# ENVIRONMENTAL MANAGEMENT SITE-SPECIFIC ADVISORY BOARD to the U.S. DEPARTMENT OF ENERGY

# **PUBLIC MEETING MINUTES**

U.S. Department of Energy 1000 Independence Avenue, SW – Washington, D.C. 20585

**April 25, 2013** 

#### LIST OF ACRONYMS

AB – Advisory Board

ANL - Argonne National Laboratory

ARP – Accelerator Retrieval Project

BNL - Brookhaven National Laboratory

**BRC** - Blue Ribbon Commission

CAB – Citizens Advisory Board

D&D - Decontamination &

Decommissioning

DDFO – Deputy Designated Federal Officer

DOE – Department of Energy

DUF6 - Depleted Uranium Hexafluoride

DWPF – Defense Waste Processing Facility

EIS – Environmental Impact Statement

EM – DOE Office of Environmental

Management

EM SSAB – DOE Office of Environmental

Management Site-Specific Advisory Board

EPA – U.S. Environmental Protection

Agency

FY - Fiscal Year

GAO – U.S. General Accountability Office

GTCC - Greater-Than-Class-C

HAB – Hanford Advisory Board

Hanford – (DOE) Hanford Site

HLW - High-Level Waste

HO – DOE Headquarters Office

INL – Idaho National Laboratory

INL CAB – Idaho National Laboratory Site

**EM Citizens Advisory Board** 

IWTU - Integrated Waste Treatment Unit

LANL – Los Alamos National Laboratory

LLW - Low-Level Waste

MLLW – Mixed Low-Level Waste

N2S2 - Nevada National Security Site

NNM – (DOE) Northern New Mexico

Security Site

NNM CAB – Northern New Mexico

Citizens' Advisory Board

NNSA - National Nuclear Security

Administration

NSSAB – Nevada Site-Specific Advisory

Board

NSTF - National Transportation Stakeholder

Forum

OMB – Office of Management and Budget

OR – (DOE) Oak Ridge Site

ORNL – Oak Ridge National Laboratory

ORSSAB – Oak Ridge Site-Specific

**Advisory Board** 

Paducah – (DOE) Paducah Site

Paducah CAB – Paducah Citizens Advisory

Board

PORTS SSAB - Portsmouth Site-Specific

**Advisory Board** 

Portsmouth – (DOE) Portsmouth Site

SC - DOE Office of Science

SLAC - Stanford Linear Accelerator

Laboratory

SNF – Spent Nuclear Fuel

SRS – (DOE) Savannah River Site

SRS CAB - Savannah River Site Citizens

**Advisory Board** 

SSAB – Site-Specific Advisory Board

SWPF - Salt Waste Processing Facility

TRU – Transuranic Waste

U-233 – Uranium-233

UNF - Used Nuclear Fuel

WIPP – Waste Isolation Pilot Plant

WIR - Waste Incidental to Reprocessing

WTP – Waste Treatment Plant

#### **PARTICIPANTS**

<u>Hanford Advisory Board</u>: Stephen Hudson, Chair; Susan Leckband, Vice Chair; Shelley Cimon, Pam Larsen, Member; Jeff Frey, Deputy Designated Federal Officer; Doug Aoyama, Deputy Chief Financial Officer, Kim Ballinger, Alternate Federal Coordinator; Greg Jones, Tiffany Nguyen, Alex Teimouri, Geoff Tyree, Federal Staff; Sharon Braswell, Michael Turner, Barbara Wise, Contractor Support Staff

<u>Idaho National Laboratory Citizens Advisory Board</u>: Willie Preacher, Chair; Nicki Karst, Vice Chair; Herb Bohrer, Teri Tyler, Members; Bob Pence, Federal Coordinator; Peggy Hinman, Lori McNamara, Contract Support Staff

<u>Nevada Site Specific Advisory Board</u>: Kathleen Bienenstein, Chair; Donna Hruska, Vice Chair; Kelly Snyder, Deputy Designated Federal Officer; Cindy Lockwood, Robert Boehlecke; Barbara Ulmer, Contractor Support Staff

Northern New Mexico Citizens' Advisory Board: Carlos Valdez, Chair; Manuel Pacheco, Vice-Chair; Ralph Phelps, Angel Quintana, Doug Sayre, Joseph Viarrial, Members; Lee Bishop, Deputy Designated Federal Officer; Christina Houston, Alternate Deputy Designated Federal Officer, Menice Santistevan, Contractor Support Staff

Oak Ridge Site-Specific Advisory Board: David Martin, Chair; David Hemelright, Vice Chair; Alfreda Cook, Susan Gawarecki, Member; David Adler, Alternate Deputy Designated Federal Officer; Spencer Gross, Pete Osborne, Contractor Support Staff

<u>Paducah Citizens' Advisory Board</u>: Ralph Young, Chair; Ben Peterson, Vice Chair, Judy Clayton, Kenneth Wheeler, Members; Robert Smith, Federal Coordinator; Deputy Designated Federal Officer; Eric Roberts, Jim Ethridge, Contractor Support Staff

<u>Portsmouth Site-Specific Advisory Board</u>: Will Henderson, Chair; Richard Snyder, Member; Greg Simonton, Federal Coordinator; Julie Galloway, Cindy Lewis, Contractor Support Staff

<u>Savannah River Site Citizens Advisory Board</u>: Donald Bridges, Chair; Harold Simon, Vice Chair; Gerri Flemming, Federal Coordinator; Ashley Whitaker, Contractor Support Staff

