ENVIRONMENTAL MANAGEMENT SITE-SPECIFIC ADVISORY BOARD CHAIRS' MEETING

PUBLIC MEETING MINUTES

Double Tree Hotel
215 South Illinois Avenue • Oak Ridge, TN 37830

April 28-29, 2010

LIST OF ACRONYMS

ARRA – American Recovery and Reinvestment Act
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CFO – Chief Financial Officer
CPR – Construction Project Review
D&D – Decontamination & Decommissioning
DAS – Deputy Assistant Secretary
DDFO – Deputy Designated Federal Officer
DFO – Designated Federal Officer
DOE – Department of Energy
DU – Depleted Uranium
DWPF – Defense Waste Processing Facility
ECA – Energy Communities Alliance
EIS – Environmental Impact Statement
EM – Office of Environmental Management
EM-1 – Assistant Secretary for the Office of Environmental Management
EM-2 – Principal Deputy Assistant Secretary for the Office of Environmental Management
EM-3 – Chief Technical Officer for the Office of Environmental Management
EM-4 – Chief Business Officer for the Office of Environmental Management
EM SSAB – Environmental Management Site-Specific Advisory Board
EPA – Environmental Protection Agency
EPI – Energy Parks Initiative
FACA – Federal Advisory Committee Act
FTE – Full-Time Equivalent
FUSRAP – Formerly Utilized Sites Remedial Action Program
FY – Fiscal Year
GAO – Government Accountability Office
GTCC – Greater-Than-Class C
HAB – Hanford Advisory Board
HLW – High-Level Waste
HQ – Headquarters
IAEA – International Atomic Energy Agency
IFDP – Integrated Facilities Disposition Project
INL – Idaho National Laboratory
INL CAB – Idaho National Laboratory Site EM Citizens Advisory Board
IV – Independent Verification
LLW – Low-Level Waste
LM – Office of Legacy Management
LTS – Long-Term Stewardship
LOC – Local Oversight Committee
M&O – Management and Operating
MDA – Material Disposal Area
MLLW – Mixed Low-Level Waste
MUEF - Multi-Use Educational Facility
NGA – National Governors Association
NE – Office of Nuclear Energy
NNM CAB – Northern New Mexico Citizens' Advisory Board
NNSA – National Nuclear Security Administration
NRC – Nuclear Regulatory Commission
NTS – Nevada Test Site
NTS CAB - Community Advisory Board for Nevada Test Site Programs
OMB – Office of Management and Budget
ORISE – Oak Ridge Institute for Science and

Education
ORNL – Oak Ridge National Laboratory
ORSSAB – Oak Ridge Site Specific Advisory Board
Paducah CAB – Paducah Citizens Advisory Board
PGDP – Paducah Gaseous Diffusion Plant
PORTS SSAB – Portsmouth Site Specific Advisory Board
QPR – Quarterly Project Review
RCRA – Resource Conservation and Recovery Act
RFP – Request for Proposal
RH-TRU – Remote Handled Transuranic Waste
ROD – Record of Decision
SC – Office of Science
SNF – Spent Nuclear Fuel
SNM – Spent Nuclear Material
SSAB – Site-Specific Advisory Board
SRS – Savannah River Site
SRS CAB – Savannah River Site Citizens Advisory Board
SWMU – Solid Waste Management Unit
SWPF – Salt Waste Processing Facility
TAN – Test Area North
TSCA – Toxic Substance Control Act
TPA – Tri-Party Agreement
TRU – Transuranic Waste
UMTRCA – Uranium Mill Tailings Radiation Control Act
USACE – United States Army Corps of Engineers
U-233 – Uranium-233
WIPP – Waste Isolation Pilot Plant
WTP – Waste Treatment Plant

PARTICIPANTS

- Hanford Advisory Board: Susan Leckband, Chair; Bob Suyama, Vice Chair; Shelley Cimon, National Liaison; Steve Pfaff, DDFO

- Idaho National Laboratory Site EM Citizens Advisory Board: R.D. Maynard, Chair; Willie Preacher, Vice Chair; Teri Tyler, Harrison Gerstlauer, Bruce Wendle, Members; Bob Pence, Federal Coordinator; Ceri Chapple, Contractor Support Staff

- Community Advisory Board for Nevada Test Site Programs: Walter Wegst, Chair; Harold Sullivan ,Vice Chair; Kelly Snyder, DDFO; Denise Rupp, Contractor Support Staff

- Northern New Mexico Citizens' Advisory Board: Robert Gallegos, Vice Chair; Edwin Worth, Co-DDFO; Menice Santistevan, Contractor Support Staff

- Oak Ridge Site Specific Advisory Board: Ron Murphree, Chair; Kevin Westervelt, Vice Chair; Darryl Bonner, Ted Lundy, Bob Olson, Members; John Eschenberg, DDFO; Dave Adler, Alternate DDFO; Patricia Halsey, Federal Coordinator; Peter Osborne, Spencer Gross Contractor Support Staff

- Paducah Citizens Advisory Board: Judy Clayton, Chair; Ralph Young, Vice Chair; Maggie Morgan, Member; Reinhard Knerr, DDFO; Robert Smith, Federal Coordinator; Eric Roberts, Contractor Support Staff

- Portsmouth Site Specific Advisory Board: Richard Snyder, Co-Chair; Larry Parker, Sharon Manson, Members; Joel Bradburne, DDFO; Greg Simonton, Federal Coordinator; Julie Galloway, Contractor Support Staff

- Savannah River Site Citizens Advisory Board: Manuel Bettencourt, Chair; Judith Greene-McLeod, Member; Gerri Flemming, Federal Coordinator; Erica Williams, Contractor Support Staff

- DOE Headquarters:
  Inés R. Triay, Assistant Secretary for Environmental Management
  Frank Marcinowski, Acting Chief Technical Officer and Deputy Assistant Secretary for Technical and Regulatory Compliance
  Joann Luczak, Deputy Assistant Secretary for Program Planning and Budget
  Dave Geiser, Director, Office of Legacy Management
  Melissa Nielson, Director, Office of Public and Intergovernmental Accountability
  Connie Flohr, Acting Director, Office of Budget
  Catherine Alexander Brennan, EM SSAB Designated Federal Officer, Office of Public and Intergovernmental Accountability
  Mark Janaskie, Office of Strategic Planning and Analysis

  Other: Gerald Boyd, Oak Ridge Site Manager; Mayor Tom Beehan, City of Oak Ridge; Amy

Fitzgerald, City of Oak Ridge; Loretta Averna, DOE EM; John Owsley, Tennessee Department of Environment and Conservation Liaison to the Oak Ridge Site Specific Advisory Board; Larry Camper, U.S. Nuclear Regulatory Commission; Connie Jones, U.S. Environmental Protection Agency; Sarah Roberts, Oak Ridge Institute for Science and Education; Dave Abelson, Rocky Flats Stewardship Council; Chris Dole, Crosby Township; Susan Gawarecki, Norman Mulvenon, Oak Ridge Reservation Local Oversight Committee; Stanley Gerstlauer, Jose Vasquez, Mario Vargas, Florence Snyder, William Mendez, Donna Campbell, Fay Martin, Daniel Axelrod, Johnny Clayton, public; Leslie Rodriguez, e-Management Inc; Lori Isenberg, Facilitator

MEETING MINUTES

The Environmental Management (EM) Site-Specific Advisory Board (SSAB) met on April 28-29, 2010, at the Double Tree Hotel, Oak Ridge, Tennessee. The Oak Ridge SSAB (ORSSAB) hosted the meeting. Participants included EM SSAB members and officers, Department of Energy (DOE) Headquarters (HQ) and field staff, and EM SSAB Deputy Designated Federal Officers (DDFOs), Federal Coordinators, administrators, and contractor support staff. The meeting was facilitated by Ms. Lori Isenberg.

