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POLICY ISSUE

(Information)

November 30, 2020

SECY-20-0108

FOR: The Commissioners

FROM: John W. Lubinski, Director
Office of Nuclear Material Safety and Safeguards

SUBJECT: STATUS OF THE DECOMMISSIONING PROGRAM - 2020 ANNUAL REPORT

PURPOSE:

To provide the U.S. Nuclear Regulatory Commission (NRC) staff's 2020 Annual Report on the Status of the Decommissioning Program, key decommissioning accomplishments in Fiscal Year (FY) 2020 and expected activities for FY 2021. This paper does not address any new commitments or resource implications.

BACKGROUND:

Since 2008, and consistent with Staff Requirements Memorandum (SRM)-COMSECY-08-0036, "Status of Decommissioning Program - 2008 Annual Report," dated January 8, 2009 (Agencywide Documents Access and Management System [ADAMS] Accession Number ML090080223), the staff has provided the Commission with an annual report on decommissioning.

The enclosed 2020 Annual Report on the Status of the Decommissioning Program (Enclosure 1) provides a summary of the NRC's decommissioning program. The report summarizes the status of sites undergoing decommissioning, including the decommissioning of power reactors, research and test reactors, complex materials sites, uranium recovery facilities, and fuel cycle facilities. The report also provides key decommissioning accomplishments in FY 2020 and informs the Commission of expected activities for FY 2021.

CONTACTS: Dominick Orlando, NMSS/DUWP
301-415-6749

Brittany Bolz, NMSS/DUWP
301-415-3285

Enclosure 2 transmitted herewith contains Official Use Only - Sensitive Internal Information. When separated from Enclosure 2, this document is decontrolled.

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Since 2002, the NRC staff has provided an annual update to the Commission regarding the status of sites with inadequate financial assurance, as discussed in SECY-02-0079 “Financial Analysis and Recommendations to Facilitate Remediation of Decommissioning Sites in Non-Agreement States” (ADAMS Accession Number ML020950118) and approved by the Commission in the subsequent SRM (ADAMS Accession Number ML022940653). In FY 2017, the NRC staff began providing this information to the Commission as an enclosure 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 Number ML16257A529). Enclosure 2 of this paper provides an update and contains sensitive internal information and is being withheld from public disclosure.

DISCUSSION:

Status Update for Fiscal Year 2020

As of September 30, 2020, 25 nuclear power and early demonstration reactors, 4 research and test reactors (RTR), 10 complex materials facilities, 5 Title II¹ uranium recovery facilities,² and part of 1 fuel cycle facility are undergoing decommissioning or are in long-term safe storage under NRC jurisdiction. This represents two additional nuclear power reactors, one additional RTR, and two fewer complex materials facilities, when compared with last year’s report. Of the 25 power and early demonstration reactors in decommissioning, 12 have elected the SAFSTOR (long-term storage) option and 13 have elected the DECON (active decommissioning) option. Additionally, 19 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* 40.27 and 40.28. Further, there are two additional former mill sites, and the Moab, Utah, mill site that is currently undergoing decommissioning by DOE, that are not under a general license by DOE but have been designated as Title I sites by Congress. Thus, there are 22 Title I sites in total.

In response to the COVID-19 Public Health Emergency (COVID-19 PHE), the NRC took several steps to ensure that licensees at sites undergoing decommissioning maintained a safe work environment, while providing relief from certain regulatory requirements. These included issuing guidance to licensees regarding Part 73 security requirements, respiratory protection, fire protection, and processing several requests for temporary exemptions from NRC’s regulatory requirements during the COVID-19 PHE.

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

² Previous annual reports listed 11 Title II uranium recovery facilities undergoing decommissioning under NRC jurisdiction, seven of which were located in Wyoming. On September 25, 2018, the NRC entered into an agreement with the State of Wyoming. Under this agreement, Wyoming assumed regulatory authority over certain radioactive materials (83 *Federal Register* 48905; September 28, 2018). Effective September 30, 2018, the State of Wyoming assumed regulatory authority for 5 Title II uranium recovery sites undergoing decommissioning and 1 Title II uranium recovery site that is no longer in operation but is accepting 11e.(2) byproduct material from other licensees for disposal. NRC retained regulatory authority for the American Nuclear Corporation site.