## DOE Headquarters:

David Huizenga, Senior Advisor, Office of Environmental Management
Tracy Mustin, Principal Deputy Assistant Secretary, Office of Environmental Management
Frank Marcinowski, Deputy Assistant Secretary, Office of Waste Management
Terry Tyborowski, Acting Deputy Assistant Secretary, Office of Program Planning and Budget
Catherine Alexander, EM SSAB Designated Federal Officer
Melissa Nielson, Director, Office of Intergovernmental and Community Activities
Elizabeth Schmitt, Office of Intergovernmental and Community Activities
Michelle Hudson, Office of Intergovernmental and Community Activities
Colin Jones, Senior Policy Advisory, Office of Environmental Management
Paul Seidler, Director, EM Office of External Affairs

Frazer Lockhart, Office of Tank Waste Management Paivi Nettamo, Office of Communications Robert Stern, Office of Project Assessment Alexandra Gilliland, e-Management Sayoh Mansaray, e-Management

## Others:

Christine Batchelder, Groundwater Essentials

David Bernhard, Private Citizen

Richard Bloom, City of West Richland

Beatrice Brailsford, Snake River Alliance

Susan Brooks, Newport News

Grant Carlisle, Private Citizen

Annette Cary, Tri-City Herald

Tom Clements, Friends of the Earth

Suzanne Dahl, Washington State Department of Ecology

Jeffrey Dennison, DOE Contractor

Robert Downing, Hi-NNS

Robert Edwards, Private Citizen

Ed Fredenburg, Washington Department of Ecology

Jenny Freeman, Strata-G

Darice Jamison, DOE Contractor

Rickey Keeling, Paducah Remediation Services

Phil Klevorick, Clark County, Nevada

Sylvie Kramer, AREVA

Robert Milazzo, Spectra Tech Inc.

Cheris Moon, Public

Mike Nartker, Weapons Complex Monitor

Robert Peel, Public Independent Consultant

Rachel Scholes, Northwestern University

Rick Greene, Restoration Services, Inc.

#### **MEETING MINUTES**

The Environmental Management Site-Specific Advisory Board (EM SSAB) met via webinar on Thursday, April 25, 2012, at the DOE Headquarters (HQ) in Washington D.C. Participants included EM SSAB officers and members, DOE HQ staff, and EM SSAB Deputy Designated Federal Officers (DDFOs), Federal Coordinators, and contractor support staff. The meeting was open to the public and conducted in accordance with the requirements of the Federal Advisory Committee Act.

## Welcome, Opening Remarks, and DOE-HQ News and Views

The Designated Federal Officer for the EM SSAB Catherine Alexander called the Chairs Meeting to order at 1:03 p.m. EM SSAB representatives were introduced, and Alexander outlined the procedures for the webinar.

## **EM Program Update**

David Huizenga, Senior Advisor for the Office of Environmental Management, provided a brief overview of current EM issues and activities. His presentation is available at <a href="http://energy.gov/sites/prod/files/2013/04/f0/Chairs%20Webinar%20Presentation%20-%20EM%20Program%20Update.pdf">http://energy.gov/sites/prod/files/2013/04/f0/Chairs%20Webinar%20Presentation%20-%20EM%20Program%20Update.pdf</a>.

In summarizing progress in the EM program, Mr. Huizenga noted that of the 107 sites assigned to EM, 90 have been cleaned up, thus reducing risks to the environment and the public. Challenges remain, including the immobilization of liquid tank waste and the disposition of plutonium. EM's work is hazardous, but safety is the top priority. EM's overall injury rates are lower than those of comparable industries. Some 850 federal and contractor managers have participated in EM's *Leadership for a Safety Conscious Work Environment* training, including Mr. Huizenga and other EM managers. Workers are encouraged to communicate to management any areas for safety improvement that they observe.

Progress at sites includes the consolidation of nuclear waste into glass logs at the Savannah River Site's (SRS) Defense Waste Production Facility (DWPF). The initiation of the Integrated Waste Treatment Unit (IWTU) in Idaho was delayed, but EM is working with the state and the U.S. Environmental Protection Agency (EPA) to ensure that it will run safely.

The EM Fiscal Year (FY) 2014 budget request totals \$5.62B. Hanford and SRS requests are for a large portion of the total, with funding for management of high-level liquid waste representing more than one-third of the program's budget. Accomplishments in FY 2014 at Hanford will include the complete construction of the Analytical Laboratory, a major facility in the Waste Treatment and Immobilization Plant (WTP), and the complete retrieval of waste from single-shell tanks at Tank Farm C. At SRS, 100 canisters of high-level waste (HLW) will be packaged, and construction on the Salt Waste Processing Facility (SWPF) will continue. EM is negotiating with the contractor of the SWPF, with plans to develop a baseline for processing work shortly.

Completion of deactivation and decommissioning (D&D) of 36 facilities is planned for FY 2014; new D & D activities will begin at the Oak Ridge (OR) and Hanford sites. At OR, demolition of K-25 continues, and FY 2014 funding will allow for work on the K-27 building.

Nuclear materials and spent fuel are being safely stored in the K Reactor at SRS. The safe handling of nuclear materials and used nuclear fuel are planned for FY 2014. EM is dispositioning OR's inventory of uranium-233 (U-233), and will send it to the Nevada National Security Site (NNSS). Progress continues to be made in cleanup of the Portsmouth and Paducah sites.

Operation of the Waste Isolation Pilot Plant (WIPP) continues to support cleanup across the EM complex, with transuranic (TRU) waste shipments planned for FY 2013 and 2014. FY 2013 shipments include SRS, Idaho National Laboratory (INL), and Los Alamos National Laboratory (LANL).

In FY 2014, 9% of the budget will support soil and groundwater remediation. The Material Disposal Area C at Los Alamos National Laboratory (LANL) will receive funding. Remediation of Hanford's 618-10 Burial Ground continues. Once EM cleanup at the Stanford Linear Accelerator Laboratory (SLAC) and Brookhaven National Laboratory (BNL) is complete, surveillance and maintenance will be transferred back to DOE's Office of Science. A stack needs to be torn down at BNL, but the potential for vibrations is complicating efforts.