Welcome and Opening Remarks

Ms. Catherine Alexander Brennan, the EM SSAB Designated Federal Officer (DFO), opened the meeting and welcomed the Chairs and presenters to Oak Ridge, Tennessee. Additional opening remarks were provided by Mr. Gerald Boyd, Manager, DOE Oak Ridge Operations; Mr. John Eschenberg, Assistant Manager for EM, DOE Oak Ridge Operations and DDFO for the ORSSAB, Mr. Tom Beehan, Mayor of Oak Ridge, Tennessee, and Mr. Ron Murphree, Chair of the ORSSAB.

Ms. Brennan provided an overview of the meeting objectives and officially called the meeting to order. Ms. Lori Isenberg was introduced as the meeting facilitator.

Mr. Eschenberg introduced Dr. Inés R. Triay, Assistant Secretary for Environmental Management.

Presentation: Update on the Office of Environmental Management - Dr. Inés R. Triay, Assistant Secretary for Environmental Management

Dr. Triay began by stating that over the past several months, EM has undergone a reorganization to streamline the decision-making process and improve communications between the field and HQ. She explained that the field managers have been reporting directly to Dae Chung, Principal Deputy Assistant Secretary for EM, as a first-level supervisor, and to her as the second-level supervisor. The two main senior executives at EM-HQ are Mr. Frank Marcinowski, Acting Chief Technical Officer, and Ms. Merle Sykes, Chief Business Officer.

EM's mission and priorities for the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development, production, and government-sponsored nuclear energy research remain unchanged across the complex.

These priorities include
- Improving project management
- Emphasizing a safe, secure and compliant posture throughout the EM complex
- Treating and disposing of tank waste
- Storing spent nuclear fuel (SNF)
- Dispositioning special nuclear material (SNM)
- Dispositioning transuranic (TRU) and low-level/mixed low-level waste (LLW/MLLW)
- Remediating soil and groundwater
- Deactivating and decommissioning (D&D) excess facilities

Historically, EM has received a solid grade regarding cleanup projects, but many of the program's construction projects are not meeting target dates and budget. For example, the Waste Treatment Plant (WTP) at Hanford, Salt Waste Processing Facility (SWPF) at SRS, and Uranium-233 (U-233) Facility at Oak Ridge have all surpassed the original baselines and cost schedules associated with the work scope. Construction projects currently comprise $14.3 billion of EM's life-cycle costs. EM is committed to improving project management and is restructuring the project portfolio to distinguish activities and operations from cleanup projects.

In conjunction with the portfolio restructuring, EM is working to get off the Government Accountability Office's (GAO) high-risk list. Secretary of Energy Steven Chu has asked the foremost experts in the Office of Science (SC) to consult with EM on project management. The GAO removed SC from the high-risk list because they routinely deliver construction projects on time and within cost. One tool that SC uses is construction project reviews (CPR), which consist of a team of experts being sent to a site to identify areas that need to be addressed before they becomes problems. EM has performed these reviews on all of the program's construction projects and is focused on making sure that recommendations associated with these reviews are implemented. Dr. Triay suggested that the Chairs look at completed CPRs to better understand within what context EM makes changes regarding the technical approach to the management of the projects.

Dr. Triay assured the Chairs that there is no milestone or work consideration more important than sending employees home as healthy and as fit as when they came in to work that morning. Safety statistics associated with the Recovery Act program are consistently as good as those of the base program.

In the area of tank waste, EM has completed 16 tank retrievals, but there are tanks remaining at both the Savannah River Site (SRS) and Hanford. EM needs to increase the level of performance, not only for tank retrievals, but also for enhancing the strategies to deal with the tank waste. EM is making investments in various waste disposition strategies, including alternative waste pretreatments, increasing waste loadings, improving vitrification capacity, and advancing simulation capability. A state-of-the-art advanced simulation capability has also been implemented as an approach for understanding and predicting contaminant fate and transport.

Ideally, the period of execution for tank waste will diminish significantly affording EM the opportunity to address remaining priorities such as unfunded liabilities and excess facilities that come from the National Nuclear Security Administration (NNSA), SC, and the Office of Nuclear Energy (NE).

With regard to SNF, EM has been able to transfer all of the SNF from wet to dry storage at the Hanford site, and close the K-East Basin. It is expected that all of the SNF that EM owns at the Idaho National Laboratory (INL) will be transferred from wet to dry storage by the end of Fiscal Year (FY) 2010.

In terms of soil and groundwater remediation, EM has treated over 240 square kilometers of contaminated groundwater and stabilized more than 180 contaminated plumes. The progress will be furthered by footprint reduction.

EM's commitment to meeting compliance agreements remains intact. There are currently 36 agreements with federal and state regulators. In FY 2009, EM met 95% of the 176 major enforceable agreement milestones. The program's goal for FY 2010 is to meet 100% of the 137 major enforceable agreement milestones. The addition of the American Recovery and Reinvestment Act (ARRA) funds also permitted EM to meet countless compliance milestones. EM believes that many of the tools used in conjunction with the Recovery Act can be exported to the base program to expedite the decision making process and complete work in a shorter period of time.

To date, 99% of the $6 billion awarded under the ARRA has been allocated to the sites and 97% has been obligated. EM has been able to cost over $1.7 billion of those funds. During FY 2009 the program achieved 136% of small its business goals. As of the second quarter FY 2010, the Recovery Act has recorded more than 10,000 full-time equivalents (FTE), which includes over 5,600 prime contractor FTEs and over 4,300 subcontractor FTEs. However, these FTEs do not constitute hired personnel alone, but rather a combination of new hires, saved prime jobs, base employees transitioned to ARRA work, staff augmentation, and other employees. The use of proven technologies as well as an established regulatory framework has allowed workers to seamlessly join EM's cleanup effort. ARRA also allowed EM to provide funding for lower-risk activities and footprint reduction.

Originally, the EM complex encompassed more than 3,000 square miles, which was reduced dramatically to 900 square miles. EM's goal is to further reduce that footprint by 40% by FY 2011 and 90% by FY 2015. In addition, EM is working to accelerate the disposition of TRU waste inventories by seven years at 11 sites and to complete legacy cleanup at Brookhaven National Laboratory, Stanford Linear Accelerator, and the Separations Process Research Unit. Accelerated cleanup associated from the Recovery Act will demonstrate a return on investment for taxpayers through significant cost savings. EM is going to save approximately $4 billion in direct costs associated with the life-cycle and avoid another $3 billion. The return on investment for the initial $6 billion of ARRA dollars will be $7 billion.

Dr. Triay emphasized the importance of working with the stakeholders to establish future visions for the vast tracts of land EM is working to cleanup. The Office of Legacy Management (LM)

will work with the stakeholders on legacy management issues and ensure that the community visions for use of these assets are implemented. Dr. Triay thanked the Chairs for their contributions and support to EM in the form of continuing dialogue and recommendations. Independent advice is all important for the effectiveness of EM program.

