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U.S. Department of Energy
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Committee on Appropriations
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Good morning, Chairman Dorgan and Members of the Subcommittee. I am pleased to be here today to answer your questions on the President's Fiscal Year (FY) 2008 budget request for the Department of Energy's Environmental Management (EM) program. I want to thank the Subcommittee for support of the EM program.

The EM mission was undertaken to address the safe and successful cleanup of the Cold War legacy brought about from five decades of nuclear weapons development and government-sponsored nuclear energy research. This mission, as I pointed out last year, is both inherently challenging and innately beneficial to the American people. As this committee knows the EM program has solved several cleanup challenges, including Rocky Flats and Fernald, that at one time seemed unanswerable. We are also making progress on the many other complex challenges that the program still faces. Since I last appeared before this committee, EM has been able to achieve notable results by addressing these challenges through a risk reduction and prioritization strategy and a judicious use of the resources that Congress entrusts to us. EM is implementing this prioritized, risk reduction strategy supported by the crucial tenets of safety, performance, cleanup, and closure.

The President's Fiscal Year 2008 budget request will allow this prioritized work on these important cleanup and closure projects to continue across the complex. For the EM program, the President's budget request for FY 2008 is \$5.66 billion. We've been able to achieve a decrease of \$173 million from the FY 2007 request by employing a thoughtful balance of reducing risk and completing cleanup for the EM program. Nearly half of our budget request will go towards our highest risks activities in stabilizing tank waste, nuclear materials, and spent nuclear fuel, and another quarter is going to clean up contaminated soil, groundwater, and unused facilities. With this request, we are continuing on our strategic course to address high priority-tank waste treatment and radioactive waste disposition while preserving our site completion and closure drive.

With this budget request, the Defense Waste Processing Facility at Savannah River Site (SRS), the Advanced Mixed Waste Treatment Facility at Idaho National Laboratory (INL), and the Toxic Substance Control Act Incinerator at Oak Ridge Reservation (ORR) will continue to operate, along with the initiation of operations at the Depleted Uranium Hexafluoride (DUF₆) conversion facilities in both Ohio and Kentucky. Design and construction will continue at the Waste Treatment Plant at Hanford, the Sodium-Bearing Waste Treatment Plant at INL, and the Salt Waste Processing Facility at SRS. Tank farm

operations will continue at Hanford, INL, and SRS along with spent nuclear fuel receipt, storage, and cleanup.

At the SRS, this request will support ongoing nuclear material processing in H-Canyon and plutonium vitrification design to support ultimate disposition. At Hanford, it supports consolidation of plutonium and unirradiated category 1 and 2 nuclear fuel to an off-site location, pending a consolidation decision. Consolidation of enriched uranium from INL to an off-site location, and design and long-lead procurement for the U-233 disposition project at Oak Ridge Reservation is also supported in this request.

This request enables transuranic (TRU) waste projects to continue with priority for INL and Los Alamos National Laboratory (LANL) TRU waste. Other contact and remote-handled TRU shipments to the Waste Isolation Pilot Plant (WIPP) are also supported. Low-level radioactive waste and mixed low-level radioactive waste activities will be supported at Hanford, Nevada Test Site (NTS), INL, SRS, and ORR.

The request will allow high-priority waste retrieval, soil and groundwater remediation, and decontamination and decommissioning (D&D) of excess facilities at Hanford, INL, SRS, ORR, Portsmouth, Paducah, LANL, and other sites. In addition, the request supports targeted technology development and deployment in support of high-level waste, soil and groundwater, and facility D&D.

With this budget request, EM will achieve our goals for risk reduction and cleanup completion at:

- Lawrence Livermore National Laboratory-Site 300, California
- Inhalation Toxicology Laboratory, New Mexico
- Pantex Plant, Texas
- Sandia National Laboratory, New Mexico
- Argonne National Laboratory-East, Illinois

As cleanup work is completed at sites with continuing missions, EM will transfer long-term surveillance and monitoring activities to the cognizant program office or, for those sites without a continuing mission, to the Office of Legacy Management.

The FY 2008 budget request will allow the EM cleanup program to reduce risk, honor commitments and produce results worthy of the investment of the American people. We are committed to ensuring strong management of this complex cleanup work to secure safe and efficient progress that protects the public, our workers, and the environment. We have shown we can deliver meaningful results. Your continued support will allow us to deliver results important for today, as well as for generations to come.

