

POLICY ISSUE INFORMATION

November 10, 2010

SECY-10-0149

FOR: The Commissioners

FROM: Charles L. Miller, Director
Office of Federal and State Materials
and Environmental Management Programs

SUBJECT: STATUS OF THE DECOMMISSIONING PROGRAM—2010 ANNUAL
REPORT

PURPOSE:

To provide the U.S. Nuclear Regulatory Commission (NRC) with the staff's 2010 Annual Report on the Status of the Decommissioning Program, the highlights of key decommissioning accomplishments in fiscal year (FY) 2010, as well as an outlook of activities for FY 2011. This paper does not address any new commitments or resource implications.

BACKGROUND:

The staff requirements memorandum (SRM) to COMSECY-08-0036, "Status of Decommissioning Program—2008 Annual Report," dated January 8, 2009, stated that staff should discontinue publication of the annual report on the status of decommissioning in NUREG-1814, and instead publish an annual Commission paper on the status of the decommissioning program with information substantially equivalent to that contained in the 2008 Annual Report. In accordance with this SRM, the 2010 Annual Report is provided to the Commission for information only.

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Enclosed is the 2010 Annual Report on the Status of the Decommissioning Program, which provides a comprehensive summary of the NRC's Decommissioning Program. The report summarizes the status of sites undergoing decommissioning since the last report, through September 30, 2010, including the decommissioning of complex materials sites, commercial reactors, research and test reactors, uranium recovery facilities, and fuel cycle facilities. The report also discusses highlights in the decommissioning program since last year's report, and informs the Commission of decommissioning issues that the staff will address in the coming year.

DISCUSSION:

Summary of Status Update for FY 2010

As of September 30, 2010, 12 nuclear power and early demonstration reactors, 12 research and test reactors, 19 complex decommissioning materials facilities, 1 fuel cycle facility (partial decommissioning), 21 Title I¹ uranium recovery facilities, and 11 Title II uranium recovery facilities are undergoing non-routine decommissioning or are in long-term safe storage, under NRC jurisdiction. In FY 2010, the Decommissioning Program continued to make progress at complex sites where decommissioning had long been delayed. For example, the staff completed its reviews of the West Valley Demonstration Project Phase I decommissioning plan. This, along with other actions by the U.S. Department of Energy (DOE) and State of New York, will allow progress to be made in decommissioning major parts of the facility. Progress was also facilitated through innovative decommissioning approaches for existing sites. One example of this is the staff's completion of the license transfer to Zion Solutions from the Exelon Generating Company to facilitate the decommissioning of Zion Units 1 and 2.

Throughout FY 2010, the staff also continued efforts to broaden available information on the Decommissioning Program and reflect a more national perspective. Information, where applicable, was collected from Agreement States on Agreement State sites. In FY 2010, staff also continued its emphasis on the decommissioning of legacy uranium recovery sites and participated in interagency efforts to address uranium contamination in the Navajo Nation and the Grants Mineral Belt area in New Mexico resulting in the development of a 5-year plan for remediation. Additionally, to ensure an efficient and effective regulatory approach on uranium recovery activities, NRC staff implemented a number of initiatives under the Integrated Decommissioning Improvement Plan (IDIP), including: updating site closure and site transition guidance, clearly defining the closure process, and seeking additional program improvements from staff with extensive experience.

The Decommissioning Program also addressed generic technical issues in FY 2010. In particular, a working group designated "Engineered Covers Technical Group" was established to discuss and review the implications of a report that resulted from an Office of Nuclear Regulatory Research project. The project involved assessments of the performance of engineered soil/composite cover materials with regard to infiltration of water through the covers at disposal sites. The technical group was tasked to assess the technical findings, any potential impact on low-level waste, uranium recovery, and decommissioning licensing activities and the

¹ Title I refers to facilities under the Uranium Mill Tailings Radiation Control Act of 1978, as amended, that were inactive, unregulated processing sites when the act was passed, while Title II facilities are those facilities licensed by the NRC or an Agreement State.

short-term/long-term significance of impacts as related to performance of engineered covers on the health and safety of the public and the environment. Given the broad range of facilities that are potentially impacted, engineered cover performance will continue to be a key area of work for the Decommissioning Program.

In FY 2010, the financial assurance working group (FAWG) continued to evaluate the financial assurance required for Category 1 and 2 radioactive sources to ensure that funding is available for the final disposition of the sources. The group also considered the issue of long-term storage of these unused sources. The FAWG formulated recommendations for consideration regarding these issues, and found that until additional disposal capacity is made available, the financial burden related to the disposal of these materials cannot be quantified with any specificity. Thus, the FAWG focused on various mitigation strategies including, but not limited to, modifying current financial assurance regulations to broaden their scope.

Trends in Fiscal Year 2011 and Beyond

It is expected that FY 2011 activity in the Decommissioning Program will remain largely level, as most power reactors remain in SAFSTOR mode. Progress in research and test reactor decommissioning is expected to increase somewhat in FY 2011, with Ford Nuclear Reactor and NASA Mockup and Plum Brook facilities expected to complete decommissioning in the coming year. Additionally, decommissioning activities are expected to be completed at several complex materials sites in FY 2011, including the ABC Laboratories, NWI Breckenridge, Sigma-Aldrich, and UNC Naval Products sites; and some Title II uranium recovery sites are expected to complete decommissioning activities and be transferred to DOE for long-term control. These sites are American Nuclear Corporation, Bear Creek, Exxon Mobil Highlands, and Rio Algom-Ambrosia Lake. It is expected that this progress in sites completing decommissioning will be offset by other sites (e.g., Army depleted uranium) entering the Decommissioning Program.

Finally, FY 2011 also will see continued emphasis on uranium recovery decommissioning in the staff's IDIP. In the past, IDIP focused primarily on materials and reactor decommissioning. The recent emphasis on uranium recovery decommissioning will continue, as staff examines what lessons-learned and best practices can be gained in the decommissioning of uranium recovery facilities, including legacy mill sites and in-situ recovery facilities. In this regard, the staff is working with the Office of International Programs and the International Atomic Energy Agency on programs to address uranium mining and milling contamination in countries lacking a strong regulatory framework.

CONCLUSION:

The staff plans to continue its close oversight of the decommissioning of nuclear power reactors, research and test reactors, complex materials sites, and uranium recovery facilities. In addition, the staff plans to continue to identify and implement methods to make the decommissioning program more efficient and effective and continue its efforts to prevent future legacy sites.

Site summaries for all decommissioning sites are accessible to the Commission and the public through the NRC's decommissioning website (<http://www.nrc.gov/about-nrc/regulatory/decommissioning.html>). To ensure that the website is current, project managers in the Office of Federal and State Materials and Environmental Management Programs, the

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Office of Nuclear Material Safety and Safeguards, and the Regions routinely review and update the program information.

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.

/RA/

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Enclosure:
Status of the Decommissioning
Program—2010 Annual Report

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