

POLICY ISSUE
(Information)

November 29, 2013

SECY-13-0128

FOR: The Commissioners

FROM: Brian E. Holian, Acting Director
Office of Federal and State Materials
and Environmental Management Programs

SUBJECT: STATUS OF THE DECOMMISSIONING PROGRAM—2013 ANNUAL
REPORT

PURPOSE:

To provide the U.S. Nuclear Regulatory Commission (NRC) with the NRC staff's 2013 Annual Report on the Status of the Decommissioning Program, the highlights of key decommissioning accomplishments in Fiscal Year (FY) 2013, as well as an outlook of activities for FY 2014. 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 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, the 2013 Annual Report is provided to the Commission for information.

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The enclosed 2013 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 since the last report through September 30, 2013, 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 FY 2014.

DISCUSSION:

Summary of Status Update for FY 2013

As of September 30, 2013, 18 nuclear power and early demonstration reactors, 7 research and test reactors, 15 complex decommissioning materials facilities, 2 fuel cycle facilities (partial decommissioning), and 11 Title II uranium recovery facilities are undergoing decommissioning or are in long-term safe storage, under NRC jurisdiction. Additionally, 22 Title I¹ 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 10 CFR 40.27 and 40.28. In FY 2013, the decommissioning program continued to make progress at complex sites where decommissioning had long been delayed. Remediation activities were completed at the Analytical Bio-Chemistry Laboratories site in Columbia, MO. The sanitary lagoon and the surrounding effluent discharge area were released for unrestricted use in January 2013. Remediation activities were also completed at the ABB, Inc., site, a former nuclear manufacturing facility located in Windsor, CT. ABB's Special Nuclear Material license was terminated in February 2012. The site was released for unrestricted use in September 2013 upon termination of ABB's byproduct license. The staff work associated with the ABB site included multiple confirmatory surveys, a review of seven final status survey reports, and a public meeting in the vicinity to discuss decommissioning activities.

The NRC and licensees also made considerable progress in research and test reactor decommissioning. After completing decommissioning and surveys at the University of Illinois site in 2012, the NRC terminated the University's research reactor license in January 2013. The staff also terminated the licenses of the National Aeronautics and Space Administration (NASA) Mockup and Plum Brook reactors in October 2012. The staff work associated with the NASA Plum Brook Facility included multiple confirmatory surveys and the review of 18 final status survey reports related to decommissioning activities.

In FY 2013, four power reactors permanently ceased operations and entered decommissioning: Crystal River Unit 3, Kewaunee, and San Onofre Units 2 and 3. The Office of Federal and State Materials and Environmental Management Programs (FSME) coordinated with the Regional offices, the Office of Nuclear Reactor Regulation, the Office of Nuclear Security and Incident Response, and the Office of the General Counsel regarding end of cycle meetings, licensing activities, transfer of inspection responsibilities, and public meetings. In May 2013, Region III inspection responsibility for Kewaunee was internally transferred from the Division of Reactor Projects to the Division of Nuclear Materials Safety. In August 2013, Region II transferred

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.

responsibility for the oversight of decommissioning activities at Crystal River Unit 3 to Region I. This unique transfer required close coordination between Regions I and II, and was necessary because of a previous re-alignment of functions that assigned materials and decommissioning oversight activities to Region I. Additionally, in August 2013, Region IV inspection responsibility for San Onofre Units 2 and 3 was internally transferred from the Division of Reactor Projects to the Division of Nuclear Materials Safety.

Regarding ongoing complex materials sites, the staff also continued its extensive coordination with the U.S. Army Corps of Engineers (USACE) at the BWX Technologies, Inc., Shallow Land Disposal Area (SLDA) in Vandergrift, PA. On September 30, 2011, USACE ceased excavation activities after a contractor exhumed material that was beyond the scope of USACE's established procedures. In response, the NRC staff provided technical guidance and conducted several site visits. Throughout FY 2013, the NRC staff has been assisting USACE with the development of an interagency Site-specific Supplemental Memorandum of Understanding (MOU) between USACE, DOE, and the NRC. The Supplemental MOU complements the existing MOU and incorporates for SLDA the relevant and appropriate requirements of 10 CFR Parts 70, 73 and 74. The Supplemental MOU will also define the specific roles of each Federal entity throughout the remainder of the remediation process. The staff will continue to work collaboratively with USACE to revise future Work Plans before resuming remediation activities.

