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Good morning Chairman Rogers, Ranking Member Cooper, and Members of the Subcommittee. I am pleased to be here today to represent the Department of Energy's (DOE) Office of Environmental Management (EM). I would like to provide you with an overview of the EM program, key accomplishments during the past year and what we plan to accomplish under the President's $6,119,099,000 Fiscal Year (FY) 2017 budget request, which includes $673,749,000 of proposed mandatory funding.

Overview of the EM Mission

EM supports the Department's Strategic Plan to position the DOE to meet the challenges of the 21st century and the Nation's Manhattan Project and Cold War legacy responsibilities. The Department will leverage past experience, applying best practices and lessons learned; identify, develop, and deploy practical technological solutions derived from scientific research; and look for innovative and sustainable practices that make cleanup more efficient.

The EM program was established in 1989 and is responsible for the cleanup of millions of gallons of liquid radioactive waste, thousands of tons of spent nuclear fuel and special nuclear material, disposition of large volumes of transuranic and mixed/low-level waste, huge quantities of contaminated soil and water, and deactivation and decommissioning of thousands of excess facilities. This environmental cleanup responsibility results from five decades of nuclear weapons development and production and Government-sponsored nuclear energy research and development. It involves some of the most dangerous materials known to mankind. EM has completed cleanup activities at 91 sites in 30 states; EM is responsible for the remaining cleanup at 16 sites in 11 states.

Since 1989, the EM footprint has reduced significantly. For example, the Fernald site in Ohio and the Rocky Flats site in Colorado, both of which once housed large industrial complexes, are

now wildlife refuges that are also available for recreational use. At the Idaho National Laboratory, we have decommissioned and demolished more than two million square feet of excess facilities, and removed all EM special nuclear material (e.g., highly enriched uranium) from the state.

There is less than 300 square miles remaining to be cleaned up across the EM complex and progress continues. The remaining cleanup work presents some of the greatest challenges.

EM Cleanup Objectives and Priorities

EM's first priority is worker safety and at our sites across the complex we continue to pursue cleanup objectives with that in mind. Taking many variables into account, such as risk reduction and compliance agreements, EM has generally prioritized its cleanup activities as follows:

- Ensuring that activities are performed safely while providing the necessary security framework;
- Radioactive tank waste stabilization, treatment, and disposal;
- Spent nuclear fuel storage, receipt, and disposition;
- Special nuclear material consolidation, stabilization, and disposition;
- Transuranic and mixed/low-level waste disposition;
- Soil and groundwater remediation; and
- Excess facilities deactivation and decommissioning.

In particular, the FY 2017 budget request will allow EM to:

- Complete activities necessary for resumption of waste emplacement operations at the Waste Isolation Pilot Plant;
- Commence startup testing and commissioning activities at the Salt Waste Processing Facility to support initiation of radioactive operations in 2018; and
- Continue construction on the Waste Treatment and Immobilization Plant to support direct feed of low activity waste by end of 2022.

Most importantly, EM will continue to discharge its responsibilities by conducting cleanup within a "Safe Performance of Work" culture that integrates environmental, safety, and health requirements and controls into all work activities. This ensures protection for the workers, public, and the environment

Key Recent and Near-Term Accomplishments

I would like to take this opportunity to highlight a number of EM's most recent accomplishments. Recently, the 4,000th canister of radioactive glass was poured at the Savannah River Site Defense

Waste Processing Facility. Achieving this milestone, along with other processing activities, enabled the closure of the seventh high-level waste storage tank at Savannah River with closure of the eighth tank in progress. At the Moab Site, half of the estimated 16 million tons of uranium mill tailings has been removed and shipped to an engineered disposal cell. At Hanford, we have completed cleanup of the bulk of the River Corridor cleanup, including more than 500 facilities and 1,000 remediation sites. At Oak Ridge, we are continuing design and critical decision reviews for the Outfall 200 Mercury Treatment Facility. The budget request enables EM to continue progress in completing buried waste exhumation at the Idaho site under the Accelerated Retrieval Project.

Highlights of the FY 2017 Budget Request

The FY 2017 budget request for EM includes $5,382,050,000 for defense environmental cleanup activities. The request will allow EM to maintain a safe and secure posture across the complex, while maximizing our work on compliance activities. The budget request supports the continued construction of two unique and complex tank waste processing plants at the Savannah River Site, South Carolina, and the Office of River Protection, Washington. We are working to ensure these facilities will operate safely and efficiently. These two facilities are projected to treat tens of millions of gallons of radioactive tank waste for disposal.

