limiting information should be clearly summarized and be consistent with NRC guidance and regulations. In addition, the criteria for assessing hot spots should be presented. Current criteria for release of facilities are summarized in Appendix 1 of this Handbook.
- 3) **Background Determination** - The manner in which background is determined should be consistent with NUREG/CR-5849, Section 8. This includes the actual measurement of off-site radiation levels and the number of data points need to determine background. Care should be taken to ensure that the potential for variations in background values are acknowledged and addressed in the plan.
- 4) Care should be taken to ensure that the data presented will allow the data reduction required to evaluate the radiological status of the site (i.e. "<bkg" or "ID" is unacceptable). In addition, the approach for calculating critical levels and averaging should be consistent with NUREG/CR-5849.
- 5) **Survey Instruments** - Survey instruments should be appropriate for the radiations present and be capable of detecting less than 25% of the guideline values. Instrument calibration

procedures should be appropriate for the radionuclides of interest and be clearly summarized. Data conversions for instrument efficiency, probe surface area, etc. and adjustment for background levels should be discussed. In addition, it is critical that the Minimum Detectable Activity be established for each instrument as discussed in NUREG/CR-5849.

- 6) Re-remediation/Re-survey - The plan should clearly discuss how this will be accomplished. It is critical that the licensee not use the final survey as a method to locate additional areas for remediation. Areas requiring remediation should be remediated PRIOR to the final status survey. Management of small areas exhibiting elevated radiation levels (hot spots) are discussed in NUREG/CR-5849.

The licensee should present the final survey data as developed, including areas that are found to be contaminated above the release criteria. The licensee should not remediate the areas and present the data only when it indicates that the facility meets the release criteria. The amount and location of contamination provides valuable information about the site that can be used by the licensee and NRC staff to determine if additional contamination may be in areas not considered during the development of the final status survey plan. For example, if a large volume of contaminated soil is located along the facility fence line it may indicate that off-site contamination is present.

- 7) Report Format - The report format should be consistent with NUREG/CR-5849, as appropriate. In addition, although all the final status survey data developed should be provided to NRC, summary tables should be used to reduce the amount of data that will require review by the staff. If possible electronic versions of the data should be provided for large data sets. The report should also contain examples of all data collection, value conversion and instrument field data sheets.

- 8) Survey procedures - Establishment and use of survey grids, and sample collection, including the type and frequency of collection should be consistent with NUREG/CR-5849.

- 9) Scanning vs fixed and removable contamination - scanning is the best method to determine the radiological status of a facility. Evaluations for fixed and removable contamination are important, but do not guarantee that residual radioactive material in excess of release criteria will be located. Therefore, it is critical that affected areas receive 100% scanning with a survey instrument capable of detecting less than 25% of the release criteria. In addition, it is important to ensure that the technician performing the scanning is properly trained and is aware of the importance of adhering to the scanning procedure. Finally, the limitations of the survey instrument that will be used to perform the scans must be considered in developing the plan.

APPENDIX R

Contractor Technical Assistance Request Forms

REQUEST FOR TECHNICAL ASSISTANCE (RFTA)

INSPECTOR'S NAME _____ TELEPHONE # _____

FACILITY NAME AND LOCATION _____

DOCKET _____ DATE OF REQUEST _____ RFTA # _____
(LEAVE BLANK)

FEE OR NON-FEE RECOVERABLE _____

PROVIDE APPLICATION DATE (FROM LICENSEE) _____

PLEASE CHECK NEW LICENSE ___ AMENDMENT ___ RENEWAL ___

DESCRIPTION OF WORK TO BE PERFORMED (INCLUDING SCHEDULE) (USE SEPARATE SHEET IF NEEDED)

FOR CONFIRMATORY SURVEY REQUESTS, PLEASE ANSWER THE FOLLOWING:

- 1. HAS PRELIMINARY INFORMATION BEEN RECEIVED FROM LICENSEE? YES ___ NO ___
- 1A. HAS THIS INFORMATION BEEN REVIEWED BY NRC AND IS IT ACCEPTABLE? YES ___ NO ___

(NOTE: ORAU SHOULD BE PROVIDED 30 CALENDAR DAYS TO REVIEW INFORMATION AND PREPARE FOR SURVEY).

- 2. IS A PRELIMINARY SITE VISIT NEEDED? _____ WHEN? _____
- 3. DATE SURVEY PLAN NEEDED _____
- 4. DATE SURVEY NEEDED _____

AUTHORIZATION

INSPECTOR _____ DATE _____ BRANCH CHIEF _____ DATE _____

EMERGENCY AUTHORIZATION (SEE INSPECTION CHAPTER 0312 FOR DEFINITION OF ACCEPTABLE EMERGENCY REQUESTS). EXPLAIN, ON SEPARATE SHEET, THE JUSTIFICATION FOR THE EMERGENCY REQUEST. *NOTE THAT THE REQUEST CANNOT BE PROCESSED WITHOUT THIS JUSTIFICATION.

