

Advance Policy Questions for Dr. Inés Triay
Nominee to be Assistant Secretary of Energy for Environmental Management

Duties

What is your understanding of the duties and functions of the Assistant Secretary of Energy for Environmental Management?

The duties and functions of the Assistant Secretary of Environmental Management (EM) include providing leadership, management, and oversight of cleanup activities at Department of Energy (DOE or Department) sites across the country. EM is responsible for the risk reduction and cleanup of the environmental legacy of the U.S. nuclear weapons production, and is the largest and most technically complex environmental cleanup program in the world. The Assistant Secretary directs the EM program and establishes the vision of the environmental cleanup; is externally focused and responsible for representing the program to Congress, the tribal nations, the States, regulatory, oversight, and advisory organizations, the media, and other stakeholders. The Assistant Secretary is the chief executive of the Environmental Management program, and in that capacity is responsible for assuring that the corporate strategies of the Department for the environmental cleanup are effectively implemented by the federal and contractor workforce. The Assistant Secretary is also responsible for assuring that the projects in the EM portfolio are delivered on schedule and within cost; the overall program is managed in an efficient and effective manner; and all EM activities are conducted in a safe, secure, and compliant manner.

Assuming you are confirmed, what duties and functions do you expect that Secretary Chu would prescribe for you?

I expect to be asked to carry out those duties and functions outlined above.

Qualifications

What qualifications and experience do you have that would qualify you to perform the duties of the Assistant Secretary of Energy for Environmental Management?

I have a thorough understanding of the complexity and magnitude of the task that we face in the Environmental Management (EM) program. My formal training is as a physical chemist with a doctorate from the University of Miami, Florida. I worked at Los Alamos National Laboratory for 14 years in progressively more responsible positions, from Postdoctoral Researcher to Group Leader in the Isotope and Nuclear Chemistry Division, to Acting Deputy Director of the Chemical Science and Technology Division. While at Los Alamos, I focused on the study of the same nuclear isotopes we are concerned with in the cleanup program today.

In April 1999, former Energy Secretary Bill Richardson named me as Manager of the Department's Carlsbad Field Office in New Mexico. There, I was responsible for the Waste Isolation Pilot Plant (WIPP), the nation's only deep geologic repository for the disposal of transuranic waste. I am most proud of the fact that during my tenure, I led the engineering of the transuranic waste complex from its inception of one or two shipments to WIPP per week, to full operations at 25 shipments per week.

In January of 2004, I was named the Deputy Chief Operating Officer for Environmental Management, and in May 2005, I assumed the position of Chief Operating Officer. Under my leadership in these positions, the EM program completed the cleanup of the former Rocky Flats nuclear weapons site in Colorado and the former Fernald uranium processing plant in Ohio. I played a leadership role in the commencement of remote-handled transuranic waste disposal operations at the WIPP in New Mexico.

In October 2007, I was named Principal Deputy Assistant Secretary for the EM program, and since November 2008, I have been the Acting Assistant Secretary for Environmental Management. To summarize, I have extensive experience as a field and laboratory researcher, as a contractor operations manager, as a DOE field operations manager, and as a senior member of the EM headquarters team. I have worked diligently with our stakeholders and regulators at the local and at the national level, and I have had the opportunity to work closely with members of Congress and their staffs as well. I have witnessed every function that we perform in the program on a first hand basis and I have dedicated my life to the successful cleanup of the environmental legacy of the Cold War nuclear production.

Major Challenges

In your view, what are the major challenges confronting the Assistant Secretary of Energy for Environmental Management and the Environmental Management program?

The major challenges facing the new Assistant Secretary and the Environmental Management (EM) program are:

- 1) Ensuring the completion of the EM projects on schedule and within costs, with emphasis on our first-of-a-kind construction projects to address highly-radioactive waste in underground tanks; and
- 2) Delivering better value to the American taxpayer through decreasing the projected life-cycle cost of conducting the EM cleanup.

Assuming you are confirmed, what plans do you have for addressing these challenges?

The Environmental Management (EM) program must strengthen the federal and contractor project management capability and improve the skill set of the project management teams. Aggressive efforts are underway in EM, in partnership with the U.S. Army Corps of Engineers, to identify and implement the necessary enhancements in personnel capabilities and systems to transform EM into a “best-in-class” project management organization. EM is also developing and implementing processes and procedures for quality assurance and for identifying and managing project risks.