Despite budget challenges, investment in technology development continues to be a priority. For example, technology to maximize waste loading in glass has been implemented at West Valley and SRS, and will be implemented at Hanford. This process can shorten lifecycle and operations costs, because more waste can be placed into glass cylinders. This process will cut down significantly on the number of waste logs produced at Hanford.

Funding is also being directed at groundwater modeling that will provide a clearer understanding of groundwater migration and the best placement of monitoring wells. The rate of contaminant movement and direction and mercury remediation are other areas for technology development. Mercury released from buildings in past decades has found its way into the environment. Concrete in some buildings is impregnated with mercury, and for this reason, EM needs to understand how to disposition concrete that is leeching mercury. Another investment is separation technology, including small-ion exchange capability to remove cesium nuclides from the waste stream. This capability could be used at Hanford to potentially bypass a treatment step in creating low-activity-waste glass.

In the coming years, EM must work in an uncertain fiscal environment and address emergent technical challenges, especially in large construction projects. Although the bulk of EM projects have been removed from the Government Accountability Office (GAO) high-risk list, large construction projects with technical challenges and first-of-their-kind facilities remain on that list.

Mr. Huizenga recently attended stakeholder meetings to discuss the uncertain fiscal environment. He plans to have discussions with regulators, tribal nations and other stakeholders to align EM priorities with stakeholders' priorities, commitments, and expectations.

Optimizing waste disposal processes and systems, improving project and contract management, and investing in technology development are high priorities on EM's path forward.

Mr. Huizenga requested sites' input and expectations to reach a transparent prioritization process. Community participation through the EM SSAB is encouraged, along with balance and diversity on boards to reflect the interests of the local communities.

#### Discussion

Carlos Valdez of the Northern New Mexico Citizens Advisory Board (NNM CAB) asked about EM's goal to reduce legacy waste by 90% by 2015. Mr. Huizenga responded that this is a goal for legacy TRU waste, but the schedule may slip, because SRS was not able to begin packaging TRU waste as quickly as hoped, due to fiscal constraints. That said, EM is trying to get TRU off of the mesa at LANL and shipped to WIPP. Mr. Frank Marcinowski, Deputy Assistant Secretary for Waste Management, concurred that the 2015 schedule for TRU work will likely slide due to funding challenges.

In response to Mr. Valdez's question about technical challenges facing EM, Mr. Huizenga also noted that EM is looking at technologies to avoid erosion, corrosion and mixing problems at the large vitrification plant at Hanford. Another focus area is the INL, where the Integrated Waste Treatment Facility was shut down due to the incomplete combustion of charcoal when the steamer unit was brought up to temperature. EM is studying why this occurred. Mr. Huizenga acknowledged that large, first-of-their-kind facilities have technical challenges, but that, overall, EM D&D operations are going well across the complex.

Will Henderson, Chair of the Portsmouth Site-Specific Advisory Board (SSAB), asked what impact Portsmouth's uranium bartering arrangement will have on the site's budget request and whether funding will decrease due to the increase in uranium supply on the open market. Mr. Huizenga said that EM will continue to barter and has several years' worth of material. Prices are down, but a market analysis shows that up to 14% of EM's uranium inventory could be bartered without affecting the market price. EM will continue to barter, while keeping D&D activities ongoing at Portsmouth.

Mr. Huizenga asked Kathleen Bienenstein, Chair of the Nevada SSAB, whether the Nevada SSAB had a view on U-233 and the materials being sent from OR to Nevada. Ms. Bienenstein stated that the board sent a letter of support for the U-233 shipments to the site, expressing confidence that all safety measures are in place. Mr. Huizenga acknowledged that some people may have a different opinion and that he appreciates the Nevada SSAB's support. EM is working to demonstrate that shipping can be done safety and securely.

Don Bridges, Chair of the SRS CAB, said that the operational level of liquid waste processing at SRS in FY 2014 is low. He added that the SWPF needs a completion date to enable site closure. Mr. Huizenga noted that the FY 2013 budget has a cap on defense spending, and the account is down approximately \$152M from the previous year across EM sites. Mr. Huizenga noted that EM wants to maintain its construction schedule and that EM had to decide how to maintain the DWPF, support salt waste processing, and balance other goals. EM can exceed the 100 canisters being processed at the DWPF and is exploring methods to produce more canisters. Mr. Huizenga added that details about this are unavailable, as the negotiations with the contractor are ongoing.

Ralph Young, Chair of the Paducah CAB, noted that the United States Enrichment Corporation (USEC) announced the shutdown of the Paducah Gaseous Diffusion Plant (PGDP). The Paducah site office is requesting funding in FY 2014 to transition the plant to the next phase and to obtain out-year support in FY 2015 and 2016. The Paducah CAB would like to know when

EM will address the transition plan that the site recommended. Reuse and D&D are important to the community, Mr. Young said. Mr. Huizenga said that about \$140M is budgeted for monitoring and surveillance at the site, but that he does not know when the transition of the facilities from USEC to DOE will occur. Plans for site reuse and the future of the PGDP are being discussed. An indication of how long USEC will run the facility will provide the information that EM needs to create a final transition plan.

Stephen Hudson, Chair of the Hanford Advisory Board (HAB), asked if EM is committed to including the public in cleanup decisions, especially those that involve changing priorities. Terry Tyborowski, Deputy Assistant Secretary (DAS) for the Office of Program Planning and Budget, noted that local boards should meet with site managers to provide input on FY 2015 cleanup priorities. EM is in the process of developing its FY 2015 budget request. Susan Leckband, Vice Chair of the HAB, is concerned that FY 2015 priorities were developed in a vacuum without timely stakeholder involvement due to this year's delayed release of budget data. The HAB will meet next week with local DOE officials to discuss priorities.