In FY 2020, the NRC staff continued to make progress at sites undergoing decommissioning. Of note, the NRC staff completed the following actions:

- In September 2020, the NRC staff completed the Safety Evaluation Report for the license amendment request for the United Nuclear Corporation (UNC) Church Rock site in New Mexico to construct a disposal cell for mine spoils atop the existing mill tailings cell. The Draft Environmental Impact Statement was completed in November 2020.
- In September 2020, the NRC staff presented the results of its evaluation of the licensing status of depleted uranium (DU) at military sites (ADAMS Accession Number ML20188A173). Based on the NRC staff's extensive review of its own historical records and the reviews performed by the military as documented in their responses, the staff has concluded that current military possession of DU is appropriately authorized by an NRC license or being addressed through the Memorandum of Understanding (MOU) between the NRC and the Department of Defense (DoD) for Coordination on [Comprehensive Environmental Response Compensation and Liability Act] CERCLA Response Actions at DoD Sites with Radioactive Materials (ADAMS Accession Number ML16092A294).
- In November 2019, the NRC staff notified the site owner of the former Sessions Clock Company in Bristol, Connecticut, that remediation activities were completed, and the site meets NRC criteria for unrestricted release (ADAMS Accession Number ML19263A650). In April 2019, the U.S Environmental Protection Agency (EPA) completed a removal action to remediate the contaminated soil at the property and issued a final report in August 2019. The NRC staff used the EPA's report as the basis for its findings.
- In September 2019, an Interagency Agreement between NRC and Naval Reactors was approved by both DOE-Naval Reactors and the Office of Nuclear Material Safety and Safeguards, commencing NRC technical support services for the decommissioning of nuclear Navy surface ships, starting with the Surface Ship Support Barge (SSSB) (ADAMS Package Accession Number ML20177A172). Naval Reactors awarded a decommissioning contract for the SSSB to APTIM Corporation in June 2020. NRC staff began the technical review of the Decommissioning Work Plan in September 2020.
- In September 2019, the Reactor Decommissioning Financial Assurance Working Group was established to ensure effective regulation and oversight of financial assurance of reactors in decommissioning. In May 2020, the NRC staff issued a report outlining the results of the Working Group, concluding that the NRC has a robust regulatory, licensing, and oversight framework for power reactor decommissioning financial assurance and that the oversight framework continues to be robust for all current and anticipated approaches for accomplishing decommissioning (ADAMS Accession Number ML20121A188). The final report included nine recommendations for enhancements to guidance.
- In July 2020, the NRC staff issued a report entitled "Best Practices for Establishment and Operation of Local Community Advisory Boards Associated with Decommissioning Activities at Nuclear Power Plants" (ADAMS Accession Number ML20122A112) issued to Congress pursuant to the Nuclear Energy Information and Modernization Act. The report included: (1) a description of the type of topics that could be brought before a community advisory board; (2) how the board's input could inform the decisionmaking

process of stakeholders for various decommissioning activities; (3) how the board could interact with the NRC and other Federal regulatory bodies to promote dialogue between the licensee and affected stakeholders; and, (4) how the board could offer opportunities for public engagement throughout all phases of the decommissioning process. The report included a discussion of the composition of existing community advisory boards and best practices identified during the establishment and operation of such boards, including logistical considerations, frequency of meetings, and the selection of board members.

- NRC and the National Park Service (NPS) have an MOU for the ongoing environmental response actions at NPS sites with confirmed radium contamination, specifically the Great Kills Park in Staten Island, New York, and Spring Creek Park in Queens, New York. In September 2020, the NRC and NPS amended the MOU to include a third site, Dead Horse Bay, in Brooklyn, New York.
- The NRC staff continued its participation with other Federal agencies and the Navajo Nation in implementing the 5-year plan to address uranium contamination on the Navajo Nation. The staff is working with the Federal agencies and the Navajo Nation to develop the next plan which, because of the scope of activities and time needed to implement them, will be a 10-year plan. The NRC participated in a government-to-government consultation with the Navajo Nation President, Vice President and Navajo Counsel on August 18, 2020, to discuss the new 10-year plan. The staff continued to work with the Navajo Technical University to develop a 2-year degree program in radiation safety and to share courseware to conduct pilot training on the fundamentals of health physics.

