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**Before the Subcommittee on Strategic Forces**  
**Committee on Armed Services**  
**U.S. House of Representatives**

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Good morning, Madam Chairman, Congressman Everett, and Members of the Subcommittee. I am pleased to be here today to answer your questions on the President's Fiscal Year (FY) 2009 budget request for the Department of Energy's Office of Environmental Management (EM). I want to thank the Subcommittee for your support of the EM program.

The year 2009 will mark 20 years since the EM program was first established just as the Cold War was coming to an end. While the budget we are considering today is oriented toward the future, I think it is appropriate to begin today by considering how much this program has accomplished since its creation.

At that time, nearly 50 years of nuclear weapons production and energy research had left a legacy of enormous amounts of waste and environmental contamination at more than 100 sites across the country. The extent of the risk to our citizens and communities was literally unknown, and certainly many of the processes and technologies to reduce that risk had not yet been invented.

Since then, we have closed 86 of 108 sites nationwide. The national "footprint" of the Department's nuclear complex and its accompanying risks has been drastically reduced, and eliminated altogether from many states. We have packaged and safely stored all of the nation's excess plutonium inventory. We have pioneered new technologies that have allowed us to make progress retrieving millions of gallons of tank waste, and to safely dispose tens of thousands of cubic meters of transuranic waste. In FY 2006 and FY 2007 alone, we demolished approximately 500 buildings (nuclear, radioactive, and industrial) as part of our decontamination and decommissioning (D&D) projects. And finally, we have made great strides in protecting groundwater using innovative treatment systems.

Today marks likely the final time that I will be testifying before you regarding our program's budget request. When I first assumed the position of Assistant Secretary for Environmental Management in August 2005, I set out to institute a rigorous project management system, and, above all, to continue to emphasize safety and risk reduction. I sought to refine and independently verify our project baselines – the estimates of scope, schedule and cost that guide every project – to ensure that they are realistic and executable. I will discuss our successes in this area as well as our ongoing challenges.

The FY 2009 budget request is once again built on the principle of prioritizing risk reduction across the *entire* complex for which EM is responsible, supported by our four guiding tenets of safety, performance, cleanup and closure. With 90 percent of our budget addressing mission activities at our cleanup sites, more than half of FY 2009 funding will go towards our highest-risk activities of stabilizing tank waste, nuclear materials and spent nuclear fuel; another one-quarter of the budget will be devoted to cleaning up contaminated soil, groundwater, and excess facilities, and about 14 percent going to manage wastes streams related to those cleanup activities. The remaining 10 percent covers mission activity support, including costs for program oversight provided by our federal personnel, and technology development.

Mr. Chairman, let me point out that the Administration recognizes that EM's FY 2009 budget request of \$5.528 billion is based on, and would implement, an environmental management approach under which the Department would not meet some of the milestones and obligations contained in the environmental agreements that have been negotiated over many years. It is also important to recognize that some upcoming milestones will be missed regardless of the approach that is chosen and its associated level of funding.

Moreover, some of the relevant agreements were negotiated many years ago, with incomplete knowledge by any of the parties of the technical complexity and magnitude of costs that would be involved in attempting to meet the requirements. This incomplete knowledge, coupled with other issues including contractor performance, overly optimistic planning assumptions, and emerging technical barriers, also have impeded the Department in meeting all milestones and obligations contained in the environmental compliance agreements.

In planning its environmental cleanup efforts and developing the budget for those activities, the Department seeks to focus on work that will produce the greatest environmental benefit and the largest amount of risk reduction. The Department strongly believes that setting priorities and establishing work plans in this way is the most effective use of taxpayer funds and will have the greatest benefit, at the earliest possible time, to the largest number of people.

In determining these priorities, the Department works closely with the federal and state regulators, and will seek the cooperation of those entities in helping evaluate needs and focus work on the highest environmental priorities based on current knowledge, particularly where doing so necessitates modification of cleanup milestones embodied in prior agreements with the Department.

## MANAGING OUR PRIORITIES

When I appeared before this Subcommittee two years ago, I pledged that safety would remain our first priority. All workers deserve to go home as healthy as they were when they arrived at the job in the morning. No milestone is worth any injury to our workforce. I am pleased to say that EM's safety performance continues to be outstanding. As a result of collaborative efforts by DOE and our contractors, worker injuries have been reduced by 50 percent during the past three years. Currently EM's injury rate is less than 10 percent of comparable commercial waste disposal and construction industries.

Another priority we discussed two years ago was my goal of making EM a high-performing organization by every measure. This goal has required us to look critically at every aspect of how we plan, procure, execute and manage every project under our jurisdiction, and how we align every dollar the taxpayers provide to achieving environmental cleanup goals.