Ms. Leckband hopes that reprogramming will help distribute FY 2013 and 2014 funds in an equitable way. Mr. Huizenga said that EM is working with the Office of Management and Budget (OMB) and plans are being reviewed by OMB. EM wants the budget to go to Capitol Hill quickly to allow shifting of funds to tank infrastructure, specifically for the single-shell tanks at Hanford, and to other activities, as well as to avoid furloughs.

Ms. Tyborowski clarified that reprogramming will not move defense-related money between sites. Mr. Huizenga commented that some reprogrammed money is borrowed and will be paid back; hence, there is no net transfer. Ms. Tyborowski added that reprogramming cannot occur until the Executive Branch approves it. DOE must be consistent with what the Administration supports.

Willie Preacher, Chair of the INL CAB, would like to see full funding to complete scheduled cleanup activities at the Idaho site. The INL CAB would like to see more progress on the Integrated Waste Treatment Unit (IWTU), the Accelerated Retrieval Project (ARP), and calcine work. Mr. Preacher asked about the plans for used nuclear fuel, sodium-bearing waste, and calcine. Mr. Preacher stated that INL will ship materials to WIPP if possible.

Mr. Huizenga has spoken with management at INL and hopes to start retrieval work for ARP and sub-surface TRU waste and low-level waste (LLW). Mr. Huizenga confirmed for Nicki Karst, Vice Chair of the INL CAB, that the IWTU is on the GAO High-Risk List. IWTU will be removed from the list if DOE can get it running and package the 900,000 gallons of tank farm waste that remain there.

David Martin, Chair of the Oak Ridge Site-Specific Advisory Board (ORSSAB), noted that U-233 will arrive at the Nevada site soon, and thanked the Nevada SSAB for support for the shipments. Every gram of U-233 that does not need to be downblended saves OR money, he said.

Mr. Huizenga mentioned that he had no new updates on the Manhattan Project National Parks legislation. EM supports the bill and is hopeful that it will pass.

# **Presentation: Budget Update**

Ms. Tyborowski, DAS for Program Planning and Budget, gave an update on the FY 2014 budget. Her presentation is available at: <a href="http://energy.gov/em/downloads/chairs-meeting-april-2013">http://energy.gov/em/downloads/chairs-meeting-april-2013</a>.

In looking over the past few years, Ms. Tyborowski noted that EM's budget was highest in FY 2012 at a level of \$5.71B. The annualized Continuing Resolution (CR) for FY 2013 was \$5.7B, which is a calculation of the budget that Congress passed on October 1, 2012. At the time of the budget's publication, sequestration had not happened, and EM did not know the amount of its FY 2014 budget. Therefore, the \$5.7B amount is unrelated to the cash in hand and to the scope of EM's current programs. Currently, as a result of sequestration EM is operating at a budget of \$5.29B.

The FY 2014 request for EM is \$5.622B, reflecting a slight increase in the budget from FY 2013's figures. Ms. Tyborowski explained that the defense EM cleanup component of the FY 2014 request of \$5.317B includes an offset of \$463M from the Uranium Enrichment D&D fund for gaseous diffusion plant cleanup. Although legislation authorizing this fund expired in 2009, each year the Administration has proposed legislation to continue the fund, and Congress persists in blocking it. Approximately \$4B remains in the fund, an amount that is insufficient to clean up the gaseous diffusion plants. If funds do run out, the government will need to appropriate money to clean up the plants.

The FY 2014 budget dedicates nearly \$2B to radioactive tank waste, and around \$1B to facility D&D, including gaseous diffusion plants. The spent nuclear material budget of \$906M includes Building 3019 at OR and H-Canyon and other facilities at Savannah River Site (SRS). TRU waste and solid waste are funded at a level of \$804M. Soil and groundwater work is allotted \$492M, while \$392M is requested for essential services. The majority of the funding will support work in Washington State, followed by South Carolina, Kentucky, Tennessee, and Idaho.

Funding for technology development is being increased from \$10M to \$24M, which is a positive investment during a constrained fiscal environment (at one point, the budget for technology was \$400M). OR saw a \$4M increase in technology development and HQ was allocated \$20M to achieve a technology readiness level and to allow for the movement of funds to sites when there are local applications for technology.

Site funding changes include a transfer of funds to Paducah and to LANL to remove TRU waste from the mesa. Funding reductions to sites in FY 2014 are due to the completion of various cleanup activities.

The FY 2014 budget documentation can be found at www.doe.gov.

#### Discussion

Mr. Valdez inquired about proposed legislation to form a new agency to oversee storage of high-level nuclear waste with funding of \$765M. Ms. Tyborowski responded that EM's FY 2014 request does not cover this proposal, and that costs related to standing up such an agency would likely be covered by the Office of Nuclear Energy (NE). Lee Bishop, Designated Federal Officer (DDFO) of NNM CAB, added that the proposal would pull \$700M from NE funding and that this proposal is currently being considered by the U.S. House of Representatives.

Mr. Valdez asked whether EM is still subject to sequestration. Ms. Tyborowski responded that it is and that there may be one or more control points at a site, but all site budgets were evenly cut. FY 2013 documents report a budget of \$5.7B, but available funding is \$5.3B. This inconsistency is due to a proxy, as it was unknown at the time the budget was published whether sequestration would occur.

Ms. Tyborowski shared that the CR process has been common for about 20 years. A CR provides agency funding at levels previously approved by Congress for a specified period of time. On March 26, 2013, EM received its full year CR, before sequestration went into effect.

