

October 4, 2002

MEMORANDUM TO: Those on the Attached List

FROM: Martin J. Virgilio, Director  
Office of Nuclear Material Safety and Safeguards **/RA/**

SUBJECT: NMSS POLICY AND PROCEDURES LETTER 1-77, "REACTOR  
DECOMMISSIONING PROGRAM PROCEDURES FOR INTERFACING  
WITH NRR"

Policy and Procedures Letter 1-77, Revision 0 (attached) provides the Office of Nuclear Material Safety and Safeguards (NMSS) with procedures for interfacing with the Office of Nuclear Reactor Regulation (NRR) on matters related to the reactor decommissioning program.

All addressees should review the attached procedure to familiarize themselves with the procedures and disseminate the information to staff, as appropriate. The procedure is effective October 1, 2002, and will remain in effect until further notice.

Attachment: NMSS Policy and Procedures Letter 1-77, Revision 0

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REACTOR DECOMMISSIONING PROGRAM  
PROCEDURES FOR INTERFACING WITH NRR

PURPOSE

This Policy and Procedures Letter (P&PL) establishes procedures defining the interactions, licensing program management responsibilities, and support functions for the decommissioning of nuclear reactors, spent fuel storage at decommissioning power reactor facilities, radiological transportation issues, and partial site release requests. This P&PL supersedes the Memorandum of Understanding (MOU) between the Office of Nuclear Reactor Regulation (NRR) and the Office of Nuclear Material Safety and Safeguards (NMSS), dated March 15, 1995.

OBJECTIVES

The overall objective of this P&PL is to enhance staff regulatory oversight of decommissioning commercial power plants as they transition from reactor operation to decommissioning.

To accomplish the overall objective, this P&PL defines the interactions, licensing program management responsibilities, and support functions for staff regulatory oversight of decommissioning commercial nuclear power reactors, spent fuel storage at decommissioning power reactor facilities, radiological transportation issues, and partial site release issues. Areas of mutual support and guidance for coordination of technical reviews, rulemaking, and guidance are described. Communication and coordination elements are described in this procedure and based on the MOU, suspended on October 1, 2002.

This P&PL is aligned with NRR Office Instruction COM-101, to provide assurance that the transfer of project management responsibility from NRR to NMSS for decommissioning commercial nuclear power plants occurs efficiently and effectively without unnecessary burden on the licensee. This procedure and COM-101 require inter-office concurrence for changes affecting the respective offices.

To aid in the effective project management of decommissioning power reactors, the following appendices are provided:

- Appendix A, "Transferring a Commercial Power Plant from NRR to NMSS," contains the process and approach by which commercial power plants will be transferred to NMSS after regulatory and safety milestones are completed. On page A-2 of this appendix is a "road map," which pictorially represents the transfer process.
- Appendix B is a checklist of NMSS staff activities before transfer of a power plant from NRR.

## BACKGROUND

NRR and NMSS reviewed decommissioning program responsibilities, as reflected in SECY-88-355, "Transfer of Regulatory Responsibility for Power Reactor Decommissioning from NRR to NMSS" (abbreviated title), dated December 28, 1988. The review included evaluation of the respective capabilities of both NRR and NMSS, and the opportunities to use the strengths of each organization effectively and efficiently. As a result, the MOU was developed and issued on March 15, 1995, to define staff responsibilities and coordination and communication elements during the various phases of the decommissioning process, including interactions, licensing program management responsibilities, and support functions. The MOU was also responsive to the requirements of the proposed rule for decommissioning of nuclear power reactors (subsequently published as a Final Rulemaking on July 29, 1996, "Decommissioning of Nuclear Power Reactors," 61 FR 39278).

Since the implementation of the MOU, several organization and regulatory changes have occurred, warranting suspension of the MOU and development of changes to realign NRR and NMSS office coordination and communication protocols and regulatory oversight responsibilities. Some of these changes were:

- On April 18, 1995, Spent Fuel Project Office (SFPO) was established, resulting in changes in program responsibilities.
- On July 29, 1996, NRC published the final rule on decommissioning procedures for nuclear power reactors, as 10 CFR Part 50.82.
- On July 21, 1997, NRC published the "Final Rule on Radiological Criteria for License Termination," as Subpart E to 10 CFR Part 20.
- On April 11, 2002, the Office of Nuclear Security and Incident Response (NSIR) was established.
- November 8, 2002, SECY 02-0198 described realignment of the staff project management of decommissioning commercial nuclear power plants.

This P&PL is aligned to NRR Office Instruction COM-101, to provide assurance that staff regulatory oversight of commercial power plant decommissioning: Independent Spent Fuel Installation (ISFSIs); and low- and high-level radioactive waste issues, are effectively and efficiently coordinated without unnecessary burden on stakeholders.

The goals of this P&PL are to:

- Clearly separate reactor operation from reactor decommissioning. This will reduce the number of organizational layers responsible for decommissioning.
- Provide NMSS expertise and experience earlier in decommissioning. This will improve timely communication of site survey techniques and evaluation, ground-water investigation, and other license termination efforts.

- Base the NRR- to- NMSS plant transfer on safety and regulatory milestones. These milestones provide a well-qualified, technically sound process by which to transfer a power plant to NMSS. In essence, upon completion of the milestones, the facility is more representative of a materials licensee temporarily storing and processing radioactive waste, than a commercial power reactor facility licensed to operate. See Appendix B for additional details and guidance.