Discussion

Ms. Susan Leckband, Chair of the Hanford Advisory Board (HAB), remarked that at Hanford the WTP processes were being designed to meet the waste acceptance criteria for Yucca Mountain, which is no longer a viable option. It appears that SRS is moving forward with tripling the waste load in its glass facility. She asked what the public can do to move forward with Hanford's vitrification facility WTP.

Dr. Triay responded that it will be many years before the issue of the geologic repository is on a critical path. However, EM has been refining waste strategies at SRS for over a decade and now must process salt waste associated with the tanks. In order to ensure that the SWPF does not have any delays in becoming operational, EM is exploring advanced treatment technologies. Dr. Triay explained that generating a borosilicate glass at SRS for the high-level waste (HLW) will be extremely protective of human health and the environment. Borosilicate glass is an international standard for vitrification and other glass forms can be measured against it.

EM will implement tank waste strategies at Hanford's WTP that are similar to ones used at SRS. The current platform at Hanford for the vitrification plant is to produce borosilicate glass for HLW. Technology has advanced substantially over the last decades, and it will be of great importance to discuss technical innovations with the public every step of the way. The treated waste forms at Hanford will be very robust and can be tested for performance. Regardless of the Blue Ribbon Commission's recommendation, EM will be poised to utilize any future solution that is found for disposal of HLW.

Mr. Ralph Young, Vice Chair of the Paducah Citizens Advisory Board (Paducah CAB), asked which office within DOE is going to run the Energy Parks Initiative.

Dr. Triay explained that the Under Secretary of Energy Kristina Johnson has taken an interest in assisting with the future reutilization of land that is being made available through EM footprint reduction. Under Secretary Johnson has asked that EM provide her more specific examples of potential reuse of these assets. Dr. Triay indicated that a task force will likely be formed by the Office of the Under Secretary to develop a vetting process for DOE, the Office of Management and Budget (OMB), and other parts of the Administration to ensure support of the communities' vision for reusing these assets.

Mr. Kevin Westervelt, Vice Chair of the ORSSAB, commented that Oak Ridge experienced issues with the poor surveillance of deteriorating buildings over the years that resulted in safety problems. He asked if EM is doing enough to prevent those problems from recurring.

Dr. Triay stated that the surveillance of excess facilities is important in order to avoid increased costs for D&D. Funds must be allocated both for cleanup and for surveillance. Dr. Triay

explained that she would be working closely with field managers across the complex to strike the right balance between the surveillance and cleanup.

Ms. Leckband commented that in the past the HAB has struggled with knowing which priorities to reference when providing guidance for the budget. She asked how the HAB can provide guidance for the budget when direction from EM-HQ is not promptly received.

Dr. Triay agreed that the sites must approach the community as well as the regulators and local advisory boards, with clear articulation of budget priorities. She assured the Chairs that it was not too late to provide input on the FY 2012 budget and that EM is going to make sure an opportunity is given for input on priorities. The sites have been asked to fully disclose their planning with respect to resources that EM needs in order to perform cleanup work. Dr. Triay encouraged the Chairs to provide input as to whether the budgetary information being distributed to the local boards is useful. Dr. Triay stated that EM understands the importance of the local boards' participation in the budget and planning process and wants the process to be transparent at the site level.

Ms. Judy Clayton, Chair of the Paducah CAB, commented that while on the tour of the Oak Ridge Reservation she was saddened about the loss of resources used to build the K-25 facility. She asked if EM could find the opportunity to reuse resources and save them for future generations.

Dr. Triay responded that she will work closely with the Portsmouth (PORTS) SSAB and the Paducah CAB to see whether a vision can be established for recycling. Ms. Christine Gelles, Director for the Office of Disposal Operations, has been asked to be the EM-HQ contact for that particular endeavor. A major challenge of metal recycling is limiting how the recycled material is used. Materials that have been previously exposed to radioactivity may not be appropriate for reuse in many applications. In addition, manufacturers of metals and metal products to the construction industry feel that by reutilizing government assets, EM would be endangering their business. In order to move forward with a recycling vision or reutilization of assets, EM needs to define a clear path forward.

Ms. Isenberg pointed out that a number of the Chairs' topics of interest were addressed during Dr. Triay's presentation. She announced that the Chairs would be provided an opportunity to share the current top three issues facing their sites as well as significant local board accomplishments and activities.

Round Robin: Top Three Site-Specific Issues, Accomplishments, and Board Activities

<u>Hanford Advisory Board – Susan Leckband</u>

1. The 2015 central plateau cleanup vision and strategy culminate with a 15% reduction of 586 square miles.
   - There will be a number of Records of Decision (ROD) and changes to the Tri-Party Agreement (TPA) that may act as a catalyst for HAB advice.
   - More characterization is needed to support the remedy selections that will be identified as a result of the RODs.

2. The HAB recently provided advice and held a meeting to discuss the draft Tank Closure and Waste Management Environmental Impact Statement (EIS). The board requested that the EIS be issued for another public review prior to finalization, following the comment period for the current draft.
3. Two pieces of advice and one letter were sent to DOE regarding concerns with the beryllium program at Hanford. The Office of Health, Safety and Security performed an independent review of the beryllium program and included stakeholders in the interim briefings.

Accomplishment: The HAB reached consensus on advice regarding the draft Tank Closure and Waste Management EIS by using a special one-day board meeting.

Major Board Activity: The board participated in a workshop designed to help the public understand the draft Tank Closure and Waste Management EIS, and a follow-up HAB full board meeting was held to identify values for advice.

Idaho National Laboratory Site EM Citizens Advisory Board – R.D. Maynard and Willie Preacher

1. The Idaho National Laboratory Site EM Citizens Advisory Board (INL CAB) is dissatisfied with budget requests to fund and reach regulatory milestones. Specific concern has been raised regarding the treatment of calcine and packaging of SNF to ensure compliance with the Idaho Settlement Agreement.
   - The site will not be able to follow through with contract commitments to CH2M-WG Idaho and complete the scope of work that began in 2005 under the current budget requests for FY 2010 and FY 2011.
   - A special designation of $25 million for design funding of the calcine project will allow the site to move forward while remaining compliant.
2. Transparency and stakeholder involvement with regard to the HLW repository are issues that the INL CAB would like to see addressed once the Blue Ribbon Commission is established.
3. Funding for long-term liabilities and unfunded liabilities continues to be a concern.
   - The site has developed a baseline cost estimate of $450 million for FY 2013. The INL CAB recommends staying with the $450 million baseline through 2035.

Accomplishment: The board passed two significant recommendations. One concerned the Experimental Breeder Reactor-II engineering evaluation/cost analysis and the other focused on the FY 2011 and 2012 work plans.

Community Advisory Board for Nevada Test Site Programs – Walter Wegst

1. Availability of MLLW disposal cells.
   - The current MLLW disposal cell is closing in November 2010, and the transition to the new cell is planned for early 2011.
   - DOE is currently applying for a permit to establish an interim storage site to hold the MLLW waste.
2. Revised groundwater characterization strategy.