If confirmed, under my leadership, EM will identify and minimize the programmatic risks associated with start of construction during the early stages of the design phase. EM is incorporating technology readiness assessment and maturity planning into construction and cleanup projects at all stages, along with DOE Standard 1189, *Integration of Safety into the Design Process*, which requires safety to be integrated early in the design phases of projects.

In addition, if confirmed, I intend to look within the Department to the Office of Science, which has had an excellent record of completing their construction projects on time and within cost. The Secretary has made their lead project management expert available to advise us, and we have developed a review process modeled after the DOE Office of Science project reviews, tailored for the EM projects. These construction project reviews determine if project performance is consistent with agreed upon mission and project requirements; has reached the appropriate level of maturity; and can be completed successfully as planned, budgeted and scheduled. These reviews are scheduled approximately every six months, and are intended to reduce the risk of project failure by identifying existing and potential problems in a timely manner so that adequate resolution is possible.

These independent reviews will examine in detail all aspects of a construction project, including: project management; technology, design, and engineering; safety; environmental compliance; security; and quality assurance. The process will rely on expert knowledge and experience of world-class engineers, scientists, and managers sourced from federal staff, DOE contractors, engineering firms, national laboratories, and the academic community.

The General Accountability Office (GAO) continues to include DOE contract and project management on its list of government programs at high risk, the GAO believes “that DOE as a whole has met three of the five criteria necessary for removal from the high risk list.” The two criteria that remain before we can be removed entirely from the list require having the capacity (people and resources) to resolve the problems, as well as monitoring and independently validating the effectiveness and sustainability of corrective measures. I am committed to completing the actions in DOE’s Corrective Action Plan, which will address these

two criteria. If I am confirmed, my personal goal will be to see that we are removed from the GAO high-risk list during my tenure.

We have taken a number of other specific steps to ensure superior project performance:

- Initiated a thorough review of the contract type and fee structure for all construction projects in order to ensure that the contract type and fee structure will result in maximizing improved performance in the EM projects.
- Required the parent companies carrying out the major EM projects (including all construction projects) to justify and improve the composition of the contractor management teams in charge of executing the EM projects.
- Increased the EM on-board count during the past two years by approximately 300 federal employees (from 1370 to 1680) in the areas of project and contract management, safety, engineering, and quality assurance. The EM program is poised to increase its federal staff to 1800 to further strengthen our oversight capability. While EM hires federal personnel, continued use of staff augmentation through the U.S. Army Corps of Engineers will be employed to fill the gaps.
- Established an Office of Quality Assurance at Headquarters, and required federal and contractor quality assurance professionals at every field site. This is needed to assure quality is incorporated into EM projects, thus avoiding cost increases and schedule delays. Federal quality assurance resources now account for almost six percent of the total number of EM employees, which is within the industry range of four to seven percent.
- Continued training sessions and supplier workshops attended by hundreds of large and small businesses alike, in order to increase the cadre of suppliers qualified to the high standards of nuclear quality assurance.
- Implemented the Department of Defense and National Aeronautics and Space Administration Technology Readiness Levels to judge the relative maturity of new technologies prior to approving full-scale development.
- Established a cost-estimating group at the EM Consolidated Business Center, in order to improve the quality of the EM program's independent government estimates for construction and cleanup projects.
- Initiated the process of implementing a project management software tool to further increase transparency of the health of EM projects not only to EM management but also to the DOE's Office of Engineering and Construction Management.
- Increased the frequency of the EM headquarters and field project management reviews from quarterly to monthly to increase management attention and accountability at all levels. These reviews are attended regularly by DOE's Office of Engineering and Construction Management and often times by the Office of Management and Budget.

We will address life-cycle costs by continuing our strategic planning efforts to identify and evaluate alternative approaches for radioactive waste in tanks, spent

nuclear fuel, and special nuclear materials. Strategic planning efforts are underway in these areas that have the highest overall life-cycle costs of the program. We are looking for both incremental improvements to optimize waste operations, and transformational approaches, which could involve alternate technologies and other approaches.

Coincident with these planning efforts, we are also proposing to focus additional resources towards technology development, particularly for tank waste and groundwater remediation. We are looking to make investments in new technologies and computer modeling.

In summary, if confirmed, I will assure that EM uses science and technology, robust project management, and our intergovernmental partnerships to reduce the cost and schedule of the program.