## MANAGEMENT OF THE DECOMMISSIONING POWER REACTORS

The overall objective of this P&PL and COM 101 is to enhance regulatory oversight of decommissioning commercial power reactors as they transition from reactor operation to decommissioning. This is accomplished by best using the experience and expertise of the NMSS and NRR staffs and by defining specific areas of mutual support, coordination, and communication. This P&PL also provides guidance on staff coordination with Nuclear Security and Incident Response (NSIR) for security, national emergencies, and incident response. The staff responsibilities described herein are consistent with roles and responsibilities defined in the Code of Federal Regulations, 10 CFR 1.42 and 1.43, and the Energy Reorganization Act of 1974.

### 1. Rulemaking

NRR has lead responsibility to manage and process all rulemaking associated with 10 CFR Parts 50 and 55 for operating commercial power plants. NRR will obtain NMSS concurrence on rulemaking affecting decommissioning power plants.

Unless otherwise stated or agreed, NMSS has lead responsibility to manage, and process all rulemaking associated with 10 CFR 50.82 and any regulatory activity that establishes or sets decommissioning policy, including rulemaking and guidance development. NMSS will obtain NRR concurrence for actions that affect or potentially affect: post-reactor shutdown transitional activities<sup>1</sup>; rulemaking; operating reactor requirements and guidance; and wet spent fuel storage, handling, and maintenance.

### 2. Project Management

NRR will maintain regulatory project management, oversight, and inspection support responsibilities, except as detailed in the following paragraphs, until the completion of the “Regulatory and Safety Milestones” identified in Appendix A, Table 1, and pictorially represented on page A-2. After completion of the milestones and the associated considerations, the shut-down commercial power plant may then be transferred to NMSS, using the checklist in Appendix B.

NRR shall process and complete the licensee’s post-shutdown amendment of its Technical Specifications to reflect the permanent shut-down and defueled status of the reactor plant.

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<sup>1</sup>Generally speaking, “post-shutdown transitional activities” includes all regulatory and licensee actions that occur before the transfer of a facility to NMSS, using the guidance in Appendix A of this office instruction.

NRR shall process all other licensee submittals before and after the permanent cessation of power operation. If possible, these submittals should be completed before the facility is transferred to NMSS. Specific submittals are discussed below.

NMSS will lead and process all actions/determinations of what constitutes a legitimate decommissioning activity (for decommissioning fund expenditure purposes, etc.), major decommissioning activity, and major radioactive component (10 CFR 50.2).

For commercial power reactor facilities that elect to restart after completion of the Regulatory and Safety Milestones, NRR shall maintain regulatory oversight of the facility. If the unit has already been transferred to NMSS, NMSS will transfer Project Management responsibility of the facility back to NRR at the earliest possible time.

NSIR will provide technical support for licensing activities implemented by NMSS in the safeguards or security arena.

### 3. Inspection

NRR will be the agency lead for the Reactor Oversight Program and have overall management of the NRC Inspection Manual Chapter (IMC) and inspection procedure process.

NMSS will have technical lead for IMC 2561, "Decommissioning Power Reactor Inspection Program," as revised, and its associated inspection procedures. NMSS will coordinate with NRR on inspection program changes that affect inspection of post-shutdown activities.

NMSS will have technical lead for IMC 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area."

SFPO will have the technical lead for IMC 2690, "Inspection Program for Dry Storage of Spent Fuel at Independent Spent Fuel Storage Installations."

Inspectors or Resident Inspectors who are assigned to a permanently shut-down and defueled commercial power plant will conduct inspections in accordance with the guidance in IMCs 2561 and 2690, if applicable. IMC 2561 provides guidance on how long a Resident Inspector and office staff should be assigned to a permanently shut-down plant. It also provides guidance on whether IMC 2561 or 2515, "Light-Water Reactor Inspection Program - Operations Phase," is applicable.

For assigned decommissioning units, NRR will fund regional inspection, pursuant to IMC 2561, through the fiscal year in which the unit is transferred to NMSS. NMSS will fund all subsequent years and all license termination activities.

For operating reactors and all decommissioning units that have an ISFSI, NRR will have cognizance over and will fund regional inspection for ISFSI-related spent fuel pool (SFP) operations, spent fuel transfer cask loading, and onsite transfer of spent fuel. This funding includes dry runs, walk-throughs, and actual transfer activities. Additional

information regarding ISFSI inspection resource allocation is provided in the NRR/NMSS agreement dated February 20, 2002.<sup>2</sup>

SFPO will fund inspection of all 10 CFR Part 72 activities involving ISFSI design, construction, operation, maintenance, and design changes; this includes ISFSI storage pad fabrication, onsite cask component, and ancillary equipment fabrication. SFPO will also fund license termination and decommissioning of ISFSI licenses for whom SFPO has project management responsibilities.

For intra-SFP transfer of spent fuel involving an operating nuclear power plant, NRR will fund regional inspection of spent fuel pool operations, spent fuel transfer cask loading and unloading, and on-site and off-site transfer of spent fuel. NMSS will fund this activity if the transfer occurs between units that have NMSS/Division of Waste Management (DWM) project management oversight.

Additional guidance on inspection oversight and resource estimates are provided in NRC IMCs 2561 and 2690.

For "Partial Site Releases," Section 9, either NRR or NMSS will fund regional inspection of partial site releases for their respective facilities.

NSIR will develop and provide oversight of safeguards and security inspection programs.

#### 4. Safeguards

For multi-unit sites that have decommissioning and operating units, NRR shall have project management lead on all site-specific associated actions and will obtain NMSS concurrence for the NMSS-assigned decommissioning unit. See below, "Operator Licensing and Training," for guidance on 10 CFR 50.54(x).

