

**POLICY ISSUE**  
**(Information)**

November 7, 2017

SECY-17-0111

FOR: The Commissioners

FROM: Marc L. Dapas, Director  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: STATUS OF THE DECOMMISSIONING PROGRAM - **2017 ANNUAL REPORT**

PURPOSE:

To provide the U.S. Nuclear Regulatory Commission (NRC) staff's 2017 Annual Report on the Status of the Decommissioning Program, the highlights of key decommissioning accomplishments in Fiscal Year (FY) 2017, as well as an outlook of activities for FY 2018. 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 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML090080223), stated that the NRC staff should discontinue publication of the annual report on the status of decommissioning in NUREG-1814, and instead publish an annual SECY 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, this paper provides the 2017 Annual Report to the Commission for information.

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The enclosed 2017 Annual Report on the Status of the Decommissioning Program provides a summary of the NRC's decommissioning program. The report summarizes the status of sites undergoing decommissioning through September 30, 2017, including the decommissioning of complex materials sites, power reactors, research and test reactors, uranium recovery facilities, and fuel cycle facilities. The report also discusses highlights in the decommissioning program, provides key decommissioning accomplishments for FY 2017, and informs the Commission of decommissioning issues that the NRC staff will address in FY 2018.

Since 2002, an annual update regarding the status of sites with inadequate financial assurance has been provided to the Commission, as directed by the Commission in the SRM for SECY-02-0079, "Financial Analysis and Recommendations to Facilitate Remediation of Decommissioning Sites in Non-Agreement States" (ADAMS Accession No. ML022940653). Beginning with this update, the NRC staff is providing this information to the Commission as Enclosures 2 and 3 to this report, as discussed in SECY-16-0126, "2016 Annual Update: Progress and Future Plans for Decommissioning Sites with Inadequate Financial Assurance" (ADAMS Accession No. ML16257A529). Enclosures 2 and 3 contain sensitive internal information and are being withheld from public disclosure.

## DISCUSSION:

### Summary of Status Update for FY 2017

As of September 30, 2017, 20 nuclear power and early demonstration reactors, 4 research and test reactors, 13 complex materials facilities, 3 fuel cycle facilities, and 11 Title I<sup>1</sup> uranium recovery facilities are undergoing decommissioning or are in long-term safe storage, under NRC jurisdiction. Of the 20 power and early demonstration reactors in decommissioning, 14 are in SAFSTOR and 6 are in active decommissioning. Additionally, 22 Title I and 6 Title II uranium recovery facilities are in long-term care under a general license held by the U.S. Department of Energy (DOE), pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 40.27 and 40.28. In FY 2017, progress continued at complex materials sites, including some sites where decommissioning had long been delayed. Decommissioning work was completed at the Beltsville Agricultural Research Center in Beltsville, Maryland, and staff completed its review of the associated final status survey reports. Considerable progress was made in research and test reactor decommissioning, where decommissioning work was completed for the reactor at the State University of New York at Buffalo in Buffalo, New York, and the request for license termination is currently under NRC staff review.

In October 2016, the Fort Calhoun Nuclear Generating Station permanently ceased power operations and transitioned to decommissioning status. Oversight of the plant's decommissioning activities is expected to be transitioned from the Office of Nuclear Reactor Regulation (NRR) to the Office of Nuclear Material Safety and Safeguards (NMSS) in FY 2019. Staff will continue to coordinate with NRR and regional offices regarding recently shut down reactors as well as announced future power reactor shutdowns.

As noted in last year's report, the decommissioning program has adapted to new programmatic issues. Examples include the regulation of military sites contaminated with depleted uranium from past testing of munitions and military sites with radium contamination and other material

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<sup>1</sup> 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.

cited in the Atomic Energy Act of 1954, as amended, that is subject to the NRC's regulatory authority. In FY 2017, the NRC staff continued its work on the licensing of U.S. Army installations possessing depleted uranium from the Davy Crockett weapon system. The NRC staff issued Amendment 2 to License SUC-1593 in March 2016, which incorporated site-specific environmental monitoring plans and an associated quality assurance plan.

In FY 2017, the NRC staff continued its interactions with the military services, as directed by the Commission in SRM-SECY-08-0077, "Options for U.S. Nuclear Regulatory Commission Involvement with the Navy's Remediation of the Hunters Point Naval Shipyard Site in California," to stay informed of the cleanup at Navy sites, including Hunters Point Naval Shipyard, which is ongoing under the U.S. Environmental Protection Agency (EPA) oversight. In April 2016, a Memorandum of Understanding (MOU) between the NRC and the U.S. Department of Defense was finalized to address the NRC's role at military sites with unlicensed Atomic Energy Act of 1954, as amended, material being remediated under the Comprehensive Environmental Response, Compensation, and Liability Act. As part of the pilot site approach discussed in SECY-14-0082, "Jurisdiction for Military Radium and the U.S. Nuclear Regulatory Commission Oversight of U.S. Department of Defense Remediation of Radioactive Material," the NRC staff identified the Navy's Treasure Island site in California as the first pilot site under the MOU and participated in monthly conference calls with the EPA, the State of California, and Navy regarding the status of the site. Characterization activities will begin at Treasure Island in early FY 2018, and the NRC staff intends to review the site remediation plan and observe associated activities. The NRC staff identified the Army's Dugway Proving Ground site in Utah as a second pilot site and has performed monitoring activities at the site.