- Concern for public protection with regard to contaminated groundwater remains a high priority. ARRA funding allowed DOE to drill a monitoring well this year, rather than next year, as originally scheduled.
- DOE began implementing the revised groundwater characterization strategy, which allows for more decision points throughout the modeling of the Nevada Test Site's (NTS) diverse hydrogeology. The strategy is shifting from development of models to application of the models for groundwater, and determining if the models are reasonably accurate in predicting contamination limits.
- The Community Advisory Board for Nevada Test Site Programs (NTS CAB) is currently reviewing and preparing a recommendation for ways the DOE could enhance the new strategy.

3. Membership appointment process and timing.
   - Board recruitment efforts have been affected by length of the EM-HQ appointment process.
   - The Nevada Site Office submitted a membership packet to EM-HQ on December 30, 2009, and the appointments are expected to be in May 2010.
   - Potential members are discouraged due to length of appointment process.

Accomplishment: The NTS CAB has transitioned from a committee-based work plan to a full board work plan, resulting in a more informed board with ownership of tasks. The board has also submitted as many recommendations in the first six months of FY 2010 as in all of FY 2009 and has accelerated the work plan completion schedule.

Major Board Activities: A University of Nevada, Las Vegas questionnaire showed that members of rural communities surrounding the site view the board as a positive source of information. Outreach efforts are being made to increase public awareness of the NTS CAB. Among them is the creation of a portable display. Membership recruitment resulted in 11 new candidates. In addition, a student liaison position has been developed for the board. Staff is currently developing a more comprehensive orientation for all new members.

Ms. Leckband expressed interest in the NTS CAB's transition from committee-based work plans to a full board work plan. She asked if this process has led to longer or more frequent board meetings.

Dr. Walter Wegst, Chair of the NTS CAB, responded that the meeting where the board sets up the collective work plan for the next year is longer than a normal board meeting. The board's Executive Committee is eliminating sub-committees because members from outlying areas find the meetings difficult to attend.

Ms. Brennan noted that EM-HQ is working with the sites on collapsing the up-front time for submitting packages, which includes the interview process and collecting applications. DOE's Committee Management Office requires a certain period of time for review, and EM-HQ staff is working within those parameters. Packages have generally been turned around in about three months.

<u>Northern New Mexico Citizens' Advisory Board – Robert Gallegos</u>

1. EM provided full baseline funding (base program) for FY 2012 and beyond to meet the cleanup schedule of the New Mexico Order on Consent.
   - The site is approximately $400 million away from being compliant with the consent order.
   - Removal of remaining TRU waste from the Material Disposal Area (MDA) G.
2. EM should focus on continued development of an integrated site-wide surface water and groundwater monitoring program.
   - A number of new monitoring wells were drilled in strategic places without the use of drilling muds and have greatly improved the quality of the data being collected.
3. Complete cleanup of MDA-B and the continued cleanup of building TA-21 and MDA-G.

Accomplishment: The Northern New Mexico (NNM) CAB approved a recommendation to remove 33 shafts of remote handled (RH) TRU waste from MDA-G.

Major Board Activity: The board has been at the forefront of safeguarding the water supply in communities reliant on the Rio Grande Basin. The City of Santa Fe is in the midst of constructing a 15-million gallon water treatment plant located below Los Alamos Canyon. DOE has been helpful in putting up safeguards to slow canyon-sediment runoff. Early-warning and long-term monitoring systems are being installed to track contaminants coming from the canyons before they get into the water supply.

<u>Oak Ridge Site Specific Advisory Board – Ron Murphree</u>

1. Budget and associated milestone issues.
   - A balance between budget allocations needs to be established to ensure appropriate progress on East Tennessee Technology Park closure along with Federal Facility Agreement cleanup plans at Oak Ridge National Laboratory (ORNL) and Y-12.
   - There is concern that future budgets will be inadequate to accomplish cleanup commitments and goals.
   - The site's funding has declined in recent years while scope has increased, which is affecting milestones. Regulatory disputes have arisen over milestone commitments.
2. Technetium-99 contamination of the K-25 building significantly increases the cost for D&D.
   - The original cost to for D&D of K-25 was $400 million, and it is approaching now $1 billion, which represents a 250% increase.
3. Re-compete for the Oak Ridge EM program contract.
   - The ORSSAB will review the request for proposals (RFP) for the follow-on contractor and comment on the contractor's responsibilities for public outreach and community involvement.

Accomplishment: A positive response was received from the site to the board's recommendation that an abbreviated Quarterly Project Review (QPR) be generated. DOE has been very cooperative in providing abbreviated QPRs to the board.

Major Board Activity: Planning for the spring EM SSAB Chairs' Meeting.

Paducah Citizens Advisory Board – Judy Clayton and Ralph Young

1. Provide complete funding for the accelerated remediation of solid waste management unit (SWMU) 4 at the Paducah Gaseous Diffusion Plant (PGDP).
   - SWMU 4 contains degraded drums of Trichloroethylene, which is a highly mobile and highly toxic solvent. Contamination of the primary and secondary sources of the Southwest Plume.
   - Acceleration of this project allows for use of a trained workforce to reduce further contamination to the regional groundwater aquifer and lowers the risk to human health, safety and the environment.
2. Continue DOE's commitment to involve stakeholders and the community in decisions concerning need, location, and waste acceptance criteria for a potential Comprehensive Environmental Response, Compensation and Recovery Act (CERCLA) cell.
   - It is imperative that DOE convince the community that a potential onsite waste disposal facility would be safe and would not have a deleterious effect on the future use of the site.
   - Information presented in public meetings should be in layman's terms.
3. Ensure that DOE commits to maintain site funding at or above current baseline levels.
   - ARRA funding has provided acceleration for remediation work from out-year baseline schedules, potentially accelerating the entire project at the PGDP.
   - Any reduction in future baseline funding could negate gains made from stimulus work and lead to potential increases in life-cycle costs for PGDP.
   - Maintaining the baseline funding allows DOE to accelerate the entire project and reduces risk to human health, safety and the environment while supporting workforce stability.

Accomplishment: The Paducah CAB approved a recommendation endorsing the collaborative effort between DOE and regulatory agencies that enabled the swift relocation of the northwest plume pump-and-treat extraction, leading to increased TCE removal rates.

Major Board Activity: The Paducah CAB approved a speaker's bureau presentation as part of a renewed community outreach effort. A full calendar of speaking dates is being finalized.

Ms. Judith Greene-McLeod, member of the SRS CAB, commented that the board previously had a speaker's bureau, but it fell by the wayside. She asked Ms. Clayton for ideas or suggestions to revitalize the speaker's bureau.

Ms. Clayton responded that the Paducah CAB established the bureau by compiling basic information about the board and then utilizing contacts at the local community college and Rotary Club.

Portsmouth Site Specific Advisory Board – Richard Snyder and Larry Parker

1. The PORTS SSAB requested that DOE find a pathway to reclaim asset metals prior to beginning D&D of the gaseous diffusion plant at the site.
   - A plan should be implemented that would allow DOE to accumulate asset metals, avoiding the potential loss of these assets during the initial stages of D&D at the site.

- The site consists of 96 acres or eight million square feet that will be involved in the D&D. It has been estimated that there may be as much as a million cubic yards of scrap metal.
- Any decisions concerning metals reclamation should equally weigh human health and safety with economic savings and benefits to the community.

2. EM's continued involvement with the community in developing a broad future plan for the site.
   - The PORTS SSAB has been a proponent of a plan that maximizes the potential for economic development and reindustrialization.
   - DOE has recently awarded a grant to Ohio State University to help conduct a community-wide future use study. The PORTS SSAB will be providing input to EM on the study's guidelines and eventual output.