For operating reactors sites, with an ISFSI, NRR will coordinate security, safeguards, and physical protection issues and activities with NSIR, SFPO, and NMSS/DWM, as required, to ensure consistency of regulatory application. For an away from reactor ISFSI, SFPO will provide this coordination.

For assigned plants, NRR and NMSS will coordinate in the other's licensing actions on all changes to physical security plans, training, and Fitness-for-Duty requirements that reduce, modify, or potentially change safeguards requirements from that associated with an operating commercial nuclear power plant for NRR and a decommissioning power plant for NMSS. The applicable regulations include 10 CFR 50.54(p) and (v), Part 72, Subpart H, and 10 CFR 73.55. These activities will be coordinated with NSIR as required.

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<sup>2</sup>Memorandum to the Deputy Regional Administrators from B. Boger and E. Brach, Response to Regional Input on ISFSI Resources, dated February 20, 2002.



5. Emergency Preparedness

NRR will be the lead to process and review all exemptions and Emergency Plan changes, that are conducted pursuant to 10 CFR 50.47, 50.54(q), (s), and (t), and Appendix E to Part 50, which reduce, modify, or potentially change emergency preparedness (EP) requirements as the plant transitions from operating to permanently shut-down status. For facilities that have submitted EP changes or exemptions to reflect a permanently shut-down and defueled condition and have met the Defueled Technical Specification and Licensed Operator milestones that would otherwise allow them to be transferred to NMSS, NRR will finish processing the EP licensing action prior to transferring of the facility to NMSS. For these facilities, NRR will obtain NMSS concurrence. NRR will coordinate with SFPO on actions involving 10 CFR 72.32.

For those facilities that have transferred to NMSS, but still have fuel in the SFP, NMSS will obtain NRR concurrence<sup>3</sup> on any changes that are conducted pursuant to 10 CFR 50.47, 50.54(q), (s), and (t); and Appendix E to Part 50, which reduce, modify, or potentially change EP requirements.

For those facilities that have transferred to NMSS, but share a common EP plan with an operating unit, NRR will continue to have lead responsibility to process and review EP changes and will obtain NMSS concurrence on any changes that are conducted pursuant to 10 CFR 50.47; 10 CFR 50.54(q), (s), and (t); and Appendix E to 10 CFR Part 50 which reduce, modify or potentially change EP requirements.

After transfer of a decommissioning facility to NMSS, and after all reactor fuel has been safely removed from the SFP, NMSS will assume all regulatory Project Management, oversight, inspection, and technical review of all EP for the assigned facility.

NMSS will have the lead for all rulemaking and guidance development for EP at decommissioning commercial power plants. NRR will concur in any EP rulemaking and guidance that affects power plants licensed or authorized to operate.

6. Operator Licensing and Training

NRR will have the lead for all rulemaking, guidance, exemptions, amendment, and program changes conducted pursuant to 10 CFR 50.54(i) - (m), (x), and (y); 10 CFR 50.74, 50.120, and the portion of Part 55 associated with licensed operators, non-licensed operators, and certified fuel handlers. NRR will coordinate with SFPO on action involving Part 72, Subpart I. If the staff/regulatory action is specifically applicable to decommissioning, NMSS shall have the lead and NRR will provide support, as requested.

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<sup>3</sup> For multi-unit sites, NMSS will seek concurrence from the NRR project manager assigned to the operating unit at the site. For stand-alone units, NMSS will seek concurrence from the chief of the cognizant NRR technical branch.

NMSS shall obtain NRR concurrence on any exemption, licensing actions, or plan change that may affect licensed operators or nuclear power plant personnel, pursuant to 10 CFR 50.120.

## 7. Technical Support

NRR will provide technical support, as requested by NMSS and/or SFPO, for heavy loads, and structural and seismic issues associated with both the reactor facility and the ISFSI.

NRR will take lead responsibility for all amendment of, and changes to, fire protection requirements involving 10 CFR 50.47 and Appendix R. For decommissioning units assigned to NMSS, NMSS will lead and NRR will concur in NMSS proposed actions for wet spent fuel storage, safety-related structures, systems and components (SSCs) and changes in fire protection at co-located facilities.

NRR will take lead responsibility for all amendment of and changes to quality assurance plans and programs involving 10 CFR 50.54(a) and Appendix B. For decommissioning units assigned to NMSS, NMSS will lead and NRR shall concur in NMSS proposed actions that reduce requirements for safety-related SSCs and those associated with wet spent fuel storage, environmental monitoring, and for all co-located/shared quality assurance (QA) plans.

NRR will take lead responsibility for all amendment of and changes to the Maintenance Rule, 10 CFR 50.65. For decommissioning units assigned to NMSS, NRR shall concur in NMSS-proposed maintenance rule actions for all wet spent fuel storage, and environmental monitoring and safety-related SSCs at decommissioning units.

SFPO will lead all amendments to Part 72.

The office with project management oversight of a particular facility will assess the Post-Shutdown Decommissioning Activities Report (PSDAR) and will prepare, as necessary, any environmental assessment, if required.

NRR will take lead responsibility for all amendment of and changes to wet spent fuel storage criticality accident requirements at commercial nuclear power plants, pursuant to 10 CFR 50.68. For NMSS-assigned facilities, NRR will concur in NMSS-proposed actions.