Mr. Valdez asked what FY 2014 will look like if a CR is enacted for the first six months. Ms. Tyborowski stated that it depends on how Congress wants to proceed; they may enact FY 2012 levels. She is optimistic that the normal budget process will occur.

Dr. Bridges shared concerns about the SRS liquid waste budget, potential production cutbacks, personnel reductions, and regulatory commitments in 2014. Ms. Tyborowski acknowledged that funds are low this year due to defense cuts, and every site is affected by this. Currently, some contractors are being furloughed due to sequestration. The positive news is that H-Canyon and nuclear materials management work continues and more work is being done at H-Canyon to remove vulnerable fuel.

Dr. Bridges commented that there may be a discrepancy between the rate at which spent fuel is coming out of H-Canyon and the amount that the system can accommodate.

Ben Peterson, Vice Chair of the Paducah CAB, asked about funding for Paducah in FY 2014, specifically what details would be revealed on a CAB level, and how it would fit within the \$140M allotted for groundwater work. Ms. Tyborowski deferred to Frank Marcinowski, Deputy Assistant Secretary for Waste Management, on this matter.

Mr. Young, expressed concern that a budget increase for Paducah will make the site vulnerable to cuts in the future. Ms. Tyborowski responded that financially, Paducah is in a good place based on the increase.

Michelle Hudson of EM-3.2 asked whether the budget request reflects compliance with all cleanup agreements. Ms. Tyborowski shared that it reflects coverage of enforceable milestones in 2014.

Ms. Leckband asked the impact if HQ pushes criteria to the field offices to rank priorities in order to help determine cuts, specifically with regards to sequestration. Ms Tyborowski responded that these decisions are up to the site managers who execute finances and work with contractors. EM works with sites six months in advance to determine what can be achieved. EM is pleased with its managers' efforts to work within the current CR.

Mr. Preacher asked about a decrease in funds for Sodium-Bearing Waste (SBW) at INL. Ms. Tyborowski said that based on discussions between HQ and INL about EM's needs for sustaining operations at the site, this is a potential area for reduction.

Mr. Martin noted that EM's budget cuts seem to be at a lower level than DOE overall, and that there are funds for D&D. In response, Ms. Tyborowski reiterated the \$463M contribution to the Uranium Enrichment D&D fund for gaseous diffusion plant cleanup. She noted that if the legislation is renewed, committees would appropriate the funds to the trust fund for clean-up efforts.

Ms. Tyborowski invited sites to call her for additional details.

Dr. Bridges asked for Ms. Tyborowski's budget assessment of FY 2014. She believes that EM has good relationships with the appropriations committees and will be in good shape. A "plusup" (which is a higher than expected appropriation) would not be a surprise due to these relationships and EM's historic budget figures.

## **Presentation: Waste Disposition Update**

Frank Marcinowski, Deputy Assistant Secretary for Waste Management (EM-30), provided a waste disposition update. His presentation is available at: <a href="http://energy.gov/sites/prod/files/2013/04/f0/Chairs%20Webinar%20Presentation%20-%20Waste%20Disposition%20Strategies%20Update.pdf">http://energy.gov/sites/prod/files/2013/04/f0/Chairs%20Webinar%20Presentation%20-%20Waste%20Disposition%20Strategies%20Update.pdf</a>.

Mr. Marcinowski highlighted recent EM accomplishments and focus areas:

- Despite funding challenges, EM is ahead of schedule in TRU waste removal at LANL. The work is critical to EM reaching its 2014 milestone agreement with the State of New Mexico. Separately, the state has accepted DOE's plan to remove below-ground TRU at Material Disposal Area G, allowing work to move forward there. EM continues to implement the LANL framework agreement. It has been determined that EM will be unable to meet the 2015 deadline for completion of the LANL cleanup under the current consent order; however, success with TRU waste disposition will lead to renegotiation of the consent order with the state.
- Although EM's TRU waste shipments to WIPP have slowed overall, shipments continue from INL, SRS, and Argonne National Laboratory. EM is looking at other options to complete the shipments of legacy TRU from SRS and to fulfill the TRU commitments at OR in 2014.

- At OR, design work for sludge processing is continuing. Funding issues still need to be resolved, and decisions are needed on treatment plant requirements.
  - OR is finalizing a transportation plan for U-233, and EM is working with the State of Nevada to begin shipments. The U-233 campaign will continue throughout 2014, and TRU removal operations will resume at the OR site.
  - TRU tanks are planned for the Office of River Protection (ORP), and Mr. Marcinowski expects that New Mexico will process permit modifications into 2014. Waste classification efforts to document the tank contents are underway.
- In January 2013, DOE published its *Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste* in response to the Blue Ribbon Commission's (BRC) final report and recommendations. Congressional action is needed before the Department can implement its strategy, and on April 25, 2013, a bipartisan group of U.S. Senators, led by Senator Wyden (D-OR), proposed a bill that contained strategies for the implementation of a selection of the BRC's recommendations. The measure has yet to be introduced as legislation, but EM is providing information for the effort. In the meantime, NE has the lead on BRC-related activities and is exploring transportation issues related to the committee's recommendations.
- During the past year, EM has worked with NE to evaluate the effects of a wide range of heat-generating waste on the salt repository environment.
- EM published two waste-incidental-to-reprocessing (WIR) determinations for West Valley melters and their components. This year budget constraints prevented efforts to decommission these components, but Mr. Marcinowski hopes this will occur in 2014.
- Two national LLW/mixed low-level waste (MLLW) disposal contracts were awarded: one to Energy Solutions in Utah and another to Waste Control Specialists in Andrews, Texas. Energy Solutions is accepting Class A waste. Waste Control Specialists accepts Classes A, B and C.
- EM assisted the National Nuclear Security Administration (NNSA) in issuing a Site-Wide Environmental Impact Statement (EIS) at the NNSS. This EIS provides a bounding case for future disposal opportunities at NNSS.
- Performance at the Advanced Mixed Waste Treatment Project (AMWTP) at INL is showing improvement. The Accelerated Retrieval Project (ARP) facility at INL will restart operations in the current calendar year. In addition, sodium bearing waste (SBW) treatment at INL is scheduled to be completed by December 2014.
- HQ is making progress on the Greater-Than-Class-C (GTCC) EIS, which is currently under a final review.