Management Issues

The Assistant Secretary for Environmental Management is responsible for cleanup activities occurring at Department of Energy (DOE) sites across the country.

What are your views on the roles and responsibilities of field managers relative to those of Environmental Management (EM) headquarters managers?

The roles and responsibilities of field managers include the management and direction of the safe, secure, compliant, and effective execution of the Environmental Management (EM) projects. The field managers and the field staff manage the contracts and oversee the contractors' performance in order to deliver the EM projects on time and within cost. The roles and responsibilities of EM headquarters managers include overseeing the performance of the field sites as well as policy development, budget formulation, and addressing the field offices' needs in order to accomplish the objectives of the EM mission.

What is your view of EM's organizational structure? Is there a well-delineated and consistent chain of command and reporting structure from the field staff to headquarters staff, from the contractors to DOE officials, and from the Office of Environmental Management to the Secretary of Energy and other DOE officials?

I believe that our current chain of command and reporting structure are adequate to perform the Environmental Management (EM) program mission. Improving the efficiency of EM is always of critical importance. The National Academy of Public Administration (NAPA) completed a detailed review of several aspects of the EM program between April 2006 and December 2007. One area that was carefully analyzed was organizational efficiency. NAPA provided 20

recommendations in this area and EM implemented 18 of them. However the former Assistant Secretary for EM deferred implementation of the remaining two: establishment of a Chief Business Officer position and re-alignment of two Deputy Assistant Secretary offices between the Chief Business Office and the Chief Operations Office. I believe that these recommendations have merit and I will carefully review those recommendations to identify improved organizational efficiency.

Do the field offices have enough autonomy and flexibility to work with the contractors at the sites to get the cleanup finished in a safe and efficient manner?

It is my philosophy to delegate as much authority as possible and appropriate to the field offices and their managers. If the field managers had more authority than they do now, the EM program might be more efficient.

In your opinion, should the field offices have more autonomy than they currently have?

Yes. The additional authority would come with the responsibility to deliver excellent performance. Performance is measured by the results obtained, and the manner in which they are achieved. Therefore, we will be seeking to align authority with performance at each site to deliver projects on time and within cost.

The Environmental Management program has used a variety of contracting methods, including management and operating contracts, cost plus award fee contracts, cost plus incentive fee contracts, performance-based, fixed-priced contracts, and closure contracts, among others.

What is your view of the utility and appropriate role of these, or other, contracting methods, and what principles do you believe DOE should follow when entering into EM contracts in the future?

Each contracting method has a “sweet-spot” for its application. During the acquisition planning phase, there is continuing improvement to appropriately match the type of work and program requirements with the contract approach. For the following types of EM work, the successful contract approaches generally are:

1) Cleanup Work

- For well defined and repetitious activities - fixed unit rate contracts are optimal (for instance, mill tailing relocations at past closure sites such as Grand Junction and Monticello);
- For work with relatively high confidence in the scope definition, clear end-state, most regulatory decisions have been made, stable and predictable funding, and it will take five to seven years to complete - closure or

completion contracts, which are typically cost plus incentive fee contracts are optimal (for instance, Rocky Flats, Mound and Fernald);

- For work with relatively high confidence in the scope definition, discrete portions with clear end-states, regulatory decisions have been made, fluctuating funding, and 10 years or less to complete cleanup - the optimal contract type is cost plus incentive fee (for instance, Hanford River Corridor and Idaho Cleanup);
- For work with various levels of scope definition, discrete portions have clear end-states and regulatory decisions made, fluctuating funding and more than 10 years to complete - the successful contracts are cost plus award fee contracts with performance-based incentives (for instance, main site cleanup contracts, such as Hanford, Oak Ridge; operations of individual processing facilities, such as Idaho Advanced Mixed Waste Treatment and Oak Ridge Transuranic Waste facilities); and
- For work with continual operations of nuclear facilities and disposal facilities for more than 10 years - the successful contracts are management and operating contracts (Savannah River Site and Carlsbad).