NMSS will take lead responsibility for and process all amendments and changes to decommissioning record-keeping, pursuant to 10 CFR 50.75. If the operating or decommissioning facility is assigned to NRR, NRR shall obtain NMSS concurrence. See paragraphs 9, "License Termination Plan," and 11, "Financial Reviews," for additional guidance.

NMSS will take lead responsibility for and process all amendments and changes to decommissioning regulations, pursuant to 10 CFR 50.82. If the operating or decommissioning facility is assigned to NRR, NRR shall obtain NMSS concurrence.

See paragraphs 9, "License Termination Plan," and 11, "Financial Reviews," for additional guidance.

8. ISFSI Activities

See Section 2, "Inspection," for additional guidance.

SFPO will lead and provide project management of ISFSI casks, facilities, and their construction, vendors, and respective inspections. SFPO will manage and process all topical reports and generic design approvals related to dry fuel handling facilities.

NRR or NMSS/DWM, for their respective assigned facilities, will keep SFPO informed of any licensing matters, visits, or inspections affecting or potentially affecting Part 72 activities and will coordinate with the NMSS/SFPO project manager before the issuance of correspondence regarding issues and inspection findings matters affecting or potentially affecting SFPO activities.

SFPO will lead and provide project management for issuing the certificate of compliance, associated rulemaking, and inspections of cask design and fabrication controls.

9. Partial Site Release

See Section 2, "Inspection," for additional guidance.

NRC Regulatory Issue Summary 2000-19, "Partial Release of Reactor Site for Unrestricted Use Before NRC Approval of the License Termination Plan" discusses the NRC staff's plans for handling requests for partial site releases until rulemaking is finalized.

For NRR-assigned facilities, the NRR project manager will conduct an acceptance review of the application. After completing the acceptance review, NRR will request that NMSS conduct a detailed technical review of the application. The NRR project manager will coordinate with NMSS, the respective Region, and the licensees to conduct the public meeting associated with the partial site release.

NMSS shall review and concur in all Partial Site Releases and process those requests for its assigned facilities.

For NMSS-assigned facilities, the NMSS project manager will conduct an acceptance review of the application. After completing the acceptance review, NMSS will conduct a detailed technical review of the application. The project manager will coordinate with the respective Region and the licensee, to conduct the public meeting associated with the partial site release.

For decommissioning units assigned to NMSS that are co-located with operating power reactor(s) or permanently shut-down plants under NRR project management, NRR shall concur in all Partial Site Release decisions.

10. License Termination Plan

NMSS will review the license termination plan (LTP) and prepare the safety evaluation report, the environmental assessment, and the license termination order or amendment. NMSS will be responsible for all radiological surveys, confirmatory surveys, site characterization, and license termination activities, including assurance that appropriate site release criteria are met.

NMSS will conduct the public meetings, associated hearings, and the other internal and external public outreach activities.

NMSS is responsible for reviewing any cost estimates and financial or funding assurance plans that licensees submit with the LTP.

11. Other Radiological Issues

NRR will take lead responsibility for, and process all exemptions, amendments, and changes to licensee plans and programs associated with radiological effluents and environmental monitoring for operating and decommissioning commercial power plants co-located with an operating unit. NMSS shall process all actions for assigned units and obtain NRR concurrence for NMSS-proposed actions.

SFPO will provide technical support as requested by NRR for ISFSIs and reactor vessel packaging, transportation, and disposal.

NMSS will provide technical support as requested by NRR for low- and high-level radioactive waste issues; greater-than Class C waste issues; and other activities within the Nuclear Waste Safety strategic arena.

12. Financial Reviews

The office with project management responsibility is responsible for reviewing any cost estimates and financial or funding assurance plans submitted by licensees associated with the PSDAR or pursuant to 10 CFR 50.54(bb), regarding financial assurance for interim storage of spent fuel. NRR shall inform NMSS if deficiencies are identified.

NRR is responsible for evaluating all antitrust law [10 CFR 50.54(g)] and insurance or indemnity issues [10 CFR 50.54(w)] until termination of the Part 50 license, even at those sites where project management has been transferred to NMSS. NRR shall inform NMSS if deficiencies are identified.

NRR shall inform NMSS of bankruptcy pursuant to 10 CFR 50.54(cc) for NRR-assigned operating and decommissioning units. NMSS shall lead and process the resolution of bankruptcy associated regulatory actions for any bankrupt unit that permanently ceases power operation.

NMSS will process and review all LTP cost estimate submittals. If the LTP is submitted while NRR has project management of the facility, and NMSS finds the funding estimate inadequate, NMSS will take appropriate action and inform NRR.

### 13. External Interfaces

NMSS and NRR will support the other office, as requested.

NRR has a supporting role to NSIR; however, NRR is the primary technical contact for the public and media for all reactor-related or facility-related accidents, events, and abnormal occurrences that occur at commercial power plants, or a multi-unit site that has a mix of operating and decommissioning nuclear power plants.

NMSS has a supporting role to NSIR; however, NMSS is the primary technical contact for the public and media for all facility-related accidents, events, and abnormal occurrences that are confirmed to be isolated or confined to the decommissioning unit(s) at a multi-unit site that has a mix of operating and decommissioning nuclear power plants. SFPO is responsible for these activities as they apply to ISFSIs.

NRR will have the lead for all stakeholder activities for reactor operation, the reactor operation-to-decommissioning transition, and permanent shut-down. For issues involving wet fuel handling, storage, and maintenance, NMSS will coordinate with NRR for generic consideration of the issue at operating and assigned decommissioning nuclear power plants.