On the subject of our management practices, in September 2005, Congress asked NAPA to undertake a management review of EM, including an assessment of EM's human capital. NAPA's study, conducted over a period of 18 months, was very interactive; we opened our operations to NAPA for scrutiny and in turn have embraced and implemented nearly all of NAPA's proposals.

Most of all, we were gratified that NAPA concluded in its final report issued this past December that EM, "is on a solid path to becoming a high-performing organization." We know we have much remaining to be accomplished, but we take NAPA's conclusion as a sign that we are, in fact, headed in the right direction with regard to how we function as an organization.

A budget is only as good as its planning basis. Our request is developed from our project baselines that define the scope, cost, and schedule for each project, and I have much to report to you in this area. When I assumed this position, I was concerned that the accepted baselines for many of our projects were unrealistic. The reasons for this included overly aggressive assumptions in the technical and regulatory arenas, increasing costs of materials and simple underperformance.

Since that time, our sites have undergone an independent review to verify the reasonableness of the scope, cost, and schedule for each project. This review also documented assumptions and associated risk management plans that supported baseline development. As a result, all near-term baselines up to five years have now been independently reviewed and verified, while long-term cost ranges have been determined to be reasonable. As we move forward in the FY 2009 budget process, I believe that the Subcommittee can view near-term cost assumptions associated with our projects with greater confidence than ever before.

The majority of EM sites do, in fact, include baselines with completion dates beyond 2013. Through a collaborative process with our field sites, EM is seeking to define aggressive but achievable strategies for accelerating cleanup of distinct sites or segments of work that involve multiple sites. Moreover, it is important to note that EM's site cleanup activities are managed as one integrated *national* program; the work and risks associated with each site are inherently interrelated with that at other sites. Thus, we continue to evaluate and implement cross-site risk priorities and cleanup activities.

In 2005, we set out to integrate proven project management tools into our business processes, and address our shortcomings in project management by using DOE and industry-standard business management tools. I stated to you in 2006 that our goal was for at least 90 percent of our projectized portfolio to perform on-target, or better than on-target regarding cost and schedule. I am pleased to report that we now consistently meet that goal—in excess of 90 percent of our portfolio, currently numbering more than 65 independently audited projects, consistently performs within cost and schedule targets.

As an “acquisition” organization, EM accomplishes its mission through procurement and execution of our projects. Since the contract serves as the principal agreement governing how a project is executed between DOE and the contractor, contract and project management must be seamlessly managed in parallel. To oversee this process, about 18 months ago, we implemented an organizational structure, including the creation of a Deputy Assistant Secretary for Acquisition and Project Management. This position integrates the two functions of procurement planning and project management, helping us to professionalize the procurement process so that we learn from, and improve upon, each contract experience. Moreover, it provides us with strong management oversight after the contract is awarded. We are striving to make EM nothing short of a “Best-in-Class” organization for project and contract management and engineering and technology.

The FY 2009 Technology Development and Deployment Program will be highly focused and concentrate its investments in EM high priority cleanup areas, including radioactive tank waste, soils and groundwater remediation, and deactivation and decommissioning excess facilities. Best-in-class performers, including other Federal agencies, the national laboratories, the university system, and private industry will be utilized to conduct the Technology Development and Deployment scope.

The EM program has always required a strong technology component to accomplish its mission, one that is focused on developing and deploying technologies to enhance safety, effectiveness, and efficiency. As we look ahead to our cleanup work, we face the ongoing challenge of maturing and integrating technology into first-of-a-kind solutions. An Engineering and Technology Roadmap has been developed to address this need. The Roadmap identifies the technical risks the EM program faces over the next ten years, and strategies to address the risks. EM’s validated baselines are a powerful tool that allows EM managers to identify the points at which new knowledge and technology can be efficiently inserted into EM cleanup projects to address risks.

## BUDGETING FOR OUR PRIORITIES

Before I discuss the FY 2009 budget request, allow me to draw attention to the significant cleanup progress achieved recently. We have:

- Completed stabilization and packaging for all plutonium residues, metals, and oxides and begun consolidation of all of these materials at the Savannah River Site (SRS);
- Produced for disposition more than 2,500 cans of vitrified high-level waste from highly radioactive liquid wastes;
- Completed retrieval and packaging for disposal of more than 2,100 metric tons of spent nuclear fuel from K-basins at Hanford to protect the Columbia River;
- Shipped more than 50,000 cubic meters of transuranic (TRU) waste from numerous sites to the Waste Isolation Pilot Plant (WIPP) for permanent disposal, including 25,000 out of a planned 30,000 drums from SRS;
- Disposed of nearly one million cubic meters of legacy low-level waste and mixed low-level waste;

- Eliminated 11 of 13 high-risk material access areas through material consolidation and cleanup; and
- Cleaned up the Melton Valley area at the Oak Ridge Reservation and continued decontamination and decommissioning of three gaseous diffusion buildings at Oak Ridge.