2) Construction Projects

- For storage of high-level waste or spent nuclear fuel canisters, storage approach used in previous applications, minimal technology issues, typically \$100-200M or less, and three years or less to completion - the optimal contract type is fixed price (for instance, Savannah River Site Glass Storage Facility, Hanford Spent Nuclear Fuel Storage Facility);
- For packaging or disposal of low-level or transuranic waste, well understood technology, technology used in previous applications, typically \$100-200M but could be up to \$500M, and four to seven years to completion - the optimal contracts are fixed unit rate contracts (Oak Ridge Disposal Cell, Idaho Advanced Mixed Waste Treatment Project, WIPP Transportation, Oak Ridge Transuranic Waste Treatment Project); and
- For treating and stabilizing high-level waste or complex low-level waste, first of a kind technology, significant technical issues, nuclear facilities, \$500M and greater, five years and greater to completion - the successful contracts are cost plus award fee contracts with multiple incentives, such as performance-based incentives, award fee, operational fee, and schedule fee.

Mission

DOE has offered changing views, over the lifetime of the EM program, as to whether the program should focus on cleaning up the sites within its purview as of a date certain or whether the program should have an ongoing mission of cleaning up all surplus DOE facilities, as the facilities become excess, over time.

Do you believe there is a point at which the EM program should stop taking surplus buildings, facilities, or waste streams from other components of the

DOE into the EM program for decommissioning, decontamination, and disposal?

No. I don't believe that the Environmental Management (EM) program should cease accepting surplus facilities from other DOE programs, but continue to accept them. From a technical standpoint, placing DOE's excess facilities under EM makes business sense because EM possesses both the experience and expertise to move these assets to ultimate disposition or demolition, more so than other DOE programs. There is a consensus within DOE that placing all surplus assets under the purview of one program leads to management efficiencies and produces long-term cost savings. Finally, by continuing the transfer of surplus assets to EM, the decontamination and demolition of excess facilities will result in the reduction of the legacy footprint. This allows other DOE programs to expand their current missions or launch important new ones, such as those in science, energy, and national security, or use the lands for beneficial reuse.

If confirmed, what requirements would you place on the other DOE programs before you would take additional buildings, facilities or waste into the EM program?

The Environmental Management (EM) program does have existing stringent requirements it applies to surplus assets, prior to accepting them from other DOE programs. These established criteria, based on formal DOE Orders and technical policies for facilities and wastes, are applied to each individual asset nominated for transfer to EM. Furthermore, in concert with the criteria, EM implements a rigorous in-person assessment process, in which EM technical experts walk down and inspect nominated assets to determine if they meet the transfer criteria. This process ensures that any asset deemed surplus by other DOE programs is truly "transfer ready," and complies with EM's standards for acceptance.

Do you believe it is an appropriate policy for the EM program to "go out of business" at some point and leave the remainder of newly generated waste as the responsibility of existing DOE programs? If not, in your view, how should newly generated wastes be managed and which program (EM or the program generating the waste) should budget for these activities?

I believe that it is appropriate for the generating programs to be responsible for and budget for newly-generated waste. Currently, the Department's policy is that Environmental Management (EM) is responsible for the final disposition of legacy waste, while requiring landlord programs to manage newly-generated waste at their sites. However, in specific instances when EM is recognized as having unique experience and expertise with certain waste types such as transuranic waste, exceptions may be necessary on a case-by-case basis. Newly-generated waste responsibility was transferred to landlord programs in order to encourage waste minimization and proper "ownership" for wastes. I believe this is a good concept.

Do you believe that making the program responsible for newly generated waste would incentivize the program to minimize the amount of waste created or, conversely, would it result in the program storing waste, perhaps indefinitely?

Environmental Management and the rest of the Department comply with DOE Order 435.1, *Radioactive Waste Management*, which defines the requirements for the management and minimization of radioactive waste within DOE. The Order provides specific requirements for the management and timely disposition of each radioactive waste type, such as high-level waste, transuranic waste, low-level waste, and mixed wastes. The Order also defines the responsibilities of each headquarters element, particularly those programs that generate these waste types as part of their operations mission.

In drafting the National Defense Authorization Act for Fiscal Year 2006, this committee did not adopt the proposal in the President's budget request to transfer certain activities from the EM program into the National Nuclear Security Administration (NNSA).

To your knowledge, are there any plans to make a similar proposal in the FY 2010 budget request?

There are no plans to make a similar proposal in the FY 2010 budget request.

The EM program demonstrated that accelerating cleanup at specific sites could result in a more cost effective approach to cleanup over the long term. After the Rocky Flats and the Fernald Sites were completed, the accelerated approach was abandoned.

If confirmed would you look at renewing an accelerated approach for specific sites if significant long term cost savings could be achieved?