NRR, NMSS, and SFPO will coordinate onsite visits and inspections through the cognizant project manager.

NMSS/DWM or SFPO, as designated, will conduct and have the lead for all stakeholder activities for Nuclear Waste Safety strategic arena activities including the conduct of meetings for license termination, ISFSIs, and reactor vessel transportation, packaging, and disposal.

SFPO will conduct and have the lead for all stakeholder activities for ISFSI fuel handling from loading of the transfer cask, to placement on the pad, and removal. NRR will provide support in these areas, as requested by NMSS.

### MANAGEMENT OF RESEARCH AND TEST REACTORS

NRR will perform all project management activities associated with research and test reactors. NMSS will support NRR, as requested, in the review of either research and test reactor Decommissioning Plans (DPs) and support hearings and public meetings associated with the DPs.

### RESPONSIBILITIES AND AUTHORITIES

#### NRR Project Managers - General Considerations

1. Keep informed of dry storage issues at their respective plants and periodically compare information with the SFPO project managers with regard to spent fuel storage status. For those facilities that do not have ISFSIs, keep informed of the spent fuel storage status (such as SFP capacity/current loads and the projected loss of full core offload capabilities) at their respective plants and the intentions of the licensees to address

future storage requirements (such as re-racking the SFPs or applying for general or site-specific ISFSI licenses), including the projected schedules. This information is periodically reviewed by NRC senior management and SFPO for the development of budget and operating plans.

2. The NRR project manager should keep the NMSS counterpart informed of:  
(1) licensee and license actions that may significantly change decommissioning costs or schedule; (2) requests for technical support; (3) concurrence items; (4) issues involving license termination; (5) ISFSI activities; and (6) public meetings.
3. Maintain a working knowledge of current policies and agreements on the division of responsibilities related to ISFSIs and spent fuel.
4. Ensure that effective communications occur among Headquarters, Region, and licensee organizations until project management responsibilities are transferred to NMSS. Attend and contribute to periodic interface meetings among Headquarters and Regional organizations.
5. Distribute documents of mutual interest related to the reactor (e.g., inspection reports and safety evaluations, as well as documents received from outside NRC) to NRR, NMSS, and the Regions.
6. Coordinate all public communications and site visits until project management responsibilities are transferred to NMSS.
7. Provide input on the NMSS master schedule of planned ISFSIs at reactor sites to the COM-101 primary contacts and provide updates, as necessary.
8. For a site-specific ISFSI license, coordinate, with SFPO, NRR's review of the portions of the licensee's application assigned to NRR, and the associated input to the safety evaluation.
9. For an ISFSI general license, coordinate with SFPO to ensure that the 10 CFR 50.59 evaluation performed by the licensee is reviewed.
10. All NRR requests (either electronic or paper) for review or concurrence by NMSS on NRR products should include at least the following individuals on distribution.

For requests at the NRR Office Director level, include the NMSS Office Director, Deputy Director, and applicable Division Director.

For requests at the NRR Division Director level or below, include the appropriate NMSS Division Director, Branch Chief, or Section Chief as appropriate.

#### All NMSS Staff Members

All NMSS staff members should take actions consistent with this office instruction during interactions with NRR. The staff should work closely with NRR counterparts at all levels and maintain frequent informal communications to understand and resolve technical issues and policies at the working level. When schedules have been established with NRR for

developing safety evaluation report inputs, the staff should provide early notification of potential schedule slips to allow management to take appropriate actions to mitigate the effect on overall project schedules. The staff should inform management of office-level programmatic issues that need to be resolved with NRR. The staff should report any problems with, or possible improvements to this P&PL, to the primary contact.

#### NMSS/DWM Project Managers - General Considerations

NMSS's project management responsibilities for a site will transfer from DWM to SFPO, if an ISFSI is present when all decommissioning and final survey activities related to reactor operations are completed and the only remaining operation conducted under the Part 50 license is the operation of the generally licensed Part 72 ISFSI.

#### PERFORMANCE MEASURES

No specific performance measures have been identified for this P&PL. Periodic reviews will be used to assess performance, to identify corrections or improvements for this P&PL.

#### PRIMARY CONTACTS

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#### RESPONSIBLE ORGANIZATION

Office of Nuclear Material Safety and Safeguards/Division of Waste Management/Decommissioning Branch and Office of Nuclear Material Safety and Safeguards/Spent Fuel Project Office/Transportation, Storage Safety, and Inspection section

#### EFFECTIVE DATE

October 1, 2002

## BIBLIOGRAPHY

1. U.S. Nuclear Regulatory Commission, SECY-88-355, "Transfer of Regulatory Responsibility for Power Reactor Decommissioning from the Office of Nuclear Reactor Regulation (NRR) to the Office of Nuclear Material Safety and Safeguards (NMSS)," dated December 28, 1988
2. U.S. Nuclear Regulatory Commission, "Realignment of Reactor Decommissioning Program," Memorandum from W. Russell and R. Bernero to J. Taylor, dated March 15, 1995
3. U.S. Nuclear Regulatory Commission, "Dry Cask Storage Action Plan," Memorandum from C. Paperiello and W. Russell to J. Taylor, dated July 28, 1995
4. U.S. Nuclear Regulatory Commission, "Activities in Support of Independent Spent Fuel Storage Facility Installations (ISFSIs)," Memorandum from R. Zimmerman, A. Thadani, and D. Crutchfield to staff, dated September 1, 1995
5. U.S. Nuclear Regulatory Commission, NRC Administrative Letter 95-04, "NRC Program Office Responsibilities for Decommissioning Activities and Planning for Dry Cask Storage of Spent Fuel," dated November 1, 1995
6. U.S. Nuclear Regulatory Commission, "Final Update for Closure of the Dry Cask Storage Action Plan," Memorandum from P. Ray to E. Adensam, dated July 15, 1998
7. U.S. Nuclear Regulatory Commission, Final Rule, "Decommissioning of Nuclear Power Reactors," dated July 29, 1996 (61 FR 39278).
8. U.S. Nuclear Regulatory Commission NRC Regulatory Issue Summary 2000-19, "Partial Release of Reactor Site for Unrestricted Use Before NRC Approval of the License Termination Plan," dated October 24, 2000.