3. EM's evaluation of the 3,700-acre reservation and the immediate release of available land by DOE to the local reuse organization.
   - The immediate footprint reduction benefits EM by decreasing surveillance and monitoring costs as well as benefits the community by providing maximum acreage for reindustrialization efforts.
   - The PORTS SSAB recommends further studies to determine the potential release of additional land as it becomes available over the next 20 years.

Accomplishment: As a result of the PORTS SSAB expressing a strong desire to see a plan from DOE that maximizes the future use of the site, Ohio State University has been asked to conduct a regional study summarizing public input on future use scenarios.

Major Board Activity: The PORTS SSAB visited several sites, which educated the board on cleanup work scope and methods. These trips allowed the board to provide better advice and recommendations to EM.

<u>Savannah River Site Citizens Advisory Board - Manuel Bettencourt and Judith Greene-McCloud</u>

1. Resolve the major legacy of nuclear weapons production at SRS by treating and disposing of liquid waste and closing tanks.
   - Safely treat and disposition 37 million gallons of radioactive liquid waste and close 49 additional underground storage tanks.
   - Execution of the Life-Cycle Liquid Waste Disposition System Plan is underway to accelerate tank closures and utilize key technology deployments.
2. Consolidation and disposition of plutonium.
   - Discussion of plutonium storage and disposition plans at the SRS date back to the mid-1990s. The board first made a recommendation concerning this issue in 1997.
   - In December 2003, the Defense Nuclear Facilities Safety Board urged DOE to expedite the development of a complete, well considered plan for the disposition of all excess plutonium to preclude unnecessary extended storage of plutonium at SRS.
   - DOE needs to finalize plans for the disposition to preclude unnecessary extended storage of plutonium.

3. Lack of a federal repository for nuclear waste disposition and storage.
   - The waste content of the Defense Waste Processing Facility (DWPF) canisters has been formulated based on the waste acceptance criteria for Yucca Mountain. Another federal waste repository designed to the same specifications as Yucca Mountain would take decades to complete.
   - The communities believe that the site will be a de-facto long-term waste storage site if a federal repository for nuclear waste does not become operational.
   - The State of South Carolina has been promised by DOE that the state will not be used for long-term storage of plutonium or other HLW.
   - Continuing to store waste at multiple sites around the country is a safety and security concern.

Accomplishment: The SRS CAB recommended that EM implement site-specific metrics to fully communicate the quantitative progress to the public regarding environmental restoration, D&D, waste management operations, nuclear material disposition, and ARRA spending. Beginning in January 2010, the board will receive quarterly updates. The site-specific performance measures track the history, actuals, target, and end state for each measure.

Major Board Activity: The SRS CAB supported and participated in the U.S. Environmental Protection Agency (EPA) Superfund job training efforts to provide jobs for under-served citizens. Additionally, the board continued the educational workshop series on technologies for the soil and groundwater cleanup efforts.

Mr. Harold Sullivan, Vice Chair of the NTS CAB, asked if the laws regarding asset metals reclamation deal mainly with radioactivity rather than other types of contamination.

Dr. Triay responded that radioactivity is the main issue with recycling metals. Previously, EM was prepared to recycle nickel, and there was a tremendous push-back because of the amount of residual radioactivity left in the nickel before recycling.

Ms. Brennan introduced Ms. Joann Luczak, Deputy Assistant Secretary for Program Planning and Budget and Ms. Connie Flohr, Acting Director for the Office of Budget.

Presentation: EM Budget Update – Ms. Joann Luczak, Deputy Assistant Secretary for Program Planning and Budget

Ms. Luczak began by stating that she would discuss highlights from the FY 2011 budget as well as the FY 2012 budget planning process, strategies and objectives. The priorities of the FY 2011 budget are the same for the FY 2012 budget. Funding for EM has remained essentially level and the FY 2011 budget request is level with the FY 2010 enacted appropriation. EM did not see the reductions and changes that other programs experienced in FY 2011.

Ms. Luczak addressed Ms. Leckband's comment regarding budget-related recommendations and the necessary process to provide timely and meaningful input. She acknowledged that budget deadlines are very tight. EM's budget guidance for FY 2012 was sent out on April 23, 2010 and

reaffirmed that the Office of Budget would work to ensure a timely exchange between the local boards, the sites, and EM-HQ.

Ms. Luczak provided interim dates for FY 2012 budget activities. The sites will provide their budget requests to EM-HQ on May 5 and EM will lay out the budget to the Undersecretary for Energy Programs on May 20. During this time EM will describe the budget drivers and outline the process, deliverables, related compliance requirements and associated concerns. May 25-27, the EM budget managers will have two three-hour sessions with Dr. Triay to discuss the FY 2012 budget and compliance milestones and technological problems that could affect out-year budgets. In early June the EM budget is sent to the Chief Financial Officer (CFO). In early September, DOE submits the budget to the OMB and a pass back is provided in late November. The budget is scheduled for delivery to Congress on the first Monday in February 2011.

Ms. Flohr explained that the embargo date of May 5 precludes release of specific funding levels and funding targets outside of DOE that are being submitted to HQ by the sites. That does not mean that the local boards cannot still interact with their sites and provide input on priority activities. It is the site's responsibility to consider this input for their budget submittal to headquarters. Dr. Triay has very specific program priorities, which means that the sites generally have a footprint reduction vision and steps to be taken toward it. Regardless of funding level, the priorities remain, and the local boards, at any time, can talk with the sites about priorities, irrespective of the funding discussion.

Ms. Luczak noted that EM-HQ expects that the sites will begin their planning and business case development process in February and will begin involving stakeholders at that time. She stated that she would take into consideration forming a workshop for the development of best practices for budget input. The workshop would develop best practices by looking at sites with a robust vetting process that others can learn from, and perhaps begin to operate with a more collaborative approach.

Dr. Wegst asked for a definition of the budget embargo and pass back.

Ms. Luczak responded that every agency in the federal government submits a budget request to OMB and after review the agency receives a budget number that reflects the Administration's policies and priorities. That number is the pass back from OMB. Furthermore, if the OMB number is not the same as the requested amount, OMB provides the Administration's policy guidance and the rationale for the reductions or increases in the budget. The pass back number cannot be released to the public and becomes embargoed from release because changes can be and often are made after the OMB pass back. The budget numbers are not finalized until early January.

Ms. Flohr noted that there is back and forth between OMB and the agency even before the pass back. When the OMB pass back is received, the agency must use the numbers in the pass back for the budget that goes to Congress. The budget is then deliberated and the different versions of the House and Senate appropriations bills are reconciled. A bill is voted upon and then the agency receives the appropriation. The embargo, in large part, allows these processes to move forward in an orderly fashion and not to get short-circuited. In FY 2011, EM's budget pass back

from OMB was significantly less than the OMB target. Three days before EM was supposed to submit the budget to CFO for transmittal to the Congress, EM had another billion dollars added to its requested budget.

Ms. Luczak presented a chart illustrating EM's spending levels by state, with the greatest expenditures being over $1 billion, in Washington and South Carolina. She also displayed a chart showing the sites' FY 2009 and FY 2010 requests and enacted appropriations, as well as the FY 2011 budget requests.

