POLICY ISSUE
(Information)

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FOR: The Commissioners

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SUBJECT: CONSOLIDATION OF U.S. NUCLEAR REGULATORY COMMISSION'S DECOMMISSIONING PROGRAM IN THE DIVISION OF WASTE MANAGEMENT AND ENVIRONMENTAL PROTECTION, OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

PURPOSE:

To inform the Commission of the results of the staff's review of various aspects of the U.S. Nuclear Regulatory Commission's (NRC's) decommissioning program and the staff's actions regarding consolidation of the program in the Division of Waste Management and Environmental Protection (DWMEP), Office of Nuclear Material Safety and Safeguards (NMSS).

SUMMARY:

In response to the November 1, 2005, Staff Requirements Memorandum (SRM) M051018, the staff evaluated if further consolidation of the various aspects of NRC's decommissioning program in NMSS/DWMEP is practical and can result in benefits or gains in efficiency and effectiveness in NRC's decommissioning program or across the Agency. Based on its evaluation, the staff plans to transfer the project management (PM) and oversight responsibility

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for two decommissioning power reactors, two decommissioning early demonstration reactors, and 14 decommissioning research and test reactors (RTRs) from the Office of Nuclear Reactor Regulation (NRR) to NMSS/DWMEP. To accomplish the work in fiscal year (FY) 2007, NRR will transfer one full-time equivalent (FTE) and $200K to NMSS.

BACKGROUND:

NRC regulates the decontamination and decommissioning of materials and fuel cycle facilities, power reactors, RTRs, and uranium recovery facilities, with the ultimate goal of license termination. The functions for project management, technical review, inspection, and support for development of guidance, in support of decommissioning, are spread across several Divisions in three Offices and the Regions: (1) NMSS, in DWMEP and the Division of Fuel Cycle Safety and Safeguards (FCSS); (2) NRR, in the Division of Policy and Rulemaking (DPR); (3) the Office of Nuclear Regulatory Research (RES), in the Division of Fuel, Engineering and Radiological Research; and (4) Regions I, III, and IV.

A summary of the decommissioning program is provided in Enclosure 1.

In November 2002, the staff changed the point at which a permanently shutdown and defueled nuclear power plant would transfer from NRR to NMSS (SECY-02-0198, “Changes in Staff Regulatory Oversight of Decommissioning Commercial Nuclear Power Reactor Plants,” November 8, 2002). Currently, reactor sites transfer to NMSS when the plant is in a safe, stable condition, based on completion of regulatory and safety milestones, and the plant (and its licensing basis) more closely represents a materials site temporarily storing and processing radioactive waste, than a commercial power reactor. A road map (contained in NMSS Policy and Procedures Letter 1-77 and NRR Office Instruction COM-101) is used to determine when a transfer will occur and ensures: (1) the plant is safely shutdown and defueled; (2) potential accidents, events, or site activities do not adversely affect co-located facilities; and (3) the facility's licensing basis has been amended to reflect the permanently shutdown and defueled status of the reactor.

In 2002, the staff informed the Commission that it was transferring PM responsibility for 13 power reactors from NRR to NMSS. At that time, NRR retained PM responsibility for the permanently shutdown units of Millstone 1 and Indian Point 1, because it had been decided that external stakeholder interest in these sites (for both the operating and decommissioning units) warranted NRR maintaining a single point of contact for each of these sites. In addition, NRR retained PM responsibility for the early demonstration reactors and RTRs that were in decommissioning, as at the time, it was determined that the regulatory oversight for these facilities could be managed more effectively by a small centralized organization in NRR, which was experienced in the unique regulatory needs of these facilities.

In response to the staff’s October 18, 2005, Briefing on Decommissioning Activities and Status, the Commission issued the November 1, 2005, SRM (SRM M051018), directing the staff to review the various aspects of NRC’s decommissioning program and provide the Commission with possible options for further consolidation of the program in one division in NMSS. The staff evaluated NRC’s decommissioning program to determine if further consolidation of its elements into NMSS/DWMEP could result in any benefits or gains in efficiency and effectiveness in NRC’s decommissioning program or across the Agency.

DISCUSSION:

The staff evaluated the various aspects of NRC's decommissioning program to determine whether there would be any benefits or gains in efficiency and effectiveness in NRC's decommissioning program or across the Agency, from consolidating these aspects and activities in NMSS/DWMEP. In its evaluation, the staff considered the following factors: (1) the efficient use and balance of available resources and technical expertise in the Divisions, Offices, and Regions responsible for aspects of the decommissioning program; (2) the decommissioning requirements and regulatory structure for the different types of sites that NRC regulates; and (3) the regulatory roles and responsibilities of the various NRC Offices involved in decommissioning. A summary of the staff's evaluation for each program is presented below.