## APPENDICES

- Appendix A: Transferring a Commercial Power Plant from NRR to NMSS, "The Road Map"
- Appendix B: "NMSS Staff Activities in Preparation to Receive Transfer of a Commercial Power Plant from NRR"



## APPENDIX A

### TRANSFERRING A COMMERCIAL POWER PLANT FROM NRR TO NMSS

#### “THE ROAD MAP”

##### BACKGROUND

Staff regulatory oversight of decommissioning commercial nuclear reactor plants needs to be efficient and effective so as to facilitate effective communications and not result in unnecessary burden on 10 CFR Part 50 licensees. These goals are achieved by: (1) transferring project management responsibility to the Office of Nuclear Material Safety and Safeguards (NMSS) efficiently, effectively, and consistently by implementing the “road map;” (2) better organizing oversight responsibilities by clarifying Nuclear Reactor Regulation (NRR) and NMSS staff activities; and (3) reducing regulatory burden by removing multiple U.S. Nuclear Regulatory Commission (NRC) points of contact and organizational layers for the review and approval of decommissioning actions.

The key stakeholder messages associated with transferring power plants from NRR to NMSS are that it:

- Clearly separates reactor operation from reactor decommissioning. This will reduce the number of organizations responsible for decommissioning.
- Secures NMSS expertise and experience earlier in decommissioning. This will improve timely communication of site survey techniques and evaluation, ground-water investigation, and other license termination efforts. This will also free NRR staff to refocus on reactor operation issues.
- Bases the NRR- to -NMSS plant transfer on safety and regulatory milestones. These milestones provide a well-qualified, technically sound process by which to transfer a power plant to NMSS. In essence, upon completion of the milestones, the facility will more represent a material licensee temporarily storing and processing radioactive waste, than a commercial power reactor facility licensed to operate.

##### THE ROAD MAP

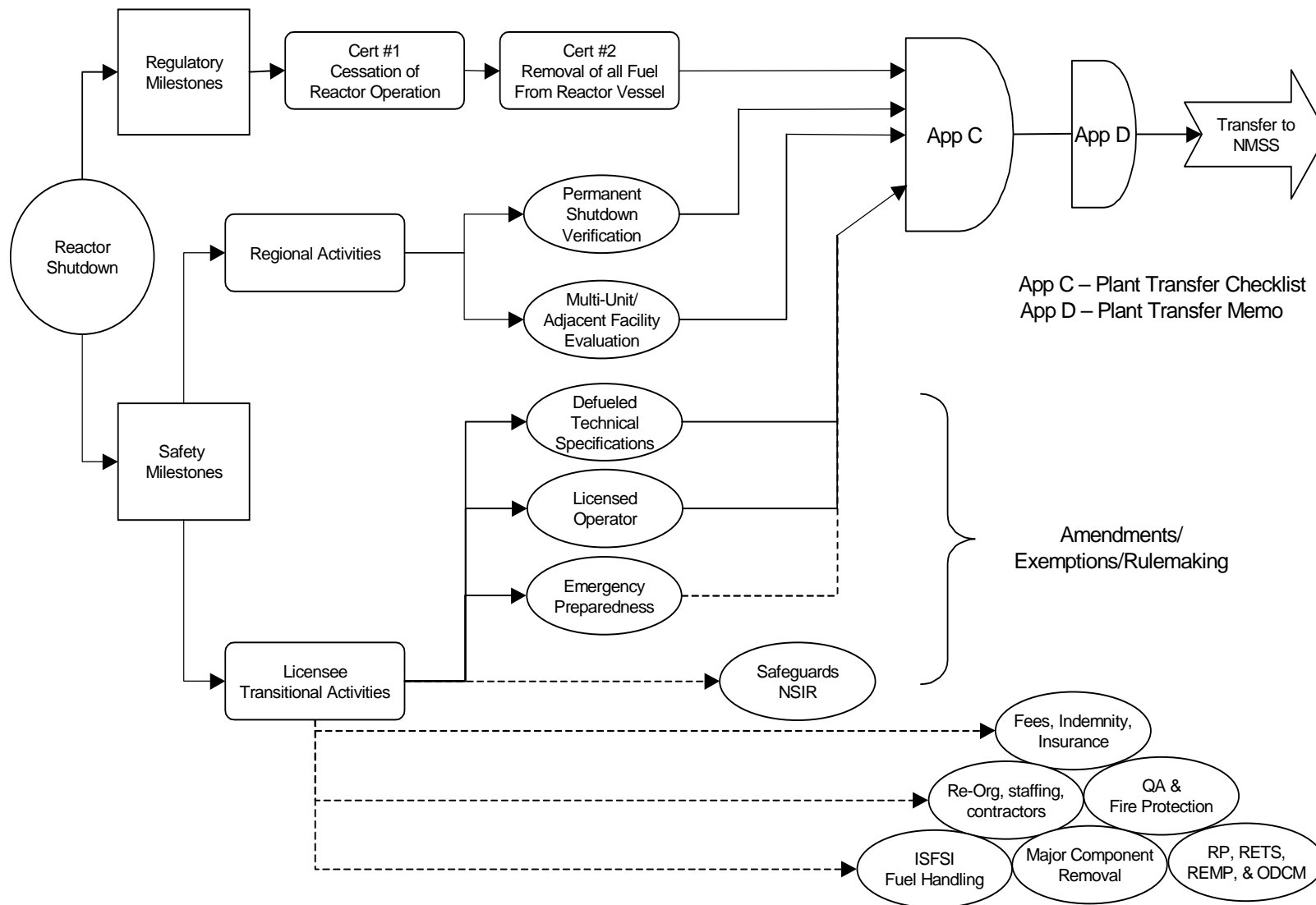
The “road map” as pictorially represented on page A-2 of this appendix, establishes a process that provides high confidence that a decommissioning commercial power plant will be in a safe stable condition before staff project management being transferred from NRR to NMSS. This condition will be characterized by the successful completion of regulatory and safety milestones that provide assurance that the plant and its licensing basis, in effect, more closely represent a materials licensee temporarily storing and processing radioactive waste than a commercial power reactor. The “road map” not only establishes milestones, but it also uses functionally independent organizations to assess their completion (Table 1, page A-2).