At Idaho for FY 2011 there is about a $57 million decrease. The driver there is the sodium bearing waste facility. There was a major budget increase to finish construction in FY 2010, and the site is going into a ramp-down mode. The $6.5 million request for FY 2011 is to cover preparation for testing and hot startup.

At Hanford, annual WTP funding is normally about $690 million. In FY 2011, the request supported a $740 million effort. The additional $50 million is to cover costs necessary to mitigate any technical issues that are encountered in the design of the waste treatment plant. EM wants to get ahead of design needs to accelerate the design effort.

At Portsmouth, a significant funding increase of $176 million will allow accelerated D&D at the site. This could represent a 15-to-20 year acceleration, which will go a long way to reducing the cost and life-cycle changes that are occurring at the site.

The last major budget shift over the period is a program direction cut. This cut is a non-labor payroll reduction for expenses associated with such things as support services. It is not a cut in full-time employees. The FY 2010 appropriation is $345 million, and the FY 2011 request is $324, reflecting a $21 million cut. EM has a March 31, execution date, and attention is focused on how to keep program activities from being disrupted.

The FY 2011 budget reflects a major effort to invest more in technology development efforts that will benefit EM. A particular emphasis has been placed on transformational technologies that will reduce risk and cost. For example, the Office of River Protection at Hanford has $60 million for tank waste retrieval technologies. In addition, the Technology Development and Deployment program has $25 million for developing integrated computer modeling capability to understand and quantify the subsurface flow and contaminant transport behavior in complex geological systems.

Next, Ms. Luczak turned her attention to the FY 2011 and FY 2012 budget cycles and Dr. Triay's emphasis on improving project management. GAO and the National Academy of Public Administration have both singled out EM and NNSA for being on the high-risk list for project management. SC has been removed from the high-risk list in recent years, and EM is working with SC and others to learn from their project management strategies, focusing on areas that have been identified as needing work. SC has already made several observations concerning EM's project structure of project baseline summaries.

These observations include:

- EM projects are too large, which makes it difficult to properly scope operating activities related to the capital asset activities of those projects. This is a major EM effort.
- Large project sizes make it difficult to isolate issues of cost, schedule and budget.
- Large project size also masks individual progress in one area, as opposed to another, and makes it difficult to address issues before the end of the project cycle.
- Maintain the integrity of the life-cycle cost estimate.

In March of 2010, Deputy Secretary of Energy Daniel Poneman issued Departmental policy guidance intended to assist EM in identifying issues sooner. The guidance stresses committing to improving project management, facilitation and effective management of cost, scope, schedule, and risk. Additionally, projects will be broken down into more discrete elements. Periodic project reviews are conducted every six to nine months, and the project health is evaluated from several aspects: scheduling, deliverables, procurement and acquisition. If problems are ascertained, work begins to figure out the solution, in order to reduce risk early on, and provide a timely solution.

Ms. Luczak summarized that EM began the process of restructuring its program to clearly differentiate capital asset projects from non-capital asset activities to improve project management. The new project structure consists of capital asset projects (construction and cleanup projects) in one subcategory and operations activities and programs (disposal and retrieval activities, landlord activities and site services). Benefits that are sought are performance based, as well as transparent from an accountability standpoint.

Discussion

Mr. Young asked if Ms. Luczak could determine the size of the optimum projects.

Ms. Luczak responded that she would take that question as an action item.

Mr. Young asked when projects were capitalized, and what the depreciation schedule was for such projects.

Ms. Luczak responded that because she is not an expert in construction project management and how depreciation works, she would get back to the group with information on the subject.

Mr. Manuel Bettencourt, Chair of the SRS CAB, commented that other government agencies tend to operate on operations and maintenance basis rather than research and development schedules, and that it appeared EM is moving more in that direction.

Ms. Luczak affirmed that there is a shifting of categorization. EM has taken line item construction projects, which adhere to their baselines, and there is a clear path forward through the process. Other operating-type projects are capital asset projects. The focus there is to use a tailored approach that puts them in smaller, discrete elements, to make them more manageable in terms of estimating costs, and anticipating that anticipated progress, schedules, and milestones.

Ms. Leckband returned to the subject of budget guidance, noting that in years past it was received in February, which allowed for public workshops and input to the site management

before it sent its priorities to EM-HQ. The HAB takes its obligation to involve the public very seriously. Guidance for input needs to come before the site submits its budget. In past years the site had shared its integrated priority list with the HAB, but has not in the last several years. When the list was shared, the board gave its input on the ordering of priorities for various levels of funding. That input was delivered before the embargo.

Ms. Luczak acknowledged the short time between budget guidance and the site's integrated priority list submission is in fact too short a time for input. The sites were asked recently to begin their process toward setting budget priorities in February and to include all stakeholders from the start.

Ms. Flohr noted that the CFO issues guidance in February for deliverables outside of the priority list and other information for EM to build its budget and satisfy the requirements of the guidance. This year there were delays because EM, going into the FY 2012 budget cycle, was looking at how to budget now that supplemental funds from the Recovery Act are no longer available. For FY 2010 and FY 2011, EM had an additional $6 billion, and it has made a big difference in what was put in the base budget.

Ms. Luczak acknowledged that the previous year's EM guidance was late as well, but she didn't believe this was setting a trend. The FY 2011 guidance went out in June 2009, because of late Administration budget submittals and the Congressional schedule. She promised to work on a closer basis with all site counterparts and would look at a budget workshop toward best practices for stakeholder input on a budget. Even if the Office of Budget cannot get out full-blown guidance in March, it can provide modified guidance.

Mr. Richard Snyder, Co-Chair of the PORTS SSAB, asked if surveillance and maintenance is in the operational side of that chart for D&D.

Ms. Luczak confirmed that surveillance and maintenance is in the operational side of that chart for D&D.

Ms. Brennan noted that a similar discussion took place at the previous Chairs' meeting in Idaho, where Mr. Rick Provencher, DDFO for the INL CAB, pointed out that he saw the need for the site to engage stakeholders earlier than March because the sites are already grappling with different scenarios for funding, long before their budget deadlines are coming up and long before they receive specific guidance from EM-HQ. Ms. Brennan commented that the local boards need to have discussions with site managers or assistant managers as to the best time for input. She asked the DDFOs in attendance if they could set up schedules that will work into the site budget processes better, so that stakeholder input is not dependent on EM-HQ deadlines.

Mr. Dave Adler, ORSSAB Alternate DDFO, indicated that Oak Ridge has an ability, absent the provision of planning targets, to create scenarios that speculate as to the impacts of various potential budget targets. Computer models are used to run that information, so Oak Ridge can involve stakeholders earlier in the process, in fact almost at any time. He asked for clarification on the embargo, whether the information cannot be released once the actual funding target is provided to the sites.

Ms. Flohr stated that while the sites cannot say what the target number is, for example, $450 million, it can show a list that shows projects totaling an estimated $520 million and then ask stakeholders about priorities at any given levels. The site can show dollars associated with projects before the site's budget submittal to EM-HQ. It cannot show its target funding that comes from EM-HQ.

Ms. Leckband stated that she did not think this was clear to the site managers because she believes they are waiting for EM-HQ guidance before involving stakeholders.

Ms. Flohr noted that the sites should not be waiting and that it has been discussed with the site managers.