Complex Materials Sites

Both NMSS/DWMEP and the Regions have PM responsibility for complex materials sites. The Regions currently manage 18 of the 38 complex sites and have the resources and the appropriate expertise to effectively and safely manage the decommissioning of these sites. NMSS/DWMEP provides programmatic oversight of the complex sites managed in the Regions, and the Regions and NMSS/DWMEP coordinate effectively on any policy or technical issues associated with these sites. Continuous coordination with the Regions is carried out through Decommissioning Management Board meetings, Counterparts meetings, and Headquarters project monitors. Because many of these sites are approaching the end of the decommissioning process, the staff believes it would not be effective to transfer the sites to NMSS/DWMEP at this point in time. Also, four of these complex sites managed in the Regions could be transferred to the Commonwealth of Pennsylvania, if it becomes an Agreement State in FY 2007 or 2008. In addition, the staff previously considered the possibility of consolidating these sites in NMSS/DWMEP and determined that they should continue to be managed in the Regions and that most new complex sites would be managed in NMSS/DWMEP. Therefore, these 18 complex sites should continue to be managed out of the Regions, and the PM responsibility not transfer to NMSS/DWMEP.

Fuel Cycle Facilities

As FCSS maintains staff with the expertise necessary to perform licensing and safety reviews and inspections related to fuel cycle sites, a site is typically not transferred from FCSS to DWMEP until: (1) the licensee has ceased all operational activities; and (2) there are no issues (e.g., criticality concerns) that would warrant FCSS maintaining oversight and project management. This transfer process is set forth in an April 24, 2003, memorandum from DWMEP to FCSS. As the three fuel cycle sites currently performing partial decommissioning activities do not yet meet the above criteria for transfer to DWMEP, these sites should continue to be managed in FCSS, where the staff has the expertise necessary to safely license and inspect them.

Uranium Recovery Facilities

The uranium recovery program (which historically was in DWMEP) was moved to FCSS in December 2000, to balance the number of staff and the workload in DWMEP and FCSS.

Power Reactors and Research and Test Reactors

As reported in SECY-05-0013, “Semiannual Update of the Status of New Reactor Licensing Activities and Future Planning for New Reactors,” dated January 12, 2005, recent national and international developments have increased interest in licensing and construction of new reactors. NRR was reorganized on October 31, 2005, to prepare for the anticipated increase in the new reactor licensing activity. The staff believes that the transfer of NRR’s remaining decommissioning reactors to NMSS/DWMEP will enhance NRR’s focus on reactor operation issues, including license renewals and the anticipated increase in new reactor licensing activity.

Besides focusing existing NRR resources on operational and new licensing issues, this transfer would reduce the number of organizations responsible for decommissioning, thus improving the consistency of actions related to decommissioning. In addition, NMSS/DWMEP maintains most of the decommissioning expertise at NRC and manages the bulk of decommissioning sites that are subject to the License Termination Rule in 10 CFR Part 20, Subpart E. Consolidating the remaining NRR-managed decommissioning reactors in NMSS/DWMEP would allow these licensees to capitalize on decommissioning lessons learned and recent efficiencies and improvements in NRC’s decommissioning program, which are based in NMSS/DWMEP.

Financial Reviews

With regard to the financial review function in NRR, the staff believes that NRR should continue to retain its current responsibilities, including oversight of decommissioning reactor financial assurance, as the staff views this as an operational issue. Decommissioning financial assurance is essentially a subcategory of operating licensee financial qualifications and is part of the financial examination for an operating reactor. Both areas focus on how licensees will obtain, during their operational lives, money necessary for operation, maintenance, and decommissioning. The analysis of decommissioning financial assurance relies mainly on the assessment of: (1) trust fund investment performance and assumed real rates of return; (2) the reasonableness of future funds collection schedules; (3) public utility commission statutes and rate decisions; and (4) licensees' calculations of minimum funding amounts as prescribed by the NRC formula in 10 CFR Part 50.75. The analysis generally does not require expertise in the technical aspects of decommissioning or knowledge of actual costs for specific decommissioning activities until site-specific preliminary decommissioning cost estimates are submitted five years before permanent shutdown. NMSS will support NRR, as needed, with respect to site-specific financial reviews related to decommissioning.