A resulting outcome of the “road map” is an assurance that the commercial power plant is in a condition that helps minimize the significance of any regulatory or safety issue that may arise during or after the transfer of the facility to NMSS. It ensures that the plant is safely

# Transfer of Commercial Nuclear Power Plants

## From NRR to NMSS

### “The Road Map”



shut-down and defueled. It also ensures that potential accidents, events, or dismantlement and decontamination activities do not adversely impact co-located facilities and that the facility's licensing basis has been amended to reflect its permanently shut-down and defueled status.

Table 1: Road Map Milestones

<u>Organization</u>	<u>Milestone</u>	<u>Action</u>
NRR	Regulatory	Assessment of reactor shut-down certification Assessment of fuel removal certification
	Safety	Processing of defueled technical specifications (DTS) Processing of licensed operator changes Processing of emergency preparedness exemptions
Region	Regulatory	none
	Safety	Permanent shut-down verification Multi-unit/adjacent facility evaluation
Licensee	Regulatory	Certification of reactor shutdown Certification of permanent fuel removal
	Safety	Submittal of DTS

### THE REGULATORY AND SAFETY MILESTONES

The Regulatory Milestones are the thresholds by which a licensee enters into decommissioning. They provide regulatory assurance that the reactor plant is/will be permanently shut down and that the nuclear fuel has been permanently removed from the reactor vessel. This not only ensures that the facility will not return to power operation, but provides a step reduction in the types and severity of design-basis accidents that can represent radiological conditions adverse to safety. All commercial reactor licensees must submit the certifications of permanent shutdown and fuel removal to begin major decommissioning activities and to use decommissioning fund monies above 23 percent of the generic amount specified in 10 CFR 50.75.<sup>1</sup>

The Safety Milestones are those accomplishments that, in effect, transition an operationally oriented power plant to one more representative of a materials licensee temporarily storing and processing radioactive waste. The establishment of DTS (in other words, the removal of operationally oriented technical specification requirements) is the key element in establishing a safe stable facility, because it results in a license that meets the requirements of 10 CFR

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<sup>1</sup>Licensees must also submit a Post-Shutdown Decommissioning Activities Report. This report/submittal is not a milestone by which the transfer of facilities to NMSS will be based.

50.36 and represents the permanent shutdown and defueled status of the reactor plant. In support of the DTS, the licensing basis as represented, in part, by the site-specific Final Safety Analysis Report (FSAR or equivalent), would have had to have been changed to reflect the changes proposed or implemented.<sup>2</sup>

The Licensed Operator Milestone provides assurance that the licensee staff is trained and qualified to safely operate and maintain the facility in its permanently shut-down and defueled condition. This milestone ensures that the NRR staff reviews the post-shut-down program and licensed operator changes, since they may have a significant potential to impact licensed-operator conditions at operating power plants. Regulations associated with this milestone include 10 CFR 50.55; 50.54(i), (m), (x), and (y), and 10 CFR 50.120 for licensed operators, non-licensed operators, and Certified Fuel Handlers. NRR will support NMSS in its reviews associated with Certified Fuel Handlers when the plant is assigned to NMSS. NMSS will obtain NRR staff technical review and concurrence on any exemption, license action, or plan change associated with Licensed Operators or the training and qualification of nuclear power plant personnel.

The Emergency Preparedness (EP) Milestone provides assurance that post-shut-down changes in onsite and offsite EP proposed by the licensee and submitted before approval of the DTS are evaluated and completed by the NRR staff. This ensures consistency of staff review and provides assurance that post-shut-down EP changes do not have the potential of impacting or setting EP precedence at operating power plants. Regulations associated with this milestone include 10 CFR 50.47; 50.54(q) and (t); and Appendix E to Part 50. Should a permanently shut-down and defueled licensee submit EP changes, after staff approval of the DTS, that reduce, modify, or potentially change EP requirements from those associated with an operating commercial nuclear power plant, NMSS will obtain NRR concurrence.