RISK REDUCTION RESULTS

The results being delivered by the EM program's risk reduction and prioritization strategy are proving that linking safety, performance, cleanup, and closure can lead to

significant outcomes. We are communicating and discussing our challenges with our State and Federal regulators, Congress, the communities, and other interested parties. We believe that reasonable solutions are best found through open interaction with all interested parties. Recently, we celebrated another success at the completion ceremonies for the Fernald, Ashtabula and Columbus sites. Cleanup successes achieved with the assistance of representatives from Congress, the State and national regulatory agencies, and the communities, collaborating and focusing on a common vision. It is the latest demonstration of our progress following the earlier completion of cleanup at Rocky Flats in Colorado, the Kansas City Plant in Missouri, and the Lawrence Livermore National Laboratory-Main Site in California. All these completions should be recognized as results that have been borne from partnerships founded on mutual respect and collaboration.

EM has also made other significant progress:

- Stabilizing and packaging for disposition all plutonium residues, metals, and oxides (SRS and Hanford);
- Producing well over 2,000 cans of vitrified high-level waste from radioactive tank liquid wastes (SRS and the West Valley Demonstration Project);
- Retrieving and packaging for disposal over 2,100 metric tons of spent nuclear fuel from the K-Basins on the Hanford site to protect the Columbia River;
- Characterizing, certifying, and shipping close to 37,000 cubic meters of TRU waste from numerous sites to WIPP for permanent disposal;
- Disposing of more than 965,000 cubic meters of legacy low-level waste and mixed low-level waste (contaminated with hazardous chemicals); and
- Eliminating 11 out of the 13 high-risk material access areas through material consolidation and cleanup.

In addition, on a site-specific level, we have:

- Initiated pre-conceptual design of the Plutonium Disposition Facility at SRS;
- Completed disposal at WIPP of all legacy drummed TRU waste from SRS;
- Completed demolition of the 232-Z facility at Hanford;
- Completed clean up at the Melton Valley area and the D&D of three gaseous diffusion buildings at the ORR (K-29, 31 and 33) at ORR;
- Disposed of over 8,500 tons of scrap metal from the Portsmouth site; and
- Completed the first remote-handled TRU waste shipments to the WIPP from INL.

SOLVING THE CHALLENGES

The task before us is extremely complex. We sometimes face the challenge of having to engineer new approaches or invent new technologies as we proceed. Technologies were not available or sufficiently effective, our regulatory environment has continued to change, performance issues have hindered progress, new scope has been added to our program, and greater than anticipated contamination has been found for some existing cleanup. But ingenuity and hard work are resulting in progress.

DOE is committed to resolve this cleanup in partnership with our stakeholders and regulators. The consequences of inaction pose unacceptable risks to our environment and the public.

In continuing to address these challenges, EM is focusing its cleanup efforts on the reduction of high risk issues to most efficiently invest the Department's FY 2008 funding request. We intend to overcome these challenges in collaboration with our partners, dealing openly with any impacts to previously predicted cost, schedule and performance. I want to assure you that we will meet these challenges with the energy and dedication that have demonstrated our steadfastness to our mission and our commitment to the public.

First and foremost, safety is our top priority. We will continue to maintain and demand the highest safety performance. We have taken measures to fully integrate safety into our project designs at an earlier stage while assuring our line project teams have the necessary experience, expertise, and training. Every worker deserves to go home as healthy as she or he was when they came to work in the morning. Safety will remain a cornerstone in the execution of our mission objectives.

We are actively engaged, both within the Department and externally with our regulators and stakeholders, in identifying issues that impact our mission objectives. We have been challenged by lower than expected performance levels, increased scope, and unrealized planning assumptions. As we identify issues that could affect future performance and regulatory commitments, we are taking significant steps to improve our operations in planning and executing our work. We are applying lessons learned to help prevent future occurrences that will impact our planning and commitments.

One of my goals as Assistant Secretary is that at least 90 percent of our "projectized" portfolio will meet or exceed our cost and schedule targets. We have begun the process of integrating our management tools into our business processes. Over the past year, I have personally conducted Quarterly Performance Reviews of all EM projects with our leadership team. I report to you that we have showed progress but we have yet to realize the full potential of implementing our management systems and better applying risk management principles—that is, identifying project uncertainties and developing mitigation measures. Some of our projects have fallen short of expected performance, but we are engaging our field management contractors with state-of-the-practice project management methods.

Over the last year, it has become apparent that we have not yet attained our full potential in our procurement and execution of projects. We have instituted measures to strengthen our emphasis on program execution. This multi-year objective already is producing results that should provide more effective management in the future. This initiative is being coupled with additional training for federal managers and staff to enhance project management and acquisition skills. This integrated approach will deliver dividends for our managers in the long term.