Progress was also made at the West Valley site, where staff completed oversight activities associated with the demolition of the 01-14 Building. Demolition of this building began in December 2012 and was completed in May 2013. It was the first major structure demolition and removal at the site, which is a complex, multi-phase decommissioning effort. The staff also reviewed and consulted with DOE on its documented safety analysis, which served as the safety basis for the design of the new High Level Waste Canister Interim Storage Facility.

In FY 2013, the staff continued to work with the State of Wyoming and DOE to evaluate options for completing decommissioning at the ANC Gas Hills site given the limitations of available licensee funds. As part of this effort, the staff helped to determine the best use of the licensee's remaining decommissioning fund, including the construction of a diversion channel around Pond #1 to avoid erosion in the event of a flood.

The staff also continued work related to an U.S. Environmental Protection Agency (EPA) 2011 Non-Time-Critical Removal Action Memorandum that supported permanent disposal of approximately one million cubic yards of mine waste from the adjoining Northeast Church Rock Mine Site at the United Nuclear Corporation (UNC) Church Rock Mill Site. This proposed action will require UNC to submit a license amendment request to place the mine waste above the existing tailings impoundment. Disposal of mine waste from the Northeast Church Rock Mine Site at the UNC Church Rock Mill will be a major Federal action requiring significant collaboration among multiple agencies and with the Navajo Nation. In FY 2013, the NRC staff participated in several interagency coordination meetings, government-to-government meetings with the Navajo Nation, and frequent teleconference discussions as part of the EPA's Technical Design Committee.

As noted in last year's report, the character of the decommissioning program has changed considerably as new programmatic issues have arisen. Examples of such challenges are the regulation of military sites contaminated with depleted uranium from past testing of munitions and the contamination of NRC-licensed and unlicensed military sites with naturally occurring

and accelerator-produced radioactive material. In FY 2013, the staff continued its interactions with the military services, as directed by the Commission in SRM-SECY-08-0077, to better understand the issues and develop a path forward.

Throughout FY 2013, the staff continued to refine its program to conduct observational site visits at sites that have been transferred to DOE and are generally licensed pursuant to 10 CFR 40.27 and 40.28. The effort included finalizing guidance for conducting the site visits, performing site visits at a number of sites to determine the effectiveness of the guidance, and identifying areas for improving the guidance.

Trends in Fiscal Year 2014 and Beyond

The NRC staff expects FY 2014 activity in the decommissioning program to increase in the area of power reactors while remaining level in others. The progress in power and early demonstration reactor decommissioning is expected to continue. The number of sites will continue to increase as licensees, such as Vermont Yankee, have expressed their intent to permanently cease power operations.

Progress in research and test reactor decommissioning is expected to continue in FY 2014, with the University of Michigan Ford Reactor, State University of New York at Buffalo, and Worcester Polytechnic Institute facilities expected to complete decommissioning in the coming year. Additionally, decommissioning activities are expected to be completed at several complex materials sites in FY 2014, including the Mallinckrodt and Stepan sites. Some Title II uranium recovery sites are expected to complete decommissioning activities and be transferred to DOE for long-term surveillance. These sites are Bear Creek, Pathfinder Lucky Mc, and Umetco.

The staff will also continue to work with other Federal agencies, States, and other interested parties to address the varied challenges at sites with technical or financial issues. For example, the NRC staff will continue to assist with the development of an interagency MOU among USACE, DOE, and NRC that defines the role of each Federal entity throughout the remainder of the remediation process at SLDA. The staff will also continue to work with the State of Wyoming and DOE to evaluate options for completing decommissioning at the ANC Gas Hills site given the limitations of available funds.

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.

Site summaries for all decommissioning sites are accessible to the Commission and the public through the NRC's decommissioning Web site (<http://www.nrc.gov/about-nrc/regulatory/decommissioning.html>). To ensure that the Web site is current, project managers in FSME, the Office of Nuclear Material Safety and Safeguards, and the Regions routinely review and update the facility information.

COORDINATION:

OGC 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/

Brian E. Holian, Acting Director
Office of Federal and State Materials
and Environmental Management Programs

Enclosure:
Status of the Decommissioning
Program—2013 Annual Report

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OFFICE	DMWEP	DWMEP	DWMEP	Region I	Region III	Region IV
NAME	KConway	Sachten	LChang	MFerdas	ROrlikowski	BSpitzberg
DATE	11/7/13	11/14/13	11/7/13	11/19/13	11/20/13	11/18/13
OFFICE	OGC	OCFO	DWMEP	DWMEP	TechEd	FSME
NAME	BJones	JGolder	DPersinko	AMohseni for LCamper	CPoland	BHolian
DATE	11/19/13	11/18/13	11/21/13	11/21/13	11/21/13	11/29/13

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