Over the past year and a half, the Environmental Management (EM) program has conducted strategic planning analysis, which indicates that substantial benefit in terms of life cycle cost savings and cleanup completion can be achieved with additional investments in the areas of decontamination and decommissioning of facilities, remediation of contaminated soils and groundwater, and disposition of solid waste (low-level and transuranic) to achieve footprint reduction. These results were discussed in the EM progress report that the Fiscal Year 2008 National Defense Authorization Act required, and was submitted to Congress in January 2009.

We are renewing the accelerated approach with implementation of the footprint reduction initiative with the \$6 billion dollars from the American Recovery and Reinvestment Act of 2009 (Recovery Act).

Do you believe this promise of accelerated cleanup has yet been realized, and if not, why not?

We are renewing the accelerated approach with the Recovery Act funding. Our strategic planning analysis was based on achieving a 90 percent footprint reduction by 2015. The Recovery Act funding will allow 40-50 percent footprint reduction by 2011, and will go a long way in achieving this goal.

End States

A previous Assistant Secretary sought to develop “end states” documents for each major site in the EM program depicting the residual contamination levels remaining at each site after the completion of cleanup.

What is the status of these “end states” for each major site?

The end-state documents were intended as a tool to help focus discussions with the Department’s regulators and stakeholders on the likely future land uses of contaminated lands as a means to facilitate the early identification of remedial action objectives and appropriate response actions. The Department’s field office personnel, the U.S. Environmental Protection Agency, and state regulators have incorporated these end-state documents in their discussions and negotiations.

If confirmed, would you continue efforts to reach an agreed upon “end state” with the state and federal environmental regulators at each site, or in your view is there a different way to approach the issue of what is clean enough?

The Department will continue to work with our regulators on identifying and attaining, whenever possible, those land uses and end states we agree represent both a desirable and viable outcome. We are doing this, and will continue to do so, in accordance with the applicable federal and state requirements governing our cleanup activities. This process ultimately determines the scope of the cleanup and viable future land uses, and therefore is critical to our mission.

Technology Development

Do you believe that the EM program has conducted sufficient technology development so that a treatment and disposition pathway exists for all identified waste streams under the program?

The treatment and disposal of DOE low-level and mixed low-level waste is not dependent on additional technology development. While there may be small volumes of challenging waste streams identified through future cleanup activities, it is expected that existing technologies will enable treatment and disposal of the remaining waste.

Currently, we do not foresee any technology development necessary to support disposal of transuranic wastes. While there are some innovative packaging and characterization techniques that still require regulatory approval prior to implementation, the research and development of these techniques have been completed, and is now being demonstrated through the regulatory process.

In the area of highly-radioactive waste in underground tanks retrieval and processing, there continues to be technology development needs, and they have been identified and planned within the Environmental Management program's Engineering and Technology Roadmap.

If any orphan waste streams – those for which there is no identified disposition pathway – exist within the EM program, what technology development or other efforts would you undertake, if confirmed, to address them?

The orphan waste streams challenges that currently exist within Environmental Management (EM) are programmatic in nature. For example, EM has a small quantity of low-level and transuranic waste (greater-than-Class C low-level waste), which does not meet the current waste acceptance criteria for existing disposal facilities. EM needs to complete the process for siting a facility for greater-than-Class C low-level waste, which could accommodate those particular wastes.

What, in your view, are the continuing requirements for developing and fielding new technologies, and what are the highest priorities?

Continuing technology development and deployment is a key element of the Environmental Management (EM) program's strategy to reduce the technical risk and uncertainty of EM projects. The highest priority for EM is to develop new technologies for tank waste systems and for groundwater remediation.

Tank waste is by far the Department of Energy's most significant environmental, safety, and health risk. EM plans to retrieve this highly-radioactive waste from storage tanks and convert it into stable waste forms (such as glass) using treatment facilities. Because of the unique and hazardous nature of this radioactive waste, new technologies are needed to:

- 1) Retrieve waste to the maximum extent possible in an efficient manner;
- 2) Improve glass formulations that can increase the amount of waste in each glass canister, which will reduce operating costs;
- 3) Improve glass melters which will increase production throughput and decrease costs; and

- 4) Improve processes to remove non-radioactive components, such as aluminum, from the tank waste in order to increase glass waste loading and production throughput.

Innovative groundwater remediation technologies are also needed to:

- 1) Treat subsurface contamination through bioremediation or reactive sorptive barriers that can be more effective and efficient than current methods, and
- 2) More effectively predict contaminant migration resulting in better remediation methods.