We are improving our ability to ensure that proper procurement vehicles are available to meet our acquisition strategies. We are taking a new look at contract types and fee structures within our contracts. EM must acquire the best services including those of small business, to meet our business objectives and to become a top-performing organization.

I have asked my senior leadership at Headquarters and in the field to take immediate actions to ensure that everyday operating processes reflect lessons learned. Lastly, in conjunction with the National Academy of Public Administration, EM has undertaken a review of our organization and its associated functions and authorities. To date, the process has identified areas for improvement, along with some refinements of our organizational alignment. During the next few months, EM will be implementing the resulting recommendations to ensure we have an organizational structure that will enhance our ability to respond to the needs of the mission.

THE FY 2008 BUDGET REQUEST

The Department's FY 2008 budget request for defense EM activities totals \$5,655 million. The request consists of three appropriations, Defense Environmental Cleanup, Non-Defense Environmental Cleanup, and the Uranium Enrichment Decontamination and Decommissioning Fund.

The FY 2008 Budget request reflects safety as its utmost priority. The Office of Environmental Management is committed to our safety principles and to maintaining the highest safety performance to protect the workers, the public and the environment.

The budget request reflects prioritizing program work to balance the goals of risk reduction; completing ongoing work to achieve completion at four sites; and, meeting our environmental commitments. For FY 2008, EM's funding priorities are listed in order of risk, to best address our cleanup challenges:

- Requisite safety, security, and services across EM cleanup sites;
- Radioactive tank waste storage, treatment, and disposal;
- Spent nuclear fuel storage, receipt, and remediation;
- Solid waste (transuranic, low-level, and mixed low-level wastes) treatment, storage, and disposal;
- Special nuclear materials storage, processing, and disposition;
- Soil and groundwater remediation; and
- D&D of contaminated facilities.

Examples of milestones and planned activities for FY 2008 by site-specific categories are:

Hanford

Richland

- *Consolidate, package, and remove of spent nuclear fuel and other radioactively-contaminated elements within the K Basins (K-East and K-West).*

The K Basins project is a high priority, risk reduction activity due to its close proximity to the Columbia River. The goal of this project is removal of all spent nuclear fuel, radioactive sludge, contaminated K Basin water, and radioactive debris from the K Basins. The endpoint of the K Basins cleanup will mean the removal of more than 55 million curies of radioactivity that pose a threat of leakage to the surrounding environment, including the Columbia River.

- *Amplify River Corridor remediation activities for Reactor Areas D, F, and H.*

The River Corridor Closure Project will complete remediation of contaminated waste sites; the D&D and demolition of facilities that are adjacent to the Columbia River; and placement of eight reactors into an interim safe storage condition. The work performed within the River Corridor Closure Project includes digging up contaminated soil, constructing interim safe storage (cocooning) of the reactors, demolishing facilities in the old reactor complexes and facilities in the 300 Area, disposing of waste in the Environmental Restoration Disposal Facility, and constructing surface barriers or caps over contaminated sites.

- *Continue retrieval of contact handled suspect transuranic waste and scheduled shipments to WIPP.*

The Hanford Site contains thousands of containers of suspect transuranic waste, low-level, and mixed low-level wastes. The end point of this project will include the retrieval of contact-handled suspect transuranic waste in the low-level burial grounds, the treatment of mixed low-level waste, the disposal of low-level waste, and certification and shipment of transuranic waste to WIPP.

- *Continues on track groundwater/vadose zone remediation activities.*

Due to forty years of vast weapon production processes, Hanford's groundwater has been contaminated with carbon tetrachloride, chromium, technetium 99, strontium, and uranium plumes. EM is dedicated to preventing the potential for contaminants reaching the groundwater by: decommissioning an additional 100 unused groundwater wells; monitoring 700-plus wells for contaminants of

concern above drinking water standards; and, commencing design of final remediation actions to address carbon tetrachloride and technetium plumes.

Office of River Protection

- *Sustain tank farm closure processes and maintain the tanks in a safe and compliant condition.*

The radioactive waste stored in Hanford tank farms has been accumulating since 1944. Due to the age of the tanks, a number have leaked in the past into surrounding soil and groundwater. In order to reduce the risk of future tank leaks into the environment, the overall objectives of this project include the stabilization of radioactive waste stored underground in tanks, including retrieval, treatment, disposal, and closure of the facilities.