Among EM's top priorities is the safe re-opening of the Waste Isolation Pilot Plant (WIPP) outside of Carlsbad, New Mexico. EM continues to support recovery from two 2014 incidents at the facility that interrupted the nationwide program for the disposition of transuranic waste resulting from atomic energy activities. Since opening WIPP, EM has sent more than 11,800 shipments of transuranic waste for permanent disposal, safely emplacing nearly 90,000 cubic meters of waste. The FY 2017 budget request will continue corrective actions and safety activities to support WIPP, regulatory and environmental compliance actions, the Central Characterization Project and transportation activities, and the resumption of waste emplacement operations by December 2016.

In FY 2017, cleanup progress will continue to be made across the rest of the complex. At Idaho, the FY 2017 request will support the Integrated Waste Treatment Unit. This facility is planned to treat approximately 900,000 gallons of sodium bearing tank waste. The request also continues exhumations at the Subsurface Disposal Area, treatment of legacy contact-handled and remote-handled transuranic and mixed low-level waste and safe, secure management of spent nuclear fuel.

At the Savannah River Site, the FY 2017 request supports continued production of canisters of vitrified high-level waste, and the construction of an additional on-site disposal unit for saltstone, the separated and treated low-activity fraction component of tank waste. Complete construction to support the planned commissioning and start-up of the Salt Waste Processing Facility in 2018. In addition, the request supports the safe and secure operation of the H Canyon/ HB-Line for the purpose of processing aluminum-clad spent nuclear fuel and down-blending EM-owned plutonium, ensuring the availability of space in K- and L-Areas for the future receipt of materials returned under national security summit agreements.

At the Office of River Protection, the FY 2017 request supports continuing construction of the Low-Activity Waste (LAW) Facility, Balance of Facilities, and outfitting of the Analytical Laboratory of the Waste Treatment and Immobilization Plant (WTP), facilities which are the centerpiece of the Department's plan to begin the direct feed of low activity to the LAW facility (DFLAW) as soon as end of 2022. It will also simultaneously support ongoing efforts to resolve the technical issues associated with the WTP Pretreatment Facility and the WTP High-Level Waste Facility. The FY 2017 request is designed to achieve the immobilization of low activity waste as soon as practicable while resolution of technical issues continues. In support of DFLAW, the request includes funds for engineering scale testing and final design of the Low Activity Waste Pretreatment System, which will remove cesium and solids from the tank waste and provide feed directly to the Low Activity Waste Facility.

Ongoing cleanup efforts continue at Richland. The FY 2017 request supports the completion of the Plutonium Finishing Plant Facility transition and certain disposition activities in order to achieve slab-on-grade and completion of a cap over the site. The FY 2017 request also supports continued remediation of the 618-10 Vertical Pipe Units and planning and technology maturation for the remediation of the 324 hot cell facility located over the 300-296 waste site.

At Oak Ridge, the FY 2017 request will maintain EM facilities in a safe, compliant, and secure manner; and support continuing design and critical decision reviews for the Outfall 200 Mercury Treatment Facility at the Y-12 National Security Complex. The processing of contact-handled and remote-handled transuranic waste debris will continue at the Transuranic Waste Processing Center while technology maturation and planning continues for the Sludge Processing Facility Buildout project. Additionally, the budget request supports continued direct disposition of Consolidated Edison Uranium Solidification Project material from Building 3019.

With the most challenging cleanup sites before EM, we understand the importance of technology development in reducing life cycle costs and enhancing our effectiveness. To help address many of the technical challenges involved with high-risk cleanup activities, the FY 2017 request reflects a total investment in technology development of $33,000,000. The FY 2017 budget supports testing multiple technologies to solidify/stabilize mercury in soil and building materials to minimize the potential of mercury releases to the environment when decontamination and

decommissioning of excess facilities begins at the Oak Ridge site. EM will also invest in characterization of and treatment options for Technetium-99, a key radioactive constituent in tank waste and in soils at sites across the complex; in robotics and semi-autonomous systems required for remote access to nuclear, chemical and other high-hazard facilities that are inaccessible or restricted to human entry; and in the development of test beds for the demonstration of treatment technologies, innovative tooling, and other technical solutions.