- Production rates at the Depleted Uranium Hexafluoride (DUF6) conversion plants are improving at Paducah and Portsmouth. The DUF6 Conversion Project will continue operations at both sites.
- At SRS, plans for the disposition of non-MOXable plutonium are yet to be finalized. The transport of uranium mill tailings from the Moab cleanup project was originally scheduled for a full year, but was suspended for three months during FY 2013 and then resumed. It is hoped that the FY 2014 budget will fund a full year's operation.
- The permit modification for the Hanford TRU Tank Disposition Initiative was submitted to the State of New Mexico. The state may decide that a Class III permit modification is needed, depending on the level of public interest. EM is documenting the tank waste classification. This process will enable EM to determine which tanks meet the TRU designation. The Mercury Storage EIS was released in April 2013 and is currently going through the public comment process. Meetings have been held in New Mexico to consider options for mercury disposal at WIPP. The EIS gives preference to utilizing a combination of existing facilities and the new Waste Control Specialists facility near Andrews, Texas.
- On the subject of excess material and metal recycling, Mr. Marcinowski reported that EM evaluated nickel recycling and determined that the government (taxpayers) would not currently receive a good economic return on the metal. Consequently, EM plans to recover the nickel, store it, and re-examine the market conditions at a later date. If there is an uptick in nickel prices, EM would make plans to recycle the nickel. NNSA released an Environmental Assessment late in 2012 on the subject of metal recycling and received a fair amount of public comment on it. EM is working with the NNSA to address these comments.
- EM is revising the updates to Order 435.1 for radioactive waste management, and public comment is expected this summer.

## Discussion

Mr. Valdez asked whether WIPP would be taking waste from Hanford tanks, and, if so, whether WIPP's facility permit would be changed to allow WIPP to receive non-solid waste, or if the waste would be packaged to meet WIPP's current requirements. Mr. Marcinowski responded that the sludge waste from the Hanford tanks would be pumped out, dried, and solidified before it was packaged, so that it would meet WIPP's current acceptance criteria.

Ralph Phelps, former Chair of the NNM CAB, noted that there is a nuclear waste proposal on Senator Feinstein's (D-CA) website that calls for construction of a pilot facility to store spent fuel from commercial nuclear power plants, and he asked where EM's HLW fits into this proposal. Mr. Marcinowski explained that the proposed bill calls for creating a new facility for storing spent nuclear fuel. The proposal would mandate that utility payments to the nuclear waste fund cover the commercial side of storage or disposition. If DOE entered an agreement with the organization designated to implement the legislation, then DOE would have to

contribute appropriated funds to pay for the defense side. EM is looking at the legislation and will most likely have comments. Conceptually, the bill seems to fit with the BRC recommendations and the DOE strategy published in January 2013.

Mr. Henderson addressed the uranium barter arrangement with the Portsmouth D&D contractor, which was put in place to help offset the cost of cleanup work. He noted that the barter arrangement originally sought to accelerate the D & D program, and that acceleration is a key justification for the onsite disposal cell. Mr. Henderson asked if Portsmouth should expect to see an accelerated schedule. Mr. Marcinowski said that EM expects near-term funding to be flat and that future increases are unlikely. Mr. Henderson added that the uranium supply is becoming limited and expressed concern about limiting D&D operations due to funding shortfalls.

Mr. Marcinowski confirmed for the SRS CAB that EM is researching the behavior of salt in high-heat environments. Mr. Marcinowski also confirmed that Congressional action/legislation is not needed to support tank waste disposal at the WIPP facility.

Mr. Young noted a dispute among DOE regulators concerning the methods used for source control and groundwater contamination with the C400 program. He suggested that the regulators get together to create a solution to avoid the delays that a formal dispute may cause. Mr. Marcinowski noted that he will look into this issue.

Mr. Peterson stated that the Paducah site is evaluating on-site and off-site disposal options, and he wondered whether the opening of the new storage facility in Texas would affect the cubic-yard cost calculations done in on-site and off-site analyses. He also wondered if costs would be recalculated based on the assumption that competition would lower prices. Mr. Marcinowski noted that the costs estimates are different from current costs in the complex-wide contract, but he does not think that this will change the outcome of the analysis.

Mr. Preacher brought up the BRC recommendation for locating a permanent repository for high-level waste (HLW). He asked if DOE has a plan for determining the number of metric tons that would go to a storage site. Mr. Marcinowski said that DOE is planning for this, and that the feedback received from the consent-based siting process would determine the answer. Mr. Marcinowski said a number of states and communities have already expressed interest in providing a storage location, but legislation is required before efforts toward siting a new storage facility can begin.

Mr. Martin asked about changes at WIPP regarding the hazardous waste facility permit and chemical sampling of materials used at generating sites. Mr. Marcinowski noted that some changes are in progress. Currently, an evaluation is being conducted to determine whether WIPP can handle other waste streams than those currently accepted. Plans are for WIPP to accept waste through 2030 and to be decommissioned in 2035. However, that timeline will be reevaluated on an ongoing basis.

## **Comments from Melissa Nielson**

Melissa Nielson, Director of the Office of Intergovernmental and Community Activities, stated that she will retire on May 31, 2013. She thanked the Chairs for their service and expressed her appreciation for the EM SSAB.