- *Progress on path forward for the Waste Treatment and Immobilization Plant.*

The Waste Treatment and Immobilization Plant (WTP) is critical to the completion of the Hanford tank waste program by providing the primary facility to immobilize (vitrify) the radioactive tank waste at the Hanford Site. The WTP complex includes five facilities: the Pretreatment Facility, the High-Level Waste Facility, the Low-Activity Waste Facility, the Balance of Facilities, and the Analytical Laboratory. In FY 2008, the WTP project team plans to complete: close-in of the annex building in the Low-Activity Waste Facility; installation of roofing and completion of the building shell for the Analytical Laboratory; construction of the water treatment building in the Balance of Facilities; and renewal of construction for the High-Level Waste Facility and the Pretreatment Facility.

Idaho

- *Transfer spent nuclear fuel from wet to secure dry storage.*

Promote the safe and secure receipt, dry storage, and packaging and future transfer of the spent nuclear fuel to a Federal geologic repository.

- *Continue shipments of transuranic waste to the WIPP.*

Maintain program activities that support waste characterization, packaging, and transportation of remote-handled transuranic waste to WIPP that lead to reduced surveillance and operation costs.

- *Pursue ongoing sodium-bearing waste treatment facility construction, including efforts to gain necessary regulatory approvals for sodium bearing waste treatment and disposal.*

The overall objective of this project is treatment and disposal of the sodium-bearing tank wastes, closure of the tank farm tanks, and performance of initial tank soils remediation work. Construction and operation of the sodium-bearing waste facility will reduce potential risk to human health and the environment by preventing the potential migration of contamination into the Snake River Plain Aquifer, which is a sole-source aquifer for the people of Southeastern Idaho.

Los Alamos National Laboratory

- *Characterize, certify, and ship above-grade transuranic waste inventory.*

The Solid Waste Stabilization and Disposition Project includes the treatment, storage, and disposal of legacy transuranic and mixed low-level waste generated between 1970 and 1999 at LANL. Final disposal of the legacy transuranic waste from LANL will reduce risk to workers, as well as reduce security costs associated with transuranic waste.

- *Promote soil and water remediation and monitoring.*

The LANL Soil and Water Remediation Project's objective is to identify, investigate and remediate, when necessary, areas with chemical and/or radiological contamination attributable to past Laboratory operations.

In FY 2008, in order to fulfill the objective of protecting and monitoring the regional aquifer, as well as long-term surveillance and monitoring to provide necessary safeguards and protection for surface and ground waters, the following activities are planned:

- Perform groundwater monitoring at all major watersheds: LA/Pueblo; Mortandad; Canon de Valle; Sandia; and in close proximity to the major waste sites;
- Conduct stormwater sampling and implement erosion control measures;
- Install and monitor four wells in Pajarito and Bayo canyons; and
- Complete construction of 260 Outfall Corrective Measures for alluvial and surface water treatment system.

Oak Ridge

- *Continue design of U-233 down-blending project and begin Building 3019 modifications*

Down-blending the Building 3019 inventory for disposition is in accordance with the national non-proliferation goals by making the U-233 material unsuitable for use in weapons and reducing security costs at the Oak Ridge National Laboratory.

- *Ship contact-handled transuranic waste to WIPP.*

Process 250 cubic meters of contact-handled transuranic debris and 170 cubic meters of remote-handled transuranic debris with shipments to the WIPP; and continue to dispose of low-level/mixed low-level waste at the NTS.

- *Complete the Molten Salt Reactor Experiment fuel salt removal remediation project.*

Upon completion of active remediation, surveillance and maintenance activities of the Molten Salt Reactor Experiment facility will be provided until decontamination and decommissioning of the site has occurred.

- *Decontaminate and decommission building K-25 and K-27, including completing demolition of the K-25 west wing.*

Surveillance and maintenance of the K-25 and K-27 buildings will be continued in order to maintain safe conditions. Demolition of K-25 east wing and K-27 will occur after the decontamination and decommissioning process.

Paducah

- *Complete construction and startup of the depleted uranium hexafluoride conversion facility (DUF6).*

The Paducah DUF6 conversion facility is scheduled to begin operation in FY 2008. The DUF6 conversion facility will convert depleted uranium hexafluoride into a more stable form, depleted uranium oxide, which is suitable for reuse or disposition. The depleted uranium oxide will be sent to a disposal facility, the hydrogen fluoride by-products will be sold on the commercial market, and the empty cylinders will be sent to disposal or reused.