Ms. Melissa Nielson, Director of the Office of Public and Intergovernmental Accountability, thought it would be more successful if the Chairs discussed a process with their field managers at the same time Ms. Luczak and Ms. Flohr work with the site budget managers on moving forward earlier. She encouraged the boards to initiate the budget discussions next January or February with the sites.

Ms. Brennan introduced Mr. Mark Janaskie from the Office of Strategic Planning and Analysis.

Presentation: EM Strategic Planning Update – Mr. Mark Janaskie, Office of Strategic Planning and Analysis

Mr. Janaskie began his presentation by giving the history of excess facility transfers. In December 2007, former Assistant Secretary Rispoli requested that DOE program offices and NNSA nominate facilities, materials and wastes for possible transfer to EM. The request was directed by former Deputy Secretary of Energy Clay Sell under Program Decision Memorandum EM-08-12, Rev. 1, in August 2006. In FY 2008, the House Energy and Water Development Committee directed DOE to produce a report to Congress identifying the potential scope of new liabilities that EM could assume in the future. In early 2008, NE, SC and NNSA submitted candidates for possible transfer.

Approximately 340 facilities, materials and wastes were submitted by the three programs for possible transfer to EM. Eleven individual sites were represented. From April-September 2008, each proposed facility was assessed by an EM technical team of subject matter experts. Assessments included a comprehensive evaluation of the current conditions of a candidate facility. Materials and wastes were inspected in a similar manner. Candidates for transfer were evaluated against established DOE Orders, Guides and policies to determine their suitability for transfer into the EM Program. DOE O 430.1B lays out the formal transfer process.

Mr. Janaskie shared the criteria used by EM to determine the suitability of transfer of an excess facility to EM. The facility must be "mission contaminated," which is defined as chemical and/or radioactive contamination resulting from mission operations and not from construction activities and associated materials, such as asbestos, lead-based paint and polychlorinated biphenyl. The facility must be certified as excess to DOE mission needs. The facility must be a

stand-alone building and not a room, wing or annex of a larger operating complex. If a portion of an excess facility is proposed for transfer, a physical segregation of common systems (e.g. ventilation, utilities and infrastructure) shall be accomplished and/or funded by the current owner requesting the transfer.

Criteria used to evaluate materials and wastes for possible transfer to EM and that specific material or waste must be excess, and not a strategic asset that must be retained. The waste or material must be defined as TRU or require disposition at the Waste Isolation Pilot Plant (WIPP)**.** The materials and wastes require specialized treatment and/or processing with no existing disposition path, thereby requiring EM expertise. Transfer of SNM and SNF are negotiated on a case-by-case basis.

In February 2009, EM agreed to accept more than 70 excess facilities, materials and wastes from NE, SC and NNSA. Dr. Triay sent individual memos to each of the three programs identifying the excess facilities, materials and wastes that EM agreed to accept. Transfer agreements, however, mandate that the current owner retains ownership of the excess item until funding is available to begin cleanup work. Until that time, the current owner is responsible for all surveillance and maintenance costs. These 70-plus excess facilities are separate and in addition to the excess facilities that EM has agreed to accept within the Integrated Facilities Disposition Project (IFDP) at Oak Ridge. There are more than 200 facilities from SC, NNSA and NE included in the IFDP.

Several proposed candidates were rejected by EM because the facilities did not meet specific transfer criteria, as listed in DOE Order 430.1B. Additionally, materials that did not require EM's technical and management expertise and could be readily disposed by their current owners were also rejected. Other proposed items, namely SNM and SNF, present significant financial implications for both EM and DOE. High-level DOE decisions will be required to determine the final disposition of SNM and SNF.

Mr. Janaskie noted that the ARRA funding has allowed EM to accelerate the safe and timely disposition of excess facilities and waste. Under ARRA, 55 excess facilities are undergoing D&D, and the disposition of RH TRU at INL is being accomplished. In addition, six facilities are undergoing legacy materials cleanout in preparation for future D&D. Five sites have ARRA funding for cleanup of excess transfer scope. Post-ARRA, 47 excess facilities/materials/wastes will remain in the scope that EM agreed to accept from NE, SC and NNSA. Given the existing cleanup priorities within EM's current budget profiles, the earliest that EM can address any more of these unfunded liabilities is FY 2017.

Mr. Janaskie concluded that EM continues to work with NE, SC and NNSA to determine how best to address the remaining excess facilities, materials and wastes that EM has agreed to accept. Specifically, EM is working with the other programs to prioritize the remaining scope, based on risk and programmatic need. EM plans to raise these needs in the budget formulation process if certain facilities, materials, or wastes cannot wait until FY 2017.

Discussion

Mr. Snyder asked what the operator has to do if a facility is not mission contaminated, but stems from construction activities.

Mr. Janaskie responded that the facility is the owner's responsibility and it cannot be transferred to EM as a liability.

Mr. Young asked if budget funding was provided before or after the formulation of the facility transfer list.

Mr. Janaskie commented that the list would drive the funding.

Mr. R.D. Maynard, Chair of the INL CAB, stated that NE has SNF that it wants to transfer to EM, but there has to be funding available. He asked if the SNF would be considered an unfunded liability.

Mr. Janaskie noted that if NE is not getting appropriations for SNF, it may be an unfunded liability.

Ms. Flohr commented that NE should be requesting funding to cover the surveillance and maintenance of the facilities until such time that EM can assume responsibility. Idaho has to submit the request to EM as part of its integrated priority list. The SNF may come to EM as an over-target request because it is not part of portfolio yet. The first year an activity requests funding after transfer, the request is over-target. Once a site is submitted to EM for consideration, Dr. Triay reserves the right to fund it as one of her prioritized activities. She pointed out that the term unfunded liability is obsolete and the preferred term is excess facility.

Mr. Maynard asked if it was possible for EM to transfer facilities to NE.

Mr. Janaskie responded that at Idaho, several mission-critical facilities were transferred from EM to NE, but they were not considered excess and are not part of the excess facility transfer process described in the subject presentation. Only facilities from other programs wishing to transfer into EM are part of this subject area.

Ms. Flohr commented that when a facility comes to EM, the CFO is supposed to transfer to EM the target funding for the surveillance and maintenance costs for the next five years.

Ms. Leckband asked if EM funding will be used to demolish NNSA buildings.

Mr. Janaskie replied that EM is simply agreeing to accept these buildings in the future because they meet the criteria. EM will not formally accept a building unless funding comes with it, either from the current owner or from a new Congressional appropriation. There will not be any transfer of funds from the baseline to demolish NNSA, SC, or NE structures.

Mr. Bettencourt stated that based on a recommendation that the SRS CAB made, NNSA now owns a building that EM used to own, and is using it to manage part of the mixed oxide fuel facility construction.

Mr. Janaskie pointed out that it is possible for EM to transfer a facility to NNSA. In the referenced case at SRS, the facility would not be categorized as excess as it is able to be utilized by another program office. For EM, only facilities from other programs wishing to transfer into EM are part of this excess facility program.

Mr. Murphree asked about the status of the IFDP projects.

Mr. Janaskie indicated that EM agreed to accept the IFDP projects, but that surveillance and maintenance responsibility remains with the current owner until it is transferred to EM.

Mr. Snyder asked if the Office of Strategic Planning and Analysis is involved with facilities that are leased by DOE to private entities.

Mr. Janaskie responded that the office is not currently involved with any such facilities, including the United States Enrichment Corporation.