## **Public Comment**

Tom Clements of the Friends of the Earth in Columbia, SC, noted that he attends the SRS CAB meetings. He appreciates the EM SSAB members' roles and their desire to secure funding for cleanup. He stated that nuclear weapons' spending has grown seven to eight percent this year. Mr. Clements noted that several pieces of legislation related to nuclear weapons, nuclear waste, and related funding have been introduced in Congress. He said that Senator Lindsay Graham (R-S.C.) was looking closely at spending at the SRS related to the MOX facility, which is an NNSA project.

Phil Klevorick, a Clark County, Nevada, liaison, said he appreciates individual site missions and the need for clean up, but that Nevada should not be the only site that receives complex-wide waste. Mr. Klevorick is not opposed to waste shipments to Nevada, but he believes that there are regional concerns as well as environmental impacts to consider. Local governments need to be involved in these decisions, and local DOE representatives and DOE headquarters need to work with local agencies. He feels that there is significant opposition to the uranium-233 (U-233) shipments to Nevada due to the unacceptable way that the disposition plan was proposed and put into place. Mr. Klevorick would like DOE to be more forthcoming about issues and more responsive to requests for meetings.

Susan Gawarecki, a member of the Oak Ridge Local Oversight Committee, has been working on DOE issues for more than 20 years. She is concerned about a decline in DOE concern for OR environmental issues. The support for enforceable milestones has decreased from \$500M to \$400M. Ms. Gawarecki believes that DOE has never maintained its commitments and that funding has gone to larger facilities that are lightly contaminated. She stated that OR is considering a second landfill at the site, even though OR has the largest neighboring population of any major DOE site, along with major interstate systems nearby. She said that there are mercury releases into a stream that flows through the town, which is a concern because OR receives an average of 55" inches of rainfall per year, and there is groundwater near the surface. Ms. Gawarecki mentioned that a project to stem contamination in the stream is a third attempt. Ms. Gawarecki asked DOE to take a second look at its site prioritization process, and she urged DOE to focus on OR due to environmental and weather concerns, and to avoid deterioration of facilities that occurs prior to completion of D&D.

Pam Larson of the Hanford Communities invited the EM SSAB to come visit the site in the near future; the Chairs' webinar took the place of a face-to-face meeting at Hanford this month.

## **Cross-Cutting Issues and Product Development**

Mr. Martin suggested that the EM SSAB Chairs develop a recommendation to move nickel to one location and declassify it, rather than keep the nickel under guard at various sites while awaiting improved market conditions for potential sale. Mr. Martin noted that the ORSSAB

continues to focus on the topic of long-term stewardship and that stewardship guidance for sites with continuing missions after cleanup remains important. Mr. Martin also urged that future EM SSAB Chairs meetings be held in-person.

Mr. Preacher urged more discussion regarding the success of EM projects, which in turn benefits all of EM. The INL CAB has issues with the IWTU, the AMWTP, and the ARP. The IWTU will treat 900 gallons of Sodium Bearing Waste (SBW), which would meet DOE's requirements to treat all SBW. The INL CAB hopes cleanup activities at the site will stay on schedule, regardless of the current challenges. INL is prioritizing projects now. Mr. Preacher hopes that shipments to WIPP will be completed by 2016.

Mr. Preacher noted that the ARP is used to prepare waste for characterization and shipment to WIPP. The program has slowed and, due to funding setbacks, will be limited to just one crew. The INL CAB feels that the ARP's success would boost the entire EM program. The INL CAB has submitted a request for additional funding; another crew and an additional \$30M will allow for work at full speed.

Mr. Hudson noted the perennial and complex-wide problem of sharing with stakeholders the nature of the disposition of various forms of waste, in terms of volumes and locations. He suggested a graphical representation to share this information as opposed to a checklist with numbers.

Mr. Young would like to work with OR on a nickel proposal, because there is nickel at Paducah as well. He applauded EM's emphasis on D&D and encouraged its continuation. Paducah wants to remain focused on planning for the future.

Dr. Bridges reflected on DOE Order 435.1 and mentioned that he supports the concept of a risk-basis for dealing with waste, rather than a legislative basis for dealing with HLW. Dr. Bridges urged EM to look for a more effective use of WIPP complex-wide.

Mr. Valdez agreed with Dr. Bridges' comment regarding WIPP. Transuranic waste (TRU) is being transported now, and more shipments are planned, possibly including ones from Hanford. Mr. Valdez asked if DOE has evaluated the amount of available space at WIPP, in order to determine if WIPP can accommodate all of the waste that is being shipped there. He also wondered if DOE is considering other storage sites for waste disposition.

Ms. Leckband mentioned that the HAB would welcome working with other sites on the graphical representation of disposition that was mentioned by Mr. Hudson. Ms. Leckband hopes that the end product could be posted on the DOE Website. She said that at a workshop more than a decade ago, a U.S. map was shown with different types of waste and transportation routes.

Donna Hruska of the Nevada SSAB (NSSAB) agreed that this representation could help explain how waste is transferred to certain locations. Mr. Henderson pointed out possible homeland security concerns regarding the sharing of transportation data. Ms. Leckband agreed, but said that this should not stop the local boards from communicating important details, excluding security-sensitive information. Mr. Preacher mentioned that the National Transportation

Stakeholder Forum (NTSF) is currently dealing with these issues and may be a resource. Mr. Hudson, Ms. Leckband, and Ms. Hruska agreed to work on this task. Ms. Alexander will contact NTSF and get more information.

Ms. Bienenstein suggested that the process of nickel recycling could be used in other locations, too. Paducah, OR, and Portsmouth are interested in working on this issue. Mr. Henderson noted that issues related to metal recycling apply to multiple sites, as recycling can be done for metals other than nickel. Hopefully, a proposal could emerge.