Research Activities

We believe at this time that it is most effective to maintain the decommissioning support activities conducted by RES within that program, because the skills set and infrastructure support areas other than decommissioning. Currently, both RES and NMSS/DWMEP staff coordinate work and take steps to ensure integration of decommissioning activities, such as mutually tracking and coordinating decommissioning activities and participating on the Decommissioning Management Board, which serves as an effective mechanism for integrating inter-office and inter-regional program activities and issue resolution. The staff plans to continue this integration. NMSS staff will consult and coordinate with RES if any new decommissioning issues are identified that require assistance from RES. In addition, staff will reassess the current arrangement with RES after completion of the ongoing assistance to

determine the efficacy of future assistance.

COMMITMENTS:

The actions committed to by the staff in this paper are as follows.

As a result of the above discussion, the staff will:

> Transfer the oversight and PM responsibility for NRR's remaining decommissioning reactors (two power reactors, two early demonstration reactors, and 14 RTRs) to NMSS/DWMEP. Enclosure 2 contains a list of the decommissioning reactors that will be transferred.
>
> The staff may implement additional changes in the future, as necessary. Similar to the evaluation in this paper, any further changes would be based upon the following considerations: (1) the efficient use and balance of available resources and technical expertise in the Divisions, Offices, and Regions responsible for aspects of the decommissioning program; (2) the decommissioning requirements and regulatory structure for the different types of sites that NRC regulates; and (3) the regulatory roles and responsibilities of the various NRC Offices involved in decommissioning.

The staff will transfer the PM and oversight responsibility for the 18 decommissioning reactors currently being managed in NRR/DPR, to NMSS/DWMEP, to be in place by FY 2007. During the remainder of FY 2006, in support of the transfer of oversight and PM responsibility for these reactors, the staff will create and implement a plan for effectively transferring the current decommissioning RTRs and RTRs that will enter decommissioning in the future. The staff will update existing NMSS and NRR internal procedures, regarding NRR/NMSS interfaces, to address coordination of NRR and NMSS staff on RTR decommissioning (and defining specific areas of mutual support, coordination, and communication), without unnecessary burden on stakeholders. In developing these procedures, the staff will address regulatory and safety considerations, including licensed operators and qualified inspectors. The procedures will include regulatory and safety milestones that must be met before the oversight is transferred for a reactor that permanently ceases operations.

In FY 2006, NMSS/DWMEP staff will receive any necessary training related to unique aspects of RTRs. Regional inspectors who will assume inspection responsibility for the decommissioning RTRs also will receive training to become qualified inspectors for these sites. NRR will provide technical assistance to train NMSS personnel and to assure an effective and efficient transfer. The staff notes that the FY 2006 activities related to this transfer are unbudgeted activities. NRC management has discussed the potential for transfer of RTR decommissioning regulatory activities with the National Organization of Test, Research and Training Reactors (TRTR). NRR/DPR will work with NMSS/DWMEP and the Office of Nuclear Security and Incident Response to establish a communication plan to inform licensees, TRTR, and other stakeholders of the transfer of PM responsibility and to engage these stakeholders to address any concerns related to regulatory stability for the RTR facilities.

RESOURCES:

The transfer of the two power reactors, two early demonstration reactors, and 14 RTRs from

NRR to NMSS requires assigning NRR decommissioning budget resources to NMSS, as well as additional resources to account for the current workload projection and NMSS infrastructure to support the RTRs. This resource estimate applies to Regional and Headquarters direct and indirect effort, including project management, inspections, contract support, travel, and training.

In FY 2007, nine RTRs will be actively decommissioning and two decommissioning plans will be submitted for review. NRR has transferred one FTE and $200K that it planned for RTR decommissioning activities. These resources are insufficient to handle the current workload projection. Staff estimated that it would require approximately three FTE to accomplish the planned RTR decommissioning activities. NMSS plans to absorb the shortfall (approximately one FTE) and accomplish the work as part of the overall effectiveness gains within the decommissioning program. Further, as part of the effectiveness gains, NMSS would conduct the reviews with staff rather than contractors and will convert the contract assistance funds to FTE. The resource estimate also assumes that there will be minimal decommissioning activities at the power reactors and early demonstration reactors in FY 2007.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections.

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Enclosures:
1. Summary of NRC Decommissioning Program
2. Decommissioning Reactors to Transfer to NMSS