The National Academy of Sciences supports a significant and ongoing research and development program, as delineated in the EM program's Engineering and Technology Roadmap to address these unique technical challenges.

Workforce Restructuring

If confirmed, your duties could involve the review and approval of workforce restructuring plans at sites under the EM program.

Please describe your general approach and philosophy in reviewing workforce restructuring plans.

The Environmental Management program complies with DOE Order 350.1, *Contractor Human Resource Management Programs*, as well as all other applicable requirements, and we direct our contractors to do the same as they plan and execute workforce restructuring actions.

Given the nature of their work, cleanup workers are fundamentally in a position of “working themselves out of a job.”

How do you believe this particular challenge is best handled from both a corporate perspective and as a manager of these workers?

At most of our remaining sites, the cleanup mission has many more years until completion. To manage work effectively at our sites, there is a broad life-cycle to perform characterization, plan, decontaminate and decommission, and then beneficially re-use. We need workers with different skills and specializations at each phase of that life-cycle. The specialized skills and certifications our workers acquire doing Environmental Management work is highly marketable.

The Department of Energy resources, in partnership with tribal nations, the States, industry and other regional stakeholders, can be leveraged for beneficial reuse at our sites. As part of DOE's footprint reduction effort, designated tracts of land would be transferred to other government programs, communities, or the private

sector for rapid development of large scale facilities for any number of uses. The outcomes of transforming the Department's sites for beneficial reuse could include: 1) industrial uses sited on "brownfields" with existing infrastructure and a trained workforce; 2) transition of the current work force and recruit the future workforce to take advantage of the wealth of technical knowledge and operational experience; and 3) potential to create new jobs for the long term.

Waste Incidental to Reprocessing (WIR)

One of the biggest challenges of Environmental Management program is emptying the large tanks of highly radioactive waste that exist at defense nuclear sites in South Carolina, Washington, and Idaho. In the Fiscal Year 2005 National Defense Authorization Act Congress granted DOE, in consultation with the Nuclear Regulatory Commission (NRC), the authority to determine that portions of this waste are not high level radioactive waste and thus DOE may leave residue that meets the requirements of the provision at the bottom of the tanks in South Carolina and Idaho after these tanks are otherwise emptied.

How is DOE using this new authority?

The Department has used this authority successfully at both the Savannah River Site and at the Idaho National Laboratory. At Savannah River Site, we use that authority to dispose of the low-activity fraction of tank waste in on-site "saltstone" vaults, which is facilitating the emptying of the highly-radioactive waste tanks. Savannah River Site is in the process of removing residuals from several tanks, and is working closely with Nuclear Regulatory Commission (NRC), the State, and the U.S. Environmental Protection Agency, using the 2005 National Defense Authorization Act (NDAA) authority, to ultimately close these and the other highly-radioactive waste tanks. At Idaho, in November 2006, the former Secretary of Energy determined that the residual wastes in the 15 tanks were no longer high-level waste, and 11 of those tanks were filled with cement. In undertaking these actions, the Department consulted with the NRC, in accordance with the 2005 NDAA authority, and will continue to do so in the future.

If confirmed will you ensure that the NRC has full access to documents and information at these sites that the NRC determines is needed to allow them to conduct their responsibilities?

Yes. The Nuclear Regulatory Commission (NRC) has had, and will continue to have full access to documents and information at these sites that the NRC determines is needed to allow them to conduct their responsibilities.

Waste Disposal

Completion of cleanup at a number of EM sites depends on the timely shipment of quantities of transuranic waste to the Waste Isolation Pilot Plant (WIPP) in New Mexico for disposal. In some cases, DOE is under regulatory deadlines for completing shipments to WIPP.

What regulatory deadlines do the EM program currently face related to WIPP shipments and what is the current progress against those deadlines?

At the Idaho National Laboratory, the Idaho Settlement Agreement (Settlement Agreement) requires DOE to maintain a running average of 2,000 m³ of transuranic (TRU) waste shipped offsite yearly. DOE is well ahead of this milestone. The Settlement Agreement also includes milestones for completing shipment of 65,000 m³ TRU (target completion date of 12/31/2015, but no later than 12/31/2018). DOE is on track to complete this milestone ahead of schedule. The Idaho Site Treatment Plan requires a more aggressive shipping rate of 4,500 m³ of TRU per year. DOE continues to ship TRU waste from Idaho at a rate that exceeds this requirement.