The program has made significant progress in shifting focus from risk management to risk reduction. This focus on measurable risk reduction continues to be the guiding principle behind the development of our FY 2009 budget request.

To strike the balance that allows EM to continue achieve risk reduction and pursue cleanup goals, we propose funding the following risk reduction and regulatory activities in priority order:

- Stabilizing radioactive tank waste in preparation for treatment (about 32 percent of the FY 2009 request);
- Storing, stabilizing, and safeguarding nuclear materials and spent nuclear fuel (about 18 percent of the FY 2009 request);
- Disposing of transuranic, low-level, and other solid wastes (about 14 percent of the FY 2009 request); and
- Remediating major areas of EM sites, and decontaminating and decommissioning facilities (about 26 percent of the FY 2009 request).

#### FY 2009 BUDGET REQUEST

The Department's FY 2009 budget request for the Office of Environmental Management is \$5.528 billion, of which \$5.298 billion is for defense EM activities.

For FY 2009, EM's funding priorities to best address our environmental cleanup challenges are:

- Conducting cleanup with a "Safety First" culture that integrates environment, safety and health requirements, and controls into all work activities to ensure protection to the worker, public, and the environment;
- Establishing a disposition capability for radioactive liquid tank waste and spent nuclear fuel;
- Securing and storing nuclear material in a stable, safe configuration in secure locations to protect national security;
- Transporting and disposing of transuranic and low-level wastes in a safe and cost-effective manner to reduce risk;
- Remediating soil and groundwater in a manner that will assure long-term environmental and public protection; and
- Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities while remediating the surrounding environment.

Examples of milestones and planned activities for FY 2009 by site-specific categories are:

## Idaho

- *Meet requirements in the Idaho Settlement Agreement to ship stored contact-handled and remote-handled transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP).*

The Idaho National Laboratory will continue characterizing, treating, packaging, and transporting of contact-handled and remote-handled TRU waste to WIPP.

- *Continue construction of the sodium-bearing waste treatment facility to support tank waste retrievals.*

The overall objectives of this project are to treat and dispose of sodium-bearing tank wastes, close the tank farms tanks, and perform initial tank soil remediation work. Construction and operation of the sodium-bearing waste treatment 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.

- *Complete the transfer of all EM-managed spent nuclear fuel to dry storage.*

EM will continue to promote the safe and secure receipt and dry storage of spent fuel to protect the Snake River Plain Aquifer.

## Los Alamos National Laboratory

- *Promote soil and water remediation.*

The Los Alamos National Laboratory (LANL) Soil and Water Remediation Project scope includes identification, investigation, and remediation of chemical and or radiological contamination attributable to past Laboratory operations and practices. In order to support the project scope, in FY 2009 EM plans to: complete required groundwater monitoring within eight watersheds, install four regional aquifer monitoring wells, complete four soil cleanups, including Material Disposal Area R in Technical Area-16, and continue remediation of tanks at the Material Disposal Area A in Technical Area-21.

- *Continue TRU waste shipments to WIPP.*

The Solid Waste Stabilization and Disposition Project includes the treatment, storage, and disposal of legacy TRU and mixed low-level waste generated between 1970 and 1999 at LANL. The end-state of this project is the safe disposal of legacy waste from LANL. In FY 2009, EM plans to continue characterization and certification of TRU waste for shipment to WIPP and continue services and safety-related activities to maintain the waste inventories in a safe configuration and within allowable Material-at-Risk limits established for the site.

## Oak Ridge

- *Complete final design for the Uranium-233(U-233) down-blending project and begin Building 3019 modifications.*

The U-233 inventory in Building 3019 will be down-blended as expeditiously as possible to reduce the substantial annual costs associated with safeguards and security requirements and to address nuclear criticality concerns raised by the Defense Nuclear Facilities Safety Board (DNFSB).

- *Process and ship contact-handled and remote-handled TRU waste to WIPP.*

Approximately 300 cubic meters of contact-handled TRU debris and 100 cubic meters of remote-handled TRU debris will be processed for disposal at WIPP.

- *Decontaminate and decommission (D&D) the Y-12 National Security Complex and Oak Ridge National Laboratory (ORNL).*

Remediation of the Corehole 8 plume at ORNL and of mercury contamination at Y-12 will be performed. The on-site disposal cell for receipt of D&D debris and cleanup waste will be expanded.

## Richland

- *Complete shipping of special nuclear materials from the Plutonium Finishing Plant (PFP).*

The PFP complex consists of several buildings that were used for defense production of plutonium nitrates, oxides and metal from 1950 through early 1989. As part of the PFP cleanup, Richland's goal is to complete shipments of special nuclear materials off-site to the Savannah River Site and procure additional casks to support completion of the shipping campaign by the end of FY 2009.

