

SUMMARY OF U.S. NUCLEAR REGULATORY COMMISSION DECOMMISSIONING PROGRAM

1 Materials Facilities Decommissioning

1.1 Complex Materials Sites

Currently, there are 38 complex materials sites undergoing decommissioning. The Office of Nuclear Material Safety and Safeguards (NMSS)/Division of Waste Management and Environmental Protection (DWMEP) and Regions I, III, and IV have project management (PM) responsibility for complex materials sites.

1.2 Fuel Cycle Facilities

NMSS/Division of Fuel Cycle Safety and Safeguards (FCSS) provides licensing oversight and decommissioning project management for fuel cycle facilities, including conversion plants, enrichment plants, and fuel manufacturing plants.

Currently, three operating fuel cycle sites (one conversion facility and two fuel manufacturers) perform partial decommissioning activities.

1.3 Uranium Recovery Facilities

The uranium recovery program in NMSS/FCSS oversees both operating and decommissioning uranium recovery facilities. FCSS provides project management and technical review for decommissioning and reclamation of these facilities regulated under 10 CFR Part 40, Appendix A. These licensees include conventional uranium mills and in-situ leach facilities. Currently, there are 12 U.S. Nuclear Regulatory Commission (NRC)-licensed [Uranium Mill Tailings Radiation Control Act, Title II] sites in decommissioning.

2 Reactor Decommissioning

2.1 Power Reactors

Currently, NMSS/DWMEP and the Office of Nuclear Reactor Regulation (NRR) have PM responsibility for 17 decommissioning power reactors. NRR has PM responsibility for two decommissioning power reactors (Millstone 1 and Indian Point 1) and two decommissioning early demonstration reactors (Nuclear Ship Savannah and Vallecitos Boiling Water Reactor).

2.2 Research and Test Reactors

NRR provides project management and inspection oversight for 14 decommissioning research and test reactors (RTRs). Currently, 11 RTRs have decommissioning orders or amendments, and three RTRs are in "possession-only" status, either waiting for shutdown of another RTR at the site or for removal of the fuel from the site by the U.S. Department of Energy.

2.3 Financial Reviews

NRR provides oversight of licensee decommissioning financial assurance, which is intended to provide reasonable assurance that there will be sufficient funds to safely decommission the facility at the time it permanently ceases operations. This oversight is based on NRR review of the biennial decommissioning funding status reports (or annual reports for any plant that is within 5 years of the projected end of its operation or is involved in mergers or acquisitions) submitted by licensees, as required by 10 CFR Part 50.75. The reports include licensee estimates (based on the regulation's formula) of the amounts needed to decommission their plants, the amounts accumulated in the decommissioning trust funds to date, and schedules of any annual amounts remaining to be collected.

NRR is responsible for reviewing the financial and technical aspects of license transfers and developing the policy and program implementation for matters related to antitrust law and insurance and indemnity issues, until termination of the 10 CFR Part 50 license, even at those sites where project management has been transferred to NMSS/DWMEP. NRR also reviews financial assurance for decommissioning of independent spent fuel storage installations (ISFSIs) at reactor sites. NMSS/DWMEP reviews the financial assurance for ISFSIs that are not associated with a reactor. In addition, NMSS/DWMEP provides Project Office oversight of the financial assurance program for materials licensees. NMSS/DWMEP performs financial assurance reviews of materials licensees managed in NMSS/DWMEP and for non-standard financial assurance cases for materials licensees managed in the Regions and NMSS/FCSS.

With regard to financial assurance for interim storage of spent fuel, the office with PM responsibility reviews any cost estimates and financial or funding assurance plans submitted by licensees, associated with the Post-Shutdown Decommissioning Activities Report or pursuant to 10 CFR Part 50.54(bb). For bankruptcy matters, NRR is responsible for informing NMSS of bankruptcy cases for operating and decommissioning units managed in NRR. NMSS/DWMEP leads and processes the resolution of bankruptcy-associated regulatory actions for any bankrupt unit that permanently ceases power operation. NMSS/DWMEP is responsible for processing and reviewing all License Termination Plan cost estimates.

3 Research Activities

The Office of Nuclear Regulatory Research (RES) role at the NRC includes: (1) providing technical advice, technical tools and information to the program offices for identifying and resolving safety issues, making regulatory decisions, and promulgating regulations and guidance; (2) conducting independent experiments and analyses; and (3) developing technical bases for supporting realistic safety decisions by the Agency. In support of the decommissioning program, RES provides the following technical assistance: (1) development or modification of computer codes in support of implementation of regulations and guidance for decommissioning; (2) development of technical basis documents in support of regulations, guidance, and resolution of licensing issues; (3) development of safety evaluations and assessment of technical approaches and methods related to decommissioning; (4) participation in national and international activities related to risk analysis and performance assessment; and (5) initiation of technical advisory groups that enhance communication on issues important to site decommissioning.