At Oak Ridge, the Site Treatment Plan defines specific volume goals for contact handled (CH) and remote handled (RH) TRU waste each year. While DOE has met its CH milestones to date and met the first RH milestone for start of RH shipments, DOE recently requested an extension to the 4/30/2009 milestone to have processed 35 m³ of RH TRU waste. This extension was required due to unexpected technical issues encountered during waste processing (water was found to be present in many of the TRU canisters retrieved for processing and shipping). DOE anticipates that these issues will be addressed and future milestones will be met.

At Nevada, the Site Treatment Plan requires the completion of the legacy TRU project by the end of April 2009. DOE is on track to meet this milestone. Three shipments remain to be completed and are scheduled to occur before 4/30/2009.

At Los Alamos, the Consent Order requires the cleanup of Area G to be completed by the end of 2015. While there are no specific deadlines related to shipment of TRU, the TRU within Area G must be processed and shipped offsite in time to support Area G closure in 2015.

Regarding Hanford, DOE and the regulators have reached agreement on revised milestones for TRU waste in the Tri-Party Agreement. These milestone revisions are currently out for public review.

Are you aware of any issues that jeopardize DOE's ability to meet these deadlines? If so, what is DOE doing to address these issues?

We are not aware of any specific issues at this time. However, given that much of the transuranic waste has been buried for many decades at some of our sites, it is likely that DOE may encounter challenges regarding the condition of the waste as it is retrieved. DOE has carefully developed a detailed waste processing and characterization strategy and is working closely with the regulators.

What, if any, additional permits or permit modifications are needed for WIPP in order to meet these deadlines?

There are no additional permits or permit changes needed to support these milestones.

Waste Treatment Plant

Maintaining the steady state funding commitment, not changing requirements, and not changing the design of the facility, are all necessary actions to ensure that the Waste Treatment Plant (WTP) is completed within its current baseline cost and schedule.

If confirmed would you plan to make any changes to WTP funding, requirements, or design?

The stable funding level of \$690 million a year has provided the Waste Treatment Plant project with stability and predictability, which affords the contractor the ability to plan the work, make commitments to subcontractors and suppliers and minimize turnover of the workforce. The requirements are appropriate to build a functioning plant, although there are still certain opportunities to refine the requirements for a more cost effective plant. There are several technical issues, which are on schedule to be resolved by the end of December 2009, which should permit the finalizing of the design.

Enduring sites

Cleanup under the EM program occurs not only at closure sites, but at DOE national laboratories and other sites with ongoing missions. These locations are sometimes distinguished from sites that will be closed by use of the term “enduring sites.”

Does the EM program approach cleanup differently at closure sites than at enduring sites?

No. Cleanup work across the entire complex is conducted in accordance with the applicable requirements from federal environmental laws, primarily the Comprehensive Environmental Response, Compensation, and Liability Act and the Resource Conservation and Recovery Act. The Department consistently applies these requirements in accordance with site-specific conditions, and has

entered into agreements with the States in which cleanup sites are located and the U.S. Environmental Protection Agency to come into compliance with these laws.

How should the EM program best manage the interfaces between its cleanup operations and other ongoing missions at the enduring sites?

The Environmental Management program works closely with senior managers and staff of the landlord programs and those programs' sites in planning for and executing the cleanup. This includes their active involvement in developing scope, cost, and schedule baselines, formulating budgets, and overseeing execution. With these close interactions, the Department can develop an overall approach that appropriately prioritizes cleanup in support of and recognizing the enduring sites' ongoing and future missions.

Does the EM program prioritize work differently at enduring sites, and if so, in what way?

In planning its program, Environmental Management (EM) develops an integrated priority list for all its cleanup activities across the entire DOE complex at both closure and enduring sites based on risk categories. These categories, in descending order of risk, are: 1) highly-radioactive liquid waste in underground tanks; 2) nuclear materials (e.g., uranium and plutonium) and spent nuclear fuel; 3) transuranic and low-level radioactive waste; 4) soil and groundwater remediation; and 5) decontamination and decommissioning of surplus contaminated facilities. The EM program overlays site-specific regulatory compliance milestones and the need to support ongoing and future missions at enduring sites to the overall program priorities in order to prioritize its work at each site.

Design Basis Threat

Some of the DOE sites including EM sites will not achieve compliance with the current design basis threat and do not plan to achieve compliance.