Ms. Alexander clarified that those who agree to work on a proposal for these concepts would need to contact each other to work on recommendations. The recommendations would then be sent to the Chairs, to be considered at the next Chairs meeting. These recommendations must be deliberated in a public meeting; this could occur at the upcoming EM SSAB meeting in Fall 2013.

Ms. Bienenstein mentioned NSSAB's recommendation to develop a work plan for the EM SSAB Chairs. She noted that issues discussed today could fit into a work plan, be slotted for discussion, enable research-gathering, and support informed decisions. Chairs should have received a draft letter on this topic from the NSSAB to Dave Huizenga, Senior Advisor for EM.

Ms. Leckband pointed out that a potential unintended consequence of a Chairs' work plan could be the need for additional time and effort to prepare and receive information, and to develop well-grounded recommendations. The representatives from the SRS CAB and ORSSAB agreed. David Hemelright, Vice Chair of the ORSSAB, suggested that holding a Chairs' workshop prior to the Chairs' meetings could allow for more discussion of issues.

Mr. Preacher noted that specifying what issues Chairs would consider in the coming year could hamper flexibility to respond to issues that unexpectedly arise. He asked which person will engage DOE on current issues, as a liaison would be needed. Ms. Bienenstein said that she has always received information from DOE quickly and that selecting an appropriate DOE contact may depend on the issue. She suggested that a work plan could address this concern. For example, regarding nickel recycling, a Chair would have five or six months to discuss options, and a work plan could stimulate each local CAB to conduct research. Mr. Hudson added that issues are brought to HAB committees for discussion and development and that draft advice often comes from committees and issue managers. The EM SSAB Chairs could make arrangements to build contacts, gather data, and share it with interested members.

Mr. Martin stated that work plans are used at the ORSSAB and committee meetings, and the board works closely with DOE and its liaisons from the U.S. Environmental Protection Agency and the Tennessee Department of Environment and Conservation. He recognizes the benefits of an EM SSAB work plan approach, but is unsure how it would be incorporated without adding additional time to meetings.

Ms. Alexander said that any proposed recommendation can be voted on at an upcoming EM SSAB Chairs' meeting. She explained that once the Chairs approve a proposed

recommendation, generally, it goes to the local boards for approval. However, this proposal to have a Chairs' work plan is administrative and, therefore, would not need local board approval.

The EM SSAB voted on the recommendation for a Chairs' work plan as follows:

- Yes: Hanford, Nevada, OR, Paducah, SRS
- No: Idaho, NNM, Portsmouth

Ms. Alexander asked if more discussion was needed, given the opposition to how the Chairs would function as a group. Ms. Hruska commented that it could be helpful for boards that are opposed to clarify their position before the next meeting.

Dr. Bridges commented that those boards who are opposed can take time to consider the recommendation and reinitiate discussion at the next meeting. Mr. Henderson proposed making the recommendation an agenda item for the next EM SSAB meeting. In lieu of that, Ms. Bienenstein suggested discussing it on the next EM SSAB Chairs' conference call. Ms. Alexander noted that there may be questions about how the work plans would be implemented. Ms. Bienenstein stated that Nevada will provide an additional explanation on the work plan concept during the next discussion.

Ms. Karst said that the Chairs effectively have a work plan that is pursued through calls and work between meetings. A more formal work plan might take away the flexibility to address issues that arise and require immediate attention.

Mr. Valdez agreed with this assessment, saying that this recommendation could prevent Chairs from developing unique focus areas, because EM would identify the focus areas. Ms. Bienenstein clarified that this approach does not ask DOE to provide work plan items, but that the CABs would submit to EM the items that they want to focus on as a group. Mr. Valdez responded that it seems that this is what is currently occurring. Ms Bienenstein explained that the current approach is not organized. She feels that topics in a work plan would be researched and further developed, and then presented during the biannual public meetings.

Ms. Alexander explained that EM allows flexibility for boards and members to give input to local level work plans and could do so at the Chairs level. She noted that DOE has to verify annually that it is receiving the advice that it seeks, so that agency guidance on areas where input is sought is important to effective board functioning.

Mr. Henderson stated that Portsmouth views the Chairs' work plan proposal as another level of bureaucracy and red tape and urged the Chairs to work with the current process and to avoid creating additional bureaucracy. Mr. Martin commented that during the recent Chairs' meeting in Washington DC, several proposed recommendations were abandoned and three new ones were developed during the course of the proceedings.

Ms. Karst asked if the intent of the proposal was to identify cross-cutting issues for work during the year. Ms. Bienenstein expressed that that is the goal, and that the proposal seeks to clarify issues, promote work in advance, facilitate informed recommendations and optimize time spent on issues.

Ms. Alexander noted that the cross-cutting issues identified today could be framed by Ms. Bienenstein and others in a work plan format that could be presented during the next Chairs' conference call in order to have something concrete to evaluate.

Ms. Hruska and Ms. Bienenstein volunteered to investigate several cross-cutting issues and demonstrate the process with and without a work plan. Ms. Alexander will place this on the agenda for the next EM SSAB teleconference.

## **Closing Remarks**

The EM SSAB Chairs will hold their next teleconference on June 18, 2013. The Portsmouth SSAB will host the fall 2013 EM SSAB Chairs' meeting on October 15–17 at Deer Creek State Park. The HAB will host the spring 2014 EM SSAB Chairs' meeting.

## Adjournment

Ms. Alexander expressed appreciation for the EM SSAB Chairs' input. She reiterated that the EM leadership understands the value of face-to-face meetings. Ms. Alexander adjourned the meeting at 5:26 p.m. EST.