The Permanent Shutdown Milestone verifies that the licensee safely shut down the reactor and safely and permanently removed all fuel from the reactor vessel. Regional accomplishment of this milestone will be performed by the site-assigned NRC Resident Inspector staff, implementing NRC Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase." Inspector evaluation of safe shutdown and fuel removal will be documented in an NRC inspection report(s) and requires no additional staff effort nor training.

The Multi-Unit/Adjacent Facility Evaluation Milestone verifies that: (1) operational interfaces shared between an operating reactor plant and a decommissioning unit do not represent conditions adverse to safety if severed or changed; and (2) decommissioning activities, accidents, or events do not have significant potential for impacting the safe operation of adjacent facilities. Operational interfaces would include, but are not limited to, structures, systems, and components associated with service water, service or instrument air, electrical power supplies, component cooling water, and ventilation systems. Multi-site use of licensed operators at the decommissioning facility and the site organization are also considerations.

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<sup>2</sup>10 CFR 50.71(e) states, in part, that the FSAR shall be updated periodically to assure that information included in the report includes: (1) the effects of all changes made in the facility or procedures, as described in the FSAR; (2) all safety analyses and evaluations performed by the licensee in support of approved license amendments; or (3) in support of conclusions that changes did not require a license amendment, in accordance with 10 CFR 50.59(c)(2).

Decommissioning activities that may impact the safe operation of adjacent facilities include removal of flammable, toxic, or debilitating gases; changes to electrical supply and distribution and circulating water intake or outfall; accidents or events at the decommissioning unit that may have a credible potential to adversely affect shared spent fuel systems, structures, or containments; or modification of radioactive waste processing, storage, release, or disposal systems. Co-located facilities may include fossil-fueled electrical generating stations, gas pipelines, and other non-radiological facilities that, if impacted, could result in collateral damage at the licensed facility.

The Safeguards Milestone is identified on the “road map” because of its regulatory and safety importance; however, this milestone will not preclude the transfer of a commercial power reactor to NMSS. NRR and NMSS will continue coordinating plant-specific security, safeguards, and fitness-for-duty issues with the Office of Security Incident and Response (NSIR). Applicable Orders, rule changes, guidance, exemptions, and communications originating from NSIR or associated with NSIR will be equally and effectively applied to decommissioning commercial power facilities, whether NRR or NMSS has project management lead.

The other dotted “road map” activities, including fire protection, quality assurance, etc., will not preclude a plant from being transferred to NMSS. However, they will be considered in the transfer process as described in this Office Instruction. For example, if an NRR staff review has begun review of a licensee submittal and the Regulatory and Safety Milestones have been completed, the staff should implement actions in a manner that best uses staff resources. It is expected that NRR will complete the majority of actions submitted before completion of the DTS, even if the plant is transferred mid-review. Once the plant is transferred, NMSS will perform all subsequent reviews and project management for dotted and other activities. Until NMSS gains experience and expertise in the post-shut-down submittals for commercial power plants, NRR will provide technical support, as requested.

The staff notes that the “road map” milestones do not prevent, preclude, or inhibit a permanently shut-down and defueled commercial nuclear power plant licensee from beginning the dismantlement and decontamination of its structures, systems, components, and site, because regulatory review and approval are not required until the License Termination Plan is submitted.<sup>3</sup> The “road map” and its implementing Office Instructions also do not establish nor change regulatory policy on decommissioning. The staff notes that if a licensee elects not to submit and request approval of DTS or licensed operator (LO) changes (i.e., the DTS and LO Milestones), NRR will maintain the facility and coordinate with NMSS as it has done in the past. As such, the milestones do not place burden on licensees, nor represent real or defacto requirements. The Office responsibilities detailed in NRR COM-101 and NMSS P&PL 1-77 are consistent with the descriptions provided in the Energy Reorganization Act of 1974 and 10 CFR 1.42 and 1.43.

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<sup>3</sup>10 CFR 50.82 (a)(9)

## APPENDIX B

### NMSS STAFF ACTIVITIES IN PREPARATION TO RECEIVE TRANSFER OF A COMMERCIAL POWER PLANT FROM NRR

#### “The Checklist”

#### **1. REVIEW THE FOLLOWING DOCUMENTS**

1. License and Technical Specifications
2. Order(s)
3. Final Safety Analysis Report or Defueled Safety Analysis Report
4. Historical License amendment files/notebooks (if applicable)
5. Post Shut-down Decommissioning Activity Reports
6. License Termination Plan (if applicable)
7. Plant Information Book (if applicable)
8. Inspection Reports (if applicable)
9. Latest Commission briefing package (if applicable)

#### **2. ITEMS TO BE DISCUSSED IN NRR/NMSS COUNTERPART BRIEFING**

1. Latest Commission briefing package (if applicable)
2. Significant upcoming meetings (Region, stakeholders, staff)
3. Interveners and stakeholders
4. Periodic status call procedures (Region and Licensee)
5. Document Boilerplate/Distribution lists
6. Current licensing action status
7. Current/pending FOIA requests
8. Current/pending allegations
9. Current/pending Green Ticket correspondence
10. Current/pending Enforcement activities
11. Current status of ISFSI activities and licensing

12. Licensee, Region, and State contacts/phone numbers

**3. DO THE FOLLOWING:**

1. Participate in call with NRR PM to be introduced to licensee.
2. Participate in call with NRR PM to be introduced to Region contacts.
3. Contact Region for access authorization “good guy letter.”
4. Participate in a site visit with NRR PM.
5. Participate in call with NRR PM to be introduced to State contact.
6. Coordinate with NRR PM for G:\drive (boilerplate or master file) transfer.