Activities in Fiscal Year 2021 and Beyond

The staff will also continue to work toward the termination of licenses at sites where decommissioning has been completed such as Humboldt Bay, Zion Units 1 and 2, and La Crosse. In September the NRC staff approved the Order for the license transfer request for the Crystal River Unit 3 plant and independent spent fuel storage installation to Accelerated Decommissioning Partners to facilitate the decommissioning of the reactor site and management of the dry fuel storage facility. The staff will continue reviewing a request for the license transfer of Three Mile Island Unit 2 to TMI-2 Solutions, LLC to allow for the accelerated decommissioning of the damaged reactor and a license amendment to transfer Indian Point Units 1, 2 and 3 to Holtec Decommissioning International.

In FY 2021, the NRC staff intends to continue to make progress in the decommissioning of complex materials sites. The staff will also continue to work with the Oklahoma Department of Environmental Quality to evaluate funding options for the decommissioning of the FMRI (Fansteel) site and work with the EPA to determine if the site is eligible for cleanup under the CERCLA. The staff will review the new work plans for the Shallow Land Disposal area in FY 2021 and will conduct site visits and confirmatory measurement surveys during the cleanup activities at the UNC Naval site.

The NRC staff intends to continue implementing the MOU with the DoD for military radium by prioritizing its activities based on available resources. Factors for consideration in prioritizing annual monitoring activities include: (1) involvement of other regulatory agencies; (2) use of engineered controls and/or land use controls as remedies; (3) contamination in buildings for reuse; (4) amount or type of material and how transportable it is; and (5) previous monitoring activities.

The NRC staff plans to continue its efforts on non-military radium by working with site owners on risk-informed approaches for site cleanup. Additionally, the NRC staff will continue to implement the MOU with the National Park Service as remediation activities progress at the parks.

The NRC staff will continue its participation in the activities associated with the Navajo Nation 10-year plan and the DOE/Navajo Nation/Hopi quarterly meetings. Additionally, the staff will review DOE reports and plans for the reclamation and management of these sites. The staff will continue its review of the UNC license amendment request and the reviews of the Groundwater Corrective Action Plans for the Gunnison and Rifle sites in Colorado and the Green River site in Utah. The staff will continue to work with DOE to resolve issues associated with the Bluewater site and will work with the State of Wyoming to explore and implement options for decommissioning the American Nuclear Corporation site. The staff will also work with Wyoming, Colorado and Texas to complete the reviews of the Completion Review Reports for the Western Nuclear Incorporated (WNI), Durita, and Panna Maria sites and DOE for the Long-term Surveillance Plan for the WNI site.

CONCLUSION:

In FY 2020, the NRC staff made progress toward the completion of decommissioning of several sites. The NRC public Web site contains status summaries for the facilities managed in the Decommissioning Program (<https://www.nrc.gov/waste/decommissioning.html>). These summaries, which are updated annually or when significant changes in status occur, describe the status of each site and identify the major technical and regulatory issues affecting the completion of decommissioning.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections.

John W.
Lubinski

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W. Lubinski
Date: 2020.11.30
06:27:31 -05'00'

John W. Lubinski, Director
Office of Nuclear Material Safety
and Safeguards

Enclosures:

1. Status of the Decommissioning Program - 2020 Annual Report
2. 2020 Annual Update on Decommissioning Sites with Financial Assurance Issues (non-public)

SUBJECT: STATUS OF THE DECOMMISSIONING PROGRAM - 2020 ANNUAL REPORT
DATED November 30, 2020

ADAMS Accession Number: ML20259A505 – Pkg. WITS200900003/WITS200000122 via email*

OFFICE	NMSS/DUWP	NMSS/DUWP	NMSS/DUWP	NMSS/DUWP	NMSS/DUWP
NAME	DOrlando	BBolz	BWatson*	BVonTill*	SKoenick*
DATE	9/21/2020	9/21/2020	9/21/2020	9/29/2020	9/28/2020
OFFICE	NMSS/REFS	Region I	Region III	Region IV	Region IV
NAME	JTappert*	SHammann for ADimitriadis*	DHills*	GWarnick*	HGepford*
DATE	10/01/20	10/06/2020	9/30/20	10/06/20	10/06/2020
OFFICE	OGC	NMSS/DUWP	Tech Ed	NMSS	
NAME	Ilrvin*	PHolahan*	WMoore	JLubinski*	
DATE	10/22/2020	11/03/2020	11/4/2020	11/30/2020	

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