Mr. Maynard asked if it is correct that INL has 18 remaining excess items that cannot be added to the budget until 2017.

Mr. Janaskie responded that with the current scope of existing work, it would not be possible to add these facilities now.

Mr. Maynard asked how these items will be added if the budget continues to decrease each year.

Mr. Janaskie pointed out that the remaining 18 items at INL may not necessarily be handled with existing baseline money, at least not until 2017, or unless new budget appropriations are provided to the EM program at INL.

Ms. Flohr commented that sites with multiple program offices need a site-wide vision regarding to what needs to be done there.

Ms. Leckband proposed that, in the interest of time, the Chairs discuss the shortest recommendation, which was originated by the ORSSAB and proposed reinstating the five-year budget plan.

Mr. Murphree stated that the recommendation stemmed from comments that were made during a breakout session at Combined Intergovernmental Meeting on October 21-23, 2009. Historically five-year planning was performed within the Department, but faded away during the latter years of the Bush Administration. Ms. Sykes was present at the Combined Intergovernmental Meeting and stated that there was no reason not to reinstate the plan. Mr. Murphree noted that he thought the suggestion to reinstate the five-year plan was being taken for action, but had not seen any guidance on it since the meeting. The ORSSAB submitted an official recommendation to reinstate the five-year plan in order to elicit a response and action from EM.

Ms. Luczak stated that she was unaware that the topic of the five-year plan was broached at the Combined Intergovernmental Meeting, but echoed Ms. Sykes' assertion. She noted that she would take this recommendation for action because it benefit.

Mr. Young stated if the five-year plan trickles down to the sites and feeds back up to the top, it would burden the site directors tremendously because they would have to develop an integrated five-year plan.

Ms. Luczak responded that site perspectives would be included when developing the five-year plans. She noted that during the latter part of the Bush Administration there was tension because the plan contained too much information in a process that required the budget build one year at a time.

Mr. Willie Preacher, Vice Chair of the INL CAB, asked how members of the EM SSAB could interface with other program offices that seek to re-use EM assets given the constraints of the EM SSAB charter.

Ms. Luczak indicated that she and Mr. Janaskie would follow-up on that question.

Ms. Brennan introduced Mr. Frank Marcinowski, Acting Chief Technical Officer and Deputy Assistant Secretary for Technical and Regulatory Support, and Mr. Larry Camper, Director of the Office of Federal and State Materials and Environmental Management Programs, Division of Waste Management and Environmental Protection, U.S. Nuclear Regulatory Commission (NRC).

Presentation: EM Waste and Materials Disposition Update – Frank Marcinowski, Acting Chief Technical Officer and Deputy Assistant Secretary for Technical and Regulatory Compliance

Mr. Marcinowski began with an update of EM's waste disposition priorities. EM's primary commitment is to ensure everything is done in a safe and compliant way. Another priority is to address HLW in a cost-effective manner, which includes liquid tank waste, K-basin sludge, and the calcine sodium-bearing waste at INL. Maintaining and optimizing current disposal capabilities is another priority. This has been a challenge in recent years with issues such as maintaining disposal operations at NTS and Utah. Recently, EM has had successful discussions with the State of Nevada, and operations are moving positively. EM has also made progress with regard to a new waste disposal facility in Texas, which is very promising for expanding EM's disposal options.

Mr. Marcinowski addressed future disposal capacity in the complex related to Greater-Than-Class C (GTCC) waste. EM has been working on an EIS and is getting close to releasing the draft for identifying a GTCC disposal facility. In the area of MLLW waste, EM will lose the use of the current disposal cell at NTS in November.

EM is close to awarding a complex-wide treatment contract for MLLW and is also pursuing a new disposal contract for MLLW and LLW.

Mr. Marcinowski explained that review of current policy, directives, and oversight provisions for waste management are also priorities. A focus of review is DOE O 435.1 on waste management, which is outdated. EM is updating the Order, particularly to incorporate Section 3116, which addresses disposition of liquid wastes from INL and SRS. As part of its review, EM has identified 69 best practices and 134 areas of improvement. Public input on the revised order will be solicited.

Mr. Marcinowski provided highlights on LLW and MLLW disposition efforts. The Recovery Act has assisted EM in moving forward with the cleanup, but it also has increased volumes of waste being generated. With the Toxic Substances Control Act (TSCA) Incinerator in Oak Ridge shut down, EM is relying on commercial alternatives to handle the increased waste loads. One alternative for LLW and MLLW disposal is now under construction - the Waste Control Specialists facility in Andrews, Texas, which has received its radioactive materials license. EM entered into a memorandum of agreement with the State of Texas on accepting this facility upon its closure, and EM also has the required letter agreement with Waste Control Specialists enabling construction and operation of the facility, which is scheduled to be operational in early 2011. Following an agreement with the State of Texas, EM is moving forward with the design of a new Resource Conservation and Recovery Act (RCRA) MLLW facility out at the Nevada Test Site. EM will need approval from the State of Nevada to construct the facility.

Mr. Marcinowski also noted that by-product waste from Silos 1 and 2 at Fernald, which has been in storage at Waste Control Specialists in Texas, has been put into the disposal cell. It is now officially disposed of, and its liability is off DOE's books. After gaining acceptance from the State of Nevada, Purex waste was able to leave SRS and is now safely disposed of at NTS. EM has also removed graphite blocks from the Brookhaven reactor and is disposing of the waste at NTS. Excess uranium metals were moved from Portsmouth to NTS, as well. Use of NTS for disposal is important. In particular, classified, higher-activity waste can only go to Nevada. Without this option, there would be a lot of waste in storage buildings at our sites around the country.

Mr. Marcinowski then talked of EM's challenges, which include the uncertain availability of disposal capacity, especially for the disposal of depleted uranium (DU). Questions have been raised about the safety of disposing DU in the Energy Solutions facility in Utah. The NRC is proceeding with a rule making that would require specific analysis to examine this issue. The State of Utah is insisting that DU should not be shipped to Energy Solutions until this analysis is completed. Waste scheduled to be shipped from SRS is currently on hold. In addition, there is DU oxide at Portsmouth and Paducah that needs a disposition site. It may take a couple of years for Utah to complete its analysis and to permit use of the site for DU.

DU is prohibited from Waste Control Specialists' licenses until certain conditions are met, and waste streams such as DU oxides are not accepted at the NTS until the new site-wide EIS is completed. The result is that EM will need to look at on-site storage for a few years until the disposition issue for DU is sorted out. Another challenge is small-volume problematic waste streams that do not have a clear disposition path, such as GTCC, or non-defense TRU waste. There are also sealed radioactive sources that are no longer needed, which are being accepted not

only from within the country but from other countries, as part of the Department's non-proliferation efforts.

With the closure of the disposal facility in Barnwell, South Carolina, to non-compact states, Class B and C waste for the commercial market has become an issue, and there has been some external interest in the Department getting involved and perhaps accepting some of this commercial waste. DOE is not inclined to do so at this point, particularly with Waste Control Specialists close to opening its doors for radioactive waste disposal.

NTS normally accepts approximately 1.5 million cubic feet of waste per year. This year, the projection is more than 2.2 million cubic feet, due to the accelerated work under the Recovery Act. This increased disposal volume will continue into 2012.

EM's LLW forecast estimates that during the next five-year period