- *Store, treat, and dispose of legacy waste and newly generated waste.*

The Paducah Gaseous Diffusion Plant is responsible for some waste streams generated by the United States Enrichment Corporation's operation of the Plant. In FY 2008, we plan to complete expansion of five new sections of on-site landfill for non-hazardous waste disposal; perform ongoing characterization, packaging, treatment and disposal of 50 cubic meters of newly generated waste (mixed and low-level); and complete legacy low-level waste characterization, packaging, and disposal. The continued shipment and disposal of the waste will reduce potential for release into the environment from aging containers.

Portsmouth

- *Finalize construction and startup of the uranium hexafluoride conversion facility.*

The Portsmouth DUF6 conversion facility is scheduled to begin operation in FY 2008. Like the Paducah facility, the DUF6 conversion facility will convert depleted uranium hexafluoride into a more stable form, depleted uranium oxide, suitable for reuse or disposition.

- *Store, characterize, treat, and dispose of legacy waste generated by activities at the Portsmouth Gaseous Diffusion Plant.*

We will continue to characterize, treat, and dispose of any newly generated waste; develop the management and disposal of low-level waste associated with 438 converter shells in storage with potentially classified waste; disposition of excess site equipment (vehicles, scrap, etc.) and disposition of poly bottle solutions which contain liquids with high fissile material and are required to be treated prior to disposal.

- *Continue transition activities from cold shutdown mode to decommissioning.*

In FY 2008, there is an increase in funding to support the transition of the Gaseous Diffusion Plant from a cold shutdown to decontamination and decommissioning. Activities include: conducting environmental monitoring and reporting for groundwater, surface water, sediment, biological, vegetation, and associated sample collection; performing enhanced uranium deposit mitigation measures for criticality concerns in the process buildings to eliminate near-term safety issues; and initiating soil and groundwater investigation and/or remediation underneath approximately 140 buildings.

Savannah River Site

- *Consolidate on-site Plutonium to K Area.*

In order to meet the Department's Design Basis Threat criteria, plutonium at SRS is being consolidated into one Category 1 Special Nuclear Materials Storage Facility. The receipt, storage, and disposition of these special nuclear materials at the SRS allows for de-inventory and shutdown of other DOE complex sites, while providing substantial risk reduction and significant mortgage reduction savings to the Department.

- *Ship all legacy transuranic waste to WIPP and treat low-level waste and mixed low-level waste.*

In FY 2008, SRS plans to dispose of transuranic waste previously characterized as mixed low-level waste; dispose of low-level waste and newly generated waste,

including soil, groundwater and decontamination and decommissioning wastes; dispose of mixed low-level waste inventory and newly generated waste; and dispose of hazardous waste inventories, thus reducing potential exposure to project workers.

The end-state for this project is the shipment of all legacy transuranic waste to the WIPP, the treatment of PUREX waste, and the elimination of all legacy inventories and disposition of newly generated low-level waste, mixed low-level waste, and hazardous waste.

- *Continue groundwater corrective actions across the Site.*

The SRS is working to prevent the spread of contamination into adjoining groundwater aquifers and nearby surface waters. Existing contamination in vadose zones, groundwater and surface water/sediments are currently being cleaned up, thereby reducing the risk to site workers, the public and the environment.

- *Treat, stabilize, and dispose legacy radioactive waste stored in underground storage tanks.*

The continuation of the design and construction of the Salt Waste Processing Facility will aid the Defense Waste Processing Facility in the process of safely disposing of the liquid tank wastes. The Salt Waste Processing Facility will separate the high-activity fraction from the low-activity fraction of the salt waste stored in the underground tanks at the SRS. The completion of the Salt Waste Processing Facility will support the mission of SRS in meeting its Federal Facilities Agreement commitments for waste tank disposition.

Waste Isolation Pilot Plant

- *Operate the WIPP in a safe manner to support disposal capabilities for transuranic waste.*

The WIPP in Carlsbad, New Mexico, is the nation's only mined geologic repository for the permanent disposal of defense-generated transuranic waste. All of the defense-generated transuranic waste from eligible generator sites must come to WIPP for receipt, handling, and disposal.

CONCLUSION

The FY 2008 budget request enables risk reduction to continue. Challenges lie ahead but we are focused on our objectives and our strategy. Safety, performance, cleanup, and closure underpin our actions and initiatives. We are committed to work with all

interested parties to resolve issues. We look forward to continuing to work with this subcommittee and the Congress to address your concerns and interests. Our success relies on our effective partnerships with our regulators, the communities, and our contractors to produce progress in accomplishing meaningful results for the American public.

I look forward to a continuing dialog with you and the subcommittee. This concludes my formal statement for the record. I will be pleased to answer any questions at this time.