DIVISION _____ DATE _____

APPROVAL

HQ YAPH _____ DATE _____ HQ TH _____ DATE _____

MODIFICATION TO REQUEST FOR TECHNICAL ASSISTANCE (RFTAMOD)

INSPECTOR'S NAME _____ REGION _____ DATE _____

FACILITY NAME AND LOCATION _____

RFTA MODIFIED (NUMBER, LEAVE BLANK) _____

DESCRIPTION OF MODIFICATION:

JUSTIFICATION FOR MODIFICATION:

DISCUSSION OF COST IMPACT OF MODIFICATION:

AUTHORIZATION

INSPECTOR _____ DATE _____

BRANCH CHIEF _____ DATE _____

APPROVAL

HQ TAPM _____ DATE _____

HQ TM _____ DATE _____

ORAU CONFIRMATORY RADIOLOGICAL SURVEY PLAN APPROVAL FORM (SPAF)

1. PLEASE ANSWER THE FOLLOWING QUESTIONS. IF THERE ARE ANY PROBLEMS OR CONCERNS ABOUT THE SURVEY PLAN, PLEASE STATE THEM IN THE AREA DESIGNATED.

NAME/LOCATION OF SITE TO BE SURVEYED _____ SURVEY _____
INSPECTOR _____ REGION _____ DATE(S) _____

- | | YES | NO* |
|--|-----|-----|
| A) IS THE SCOPE OF THE PROPOSED SURVEY AS PRESENTED IN THE SURVEY PLAN, REASONABLE AND ADEQUATE? | ___ | ___ |
| B) IS THE SAMPLING PROPOSED BY ORAU REASONABLE AND NECESSARY FOR PERFORMANCE OF THE SURVEY? | ___ | ___ |
| C) IS THE AMOUNT OF TIME NEEDED TO PERFORM, AS STATED IN THE SURVEY PLAN REASONABLE? | ___ | ___ |
| D) IS THE COST ESTIMATE PROVIDED TO PERFORM THE SURVEY REASONABLE? | ___ | ___ |
| E) IS THE PROPOSED TIMING OF THE SURVEY SATISFACTORY? | ___ | ___ |

2. *PLEASE EXPLAIN THE ANSWERS THAT ARE MARKED "NO" IN SECTION 1. USE SEPARATE SHEET IF NECESSARY.

3. I CERTIFY THAT I HAVE REVIEWED THE SURVEY PLAN SUBMITTED BY ORAU AND THAT THE PLAN IS (CIRCLE ONE):

- A. ACCEPTABLE AS SUBMITTED.
- B. ACCEPTABLE WITH MODIFICATIONS STATED ABOVE.
- C. NOT ACCEPTABLE (ORAU MUST RESUBMIT FOR APPROVAL).

INSPECTOR _____ DATE _____

SUPERVISOR _____ DATE _____

4. HEADQUARTERS APPROVAL

TAPH _____ DATE _____ TH _____ DATE _____

BIBLIOGRAPHIC DATA SHEET

(See instructions on the reverse)

1. REPORT NUMBER
(Assigned by NRC, Add Vol., Supp., Rev.,
and Addendum Numbers, if any.)

NUREG/BR-0241

2. TITLE AND SUBTITLE

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3. DATE REPORT PUBLISHED

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March	1997

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5. AUTHOR(S)

D.A. Orlando, R. C. Hogg, K. M. Ramsey, P. W. Harris, L. H. Thonus, R. R. Bellamy,
M. C. Roberts, J. L. Henson, J. W. McCormick-Barger, D. B. Spitzberg, T. J. Obrien

6. TYPE OF REPORT

7. PERIOD COVERED (Inclusive Dates)

8. PERFORMING ORGANIZATION - NAME AND ADDRESS (If NRC, provide Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address; if contractor, provide name and mailing address.)

Division of Waste Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

9. SPONSORING ORGANIZATION - NAME AND ADDRESS (If NRC, type "Same as above"; if contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.)

Same as 8. above

10. SUPPLEMENTARY NOTES

11. ABSTRACT (200 words or less)

Reviews of the Site Decommissioning Management Plan (SDMP) program by the U.S. General Accounting Office and the NRC Office of the Inspector General in 1994 and 1995, as well as continuing NRC management reviews, found that while the NRC staff was overseeing the decommissioning program at nuclear facilities in a manner that was protective of public health and safety, progress in decommissioning many sites was slow. As a result of these reviews, NRC determined that formal written procedures should be developed to facilitate the timely decommissioning of licensed nuclear facilities in a manner that was consistent throughout the NRC as well as in accordance with all applicable regulatory requirements. This handbook was developed to aid NRC staff overseeing the decommissioning program at licensed fuel cycle and materials sites; formerly licensed sites for which the licenses were previously terminated; sites involving source, special nuclear or byproduct material subject to NRC regulation for which a license was never issued; and sites in the NRC's SDMP program in achieving this goal. It is intended to be used as a reference document to, and in conjunction with, NRC Inspection Manual Chapter (IMC) 2602 "Decommissioning Inspection Program for Fuel Cycle and Materials Licensees."

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

Decommission, Decommissioning, Decommissioning Plan, License Termination

13. AVAILABILITY STATEMENT

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