Given the seriousness of the need to secure nuclear materials, both abroad and at home, do you believe that this is a sufficiently rapid response to the threats currently outlined by the intelligence community and against which DOE has agreed it must defend at its nuclear sites?

The Environmental Management program is in compliance with the Department's 2005 Design Basis Threat (DBT) policy and is transitioning to the requirements of the Graded Safeguards Protection (GSP) policy issued in August 2008. This policy provides a robust framework considering the broad spectrum of threats.

If confirmed, what actions would you undertake to consolidate and more rapidly secure any special nuclear material existing within the EM program?

The Environmental Management program has been aggressively consolidating special nuclear materials and will continue to do so:

- At Savannah River Site, surplus plutonium has been consolidated from Rocky Flats, and will continue to be consolidated from Hanford and the National Nuclear Security Administration sites, such as Lawrence Livermore and Los Alamos National Laboratory.
- At Oak Ridge and Portsmouth, surplus uranium has been consolidated from Rocky Flats and Fernald.
- At Savannah River Site and Idaho, spent nuclear fuel has been consolidated from West Valley, and will continue to be consolidated from U.S. university research reactors, and foreign research reactors.
- At Hanford, on-site spent nuclear fuel has been consolidated into a single location.

Do you agree that, even with a primary focus on accelerating cleanup, it is still an essential responsibility of the EM program to secure these materials against the threats existing now?

Yes. The Environmental Management (EM) program is committed to protect its special nuclear materials against the prevailing threat level while expediting the cleanup progress. EM has successfully reduced the number of facilities and sites that possess special nuclear materials from 13 to 2, and will continue to protect these facilities in accordance with DOE policy.

Yucca Mountain

In the EM five-year plan published in early 2007, a number of program-specific uncertainties that could impact the overall cleanup scope, schedule, and cost are identified. Among those uncertainties identified is the possibility of a delay in the availability of Yucca Mountain. EM has indicated that a delay in Yucca Mountain would lead to the delay in site completion and increase storage costs for high-level waste and spent nuclear fuel.

What increases in storage costs for high-level waste and spent nuclear fuel and in the length of the delay can be expected if Yucca Mountain is closed?

Over the period of the next two decades, the delay in the establishment of a permanent high-level waste repository will in no way impact the current scope, schedule and cost for treatment and storage of defense spent nuclear fuel and high-level waste. The Secretary of Energy is in the process of establishing a Blue Ribbon Commission/Panel to provide recommendations to the Department on spent nuclear fuel and high-level waste. The panel needs to provide those recommendations and the Department needs to determine the path forward for that waste prior to being able to assess the length of potential delays or additional

storage costs. The Environmental Management (EM) program manages its life cycle cost in a detailed, rigorous manner and, therefore, will be able to ascertain any impacts of the selected path forward. EM will work diligently with the Committee to provide any required information on the impacts to EM's life cycle cost.

Congressional Oversight

In order to exercise its legislative and oversight responsibilities, it is important that this committee and other appropriate committees of the Congress are able to receive testimony, briefings, and other communications of information.

Do you agree, if confirmed for this high position, to appear before this committee and other appropriate committees of Congress?

Yes. I agree that, if I am confirmed as Assistant Secretary for Environmental Management, I will appear before this Committee and other appropriate Committees of Congress.

Do you agree, if confirmed, to appear before this committee, or designated members of this committee, and provide information, subject to appropriate and necessary security protection, with respect to your responsibilities as the Assistant Secretary of Energy for Environmental Management?

Yes. I agree that if I am confirmed, I will appear before this Committee or to a designated member of this Committee, and provide information subject to appropriate and necessary security protection with respect to my responsibilities as Assistant Secretary of Environmental Management.

Do you agree to ensure that testimony, briefings, and other communications of information are provided to this committee and its staff and other appropriate committees?

Yes. If confirmed, I agree to ensure that testimony, briefings, and other communications of information will be provided to this Committee and its staff and other appropriate Committees.

Do you agree to provide documents, including copies of electronic forms of communication, in a timely manner when requested by a duly constituted Committee, or to consult with the Committee regarding the basis for any good faith delay or denial in providing such documents?

Yes. If confirmed, I agree to provide documents, including copies of electronic forms of communication, in a timely manner when requested by a duly constituted Committee, or consult with the Committee regarding the basis for any good faith delay or denial in providing such documents.