Another area of focus that continued in FY 2017 involved non-military sites with radium contamination. The NRC staff has identified and prioritized non-military sites with potential radium contamination due to historical manufacturing of consumer products, and began coordinating with Agreement and non-Agreement States to share information about these sites. In October 2016, the NRC staff issued a letter to the States (STC-16-080) which provided background information on the identification of these sites and the NRC's approach in both Agreement and non-Agreement States. The NRC staff also began its outreach to site owners in non-Agreement States in October 2016 to determine if followup actions are warranted at any of the identified sites. Followup actions may include conducting radiological surveys, establishing site access controls, and working with site owners on remediation, where applicable. As of September 30, 2017, initial site visits have been performed at 33 of the 47 unique site owner properties. Additionally, the NRC staff has determined that initial site visits are not necessary at 8 of the 47 unique site owner properties (e.g., some of these site owners possessed intact radium gauges and are already general licensees per 10 CFR 31.12 while others were incorrectly identified). The NRC staff has issued initial site visit reports for 22 unique site owner properties.

#### Activities in Fiscal Year 2018 and Beyond

During FY 2018, active decommissioning will continue at Humboldt Bay, La Crosse, and Zion Units 1 and 2 with the completion of decommissioning activities and license termination expected by 2020. In addition, the licensees for several reactors have expressed their intent to permanently cease power operations by 2019, including Three Mile Island Unit 1, Pilgrim, and Oyster Creek. These plants are expected to enter SAFSTOR.

Progress in research and test reactor decommissioning will continue in FY 2018, with the State University of New York at Buffalo continuing to work toward license termination at its facility in

Buffalo, New York. Progress will also continue at complex materials sites in FY 2018, with the closeout of decommissioning licensing activities at Beltsville Agricultural Research Center expected in October 2017. The NRC staff also expects the completion of remediation activities at the Bear Creek site, located in Wyoming, in FY 2018. The transfer of this site and others (e.g., Pathfinder - Lucky Mc) to DOE for long-term surveillance is expected to occur within the next few years.

In March 2017, Centrus, LLC, submitted a decommissioning plan (DP) amendment request for its Lead Cascade Facility in Piketon, Ohio. During the acceptance review, the NRC staff determined the submittal did not contain sufficient technical information. The NRC staff has requested supplemental information it considers necessary to conduct a detailed technical review of the DP and expects to receive this additional information in FY 2018.

The NRC staff plans to continue its efforts with respect to non-military radium by performing initial site visits and follow-on scoping surveys as necessary. Additionally, for sites that do not meet the NRC's unrestricted use criteria, the staff will focus on working with site owners on risk-informed approaches for site cleanup. The staff will also provide oversight appropriate to the scope and complexity of the cleanup at each site, and the level of staff effort will be commensurate with the significance of the contamination. In addition, the NRC staff will continue to implement its pilot site approach for military radium, as discussed in SECY-14-0082. Characterization activities will begin at the Navy's Treasure Island site in early FY 2018 and the staff will continue regular communications with the EPA, the State of California, and the Navy regarding the status of the site.

In FY 2018, the NRC staff will also continue to support the integrated transition rulemaking effort for reactor decommissioning.

#### CONCLUSION:

The NRC staff plans to continue its licensing activities and oversight of the decommissioning of nuclear power and early demonstration reactors, research and test reactors, complex materials sites, uranium recovery facilities, and fuel cycle facilities. In addition, the staff plans to continue with activities to identify and implement methods that will make the decommissioning program more efficient and effective.

Site summaries for all decommissioning sites are accessible to the public through the NRC's public Web site (<http://www.nrc.gov/waste/decommissioning.html>). To ensure that the Web site is current, project managers in NMSS and the regional offices routinely review and update the facility 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.

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Enclosures:

1. Status of the Decommissioning Program - 2017 Annual Report
2. 2017 Annual Update on Sites with Financial Assurance Issues (non-public)
3. 2017 Financial Assurance Update: Group I and Group II Site Summaries (non-public)

STATUS OF THE DECOMMISSIONING PROGRAM - 2017 ANNUAL REPORT **DATE**  
**November 7, 2017**

**ADAMS Accession No. ML17276B164 Pkg.**

**WITS 200900003 / WITS 200000122**

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