Budget Authority and Planned Accomplishments by Site

Office of River Protection, Washington (Dollars in Thousands)

FY 2016 Enacted	FY 2017 Request
$1,414,000	$1,499,965

Key Accomplishments Planned for FY 2017

- Maintain scheduled construction activities for the Low Activity Waste Facility, Analytical Laboratory, and Balance of Facilities to support the Direct Feed Low Activity Waste approach
- Initiate single-shell tank retrievals in AX Tank Farm
- Complete retrieval of AY-102 double-shell tank
- Complete Low Activity Waste Pretreatment System (LAWPS) preliminary design to a design maturity of 90%
- Continue resolution of technical issues of Criticality; Hydrogen Gas Vessels; and Erosion/Corrosion at the Pretreatment Facility

Savannah River Site, South Carolina (Dollars in Thousands)

FY 2016 Current	FY 2017 Request
$1,336,566	$1,448,000

Key Accomplishments Planned for FY 2017

- Package 100 to 110 canisters of vitrified high-level waste at the Defense Waste Processing Facility
- Operate Actinide Removal Process and Modular Caustic Side Solvent Extraction Unit to process 1.7 million gallons of salt waste

- Support planned construction, commissioning, and start-up activities for the Salt Waste Processing Facility
- Complete construction of Saltstone Disposal Unit #6
- Continue to receive foreign research and domestic research reactor spent nuclear fuel for safe storage and disposition
- Disposition spent nuclear fuel in H-Canyon by processing

- Activities to support implementation plan activities for the Defense Nuclear Facilities Safety Board Recommendation 2012-1 to mitigate and remedy safety issues at 235-F

Carlsbad Field Office, New Mexico (Dollars in Thousands)

FY 2016 Enacted	FY 2017 Request
$304,838	$271,000

Key Accomplishments Planned for FY 2017

- Complete activities necessary for resumption of waste emplacement operations at the Waste Isolation Pilot Plant by December 2016
- Continue design and permitting actions for new ventilation shaft and on-site storage projects

Los Alamos National Laboratory, New Mexico (Dollars in Thousands)

FY 2016 Enacted	FY 2017 Request
$185,000	$189,000

Key Accomplishments Planned for FY 2017

- Address the nitrate salt bearing transuranic wastes
- Remediation of town site (TA-43) cleanup of solid waste management units from the 1940s and 1950s production sites
- Complete the investigation of hexavalent chromium contamination of the groundwater beneath Mortandad and Sandia Canyons including field and bench-scale testing and plume control interim measures

Idaho National Laboratory, Idaho (Dollars in Thousands)

FY 2016 Enacted	FY 2017 Request
$396,000	$362,088[1]

Key Accomplishments Planned for FY 2017

- Continue treatment of sodium bearing waste in the Integrated Waste Treatment Unit
- Characterize, package, certify, and temporarily store exhumed waste on site pending the resumption of operations at and shipments to the Waste Isolation Pilot Plant
- Complete exhumation of targeted buried waste at the Accelerated Retrieval Project VIII facility
- Continue safe storage of spent (used) nuclear fuel

Oak Ridge Site, Tennessee (Dollars in Thousands)

FY 2016 Current	FY 2017 Request
$250,878	$213,219[2]

Key Accomplishments Planned for FY 2017

- Continue planning design and preparation of regulatory documentation and Critical Decision reviews for the Outfall 200 Mercury Treatment Facility
- Continue processing transuranic waste debris at the Transuranic Waste Processing Center
- Continue offsite disposition of select Oak Ridge waste stream

[1] The amount reflects Defense Environmental Cleanup portion, the total Idaho FY17 Request is $370,088,000.
[2] The amount reflects Defense Environmental Cleanup portion, the total Oak Ridge FY17 Request is $391,407,000.

Richland Operations Office, Washington (Dollars in Thousands)

FY 2016 Current	FY 2017 Request
$988,091	$797,760[3]

Key Accomplishments Planned for FY 2017

- Complete Plutonium Finishing Plant Facility transition and selected disposition activities pursuant to achieving slab-on-grade including completion of a cap over the site
- Begin project planning for dry storage options for the cesium and strontium capsules currently stored at the Waste Storage Encapsulation Facility
- Planning and technology maturity for the remediation of the highly radioactive waste site 300-296 located beneath the 324 Building
- Continue remediation of the 618-10 Vertical Pipe Units

Nevada National Security Site, Nevada (Dollars in Thousands)

FY 2016 Enacted	FY 2017 Request
$62,385	$62,176

Key Accomplishments Planned for FY 2017

- Complete closure activities for 9 soil corrective action sites
- Support safe disposal of approximately 34,000 cubic meters of low-level and mixed low-level radioactive waste

Conclusion

Mr. Chairman, Ranking Member Cooper, and Members of the Subcommittee, I am honored to be here today representing the over 20,000 men and women that carry out our Office of Environmental Management mission. We are committed to achieving our mission and will continue to apply innovative environmental cleanup strategies to complete work safely, and efficiently, thereby demonstrating value to the American taxpayers. All of this work will, first and foremost, be done safely, within a framework of best business practices. I am pleased to answer any questions you may have.

[3] The amount reflects Defense Environmental Cleanup portion, the total Richland FY17 Request is $800,000,000.