- *Enhance groundwater remediation at the Central Plateau and along the Columbia River.*

Over 50 years of weapons production at the Hanford site has left the groundwater contaminated by carbon tetrachloride, chromium, technetium 99, strontium, and uranium. EM is dedicated to protecting the groundwater resources at Hanford as well as the Columbia River, through deployment of innovative technologies in FY 2009 to address all of the contaminants in the vadose zone and groundwater, with supporting investigations such as installation of new wells for monitoring and characterization, and geophysical logging to provide additional subsurface information on contaminant distribution.

- *Cleanup of waste sites and facilities along the Columbia River Corridor including K-East Basin D&D.*

The K Basins project is a high priority risk reduction activity due to its close proximity to the Columbia River. To date, we have completed the removal, packaging, and transportation of approximately 2,100 metric tons of degrading spent nuclear fuel, removal of an estimated 44 cubic meters of radioactively contaminated sludge, and the basin water is now being pumped out. In FY 2009, the K-East basin will be completely demolished. The end-state of the K Basins cleanup will mean the removal of more than 55 million curies of radioactivity from near the Columbia River.

- *Retrieve suspect contact-handled and remote-handled TRU waste from burial grounds and continue to ship to WIPP.*

The Hanford Site contains thousands of containers of suspect contact-handled and remote-handled TRU waste, low-level waste, and mixed low-level waste. Activities planned in FY 2009 are to retrieve 1,100 cubic meters of suspect contact-handled and remote-handled TRU waste from the low-level burial grounds, continue certification of transuranic waste, and dispose of on-site generated low-level and mixed low-level wastes at the mixed waste disposal trenches.

#### River Protection

- *Manage the tank farms in a safe and compliant manner until closure.*

The radioactive waste stored in the Hanford tanks was produced as part of the nation's defense program and has been accumulating since 1944. To protect the Columbia River, the waste must be removed and processed to a form suitable for disposal and the tanks must be stabilized. To reach these goals, EM plans to enhance the Single-Shell Tank Integrity Program, continue to develop retrieval technologies and retrieve waste from approximately one tank per year, and continue to evaluate supplemental treatment technology, and interim pre-treatment capabilities.

- *Advance in Waste Treatment and Immobilization Plant construction.*

The Waste Treatment and Immobilization Plant (WTP) is critical to the completion of the Hanford tank waste program by providing the primary treatment capability to immobilize 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 2009, EM plans to continue construction of all of these facilities to achieve approximately 55 percent completion, while maintaining the viability of other supplemental treatment options. The end-state of this project will be the completion of the WTP hot commissioning and transfer of the facilities to an operations contractor to run the plant.



## Savannah River

- *Continue consolidation and disposition of special nuclear materials.*

The receipt, storage, and disposition of materials at the Savannah River Site allows for de-inventory and shutdown of other DOE complex sites, providing substantial risk reduction and significant mortgage reduction savings to the Department. In FY 2009, the Savannah River Site will complete the receipt of surplus plutonium from the Hanford Site, Los Alamos National Laboratory, and Lawrence Livermore National Laboratory. Also in FY 2009, EM plans to operate H-Canyon/HB-Line to disposition special nuclear materials and begin processing of Savannah River Site's spent nuclear fuel in H-Canyon.

- *Reduce radioactive liquid waste.*

The mission of the tank waste program at Savannah River is to safely and efficiently treat, stabilize, and dispose of approximately 37 million gallons of legacy radioactive waste currently stored in 49 underground storage tanks. In FY 2009, planned EM activities include: continue operation of Actinide Removal Project, Modular Caustic-Side Solvent Extraction Unit, and the Defense Waste Processing Facility, continue the construction of the Salt Waste Processing Facility; and prepare sludge batches in support of continued high-level waste vitrification. Activities are planned to free up additional tank space, such as treatment of organic waste in the 1.3 million gallon Tank 48 to return the tank to useful service.

## Waste Isolation Pilot Plant

- *Continue safe shipment, receipt, and disposal of contact-handled and remote-handled TRU waste.*

WIPP in Carlsbad, New Mexico, is the nation's only mined geologic repository for the permanent disposal of defense-generated TRU waste. In FY 2009, the budget request supports up to 21 contact-handled TRU and up to 5 remote-handled TRU shipments per week from across the DOE complex.

## CONCLUSION

Mr. Chairman, I am proud of the progress the EM program has made in recent years, both in terms of meeting the nation's cleanup priorities, and in building the foundation for future efforts. I respectfully submit EM's FY 2009 budget request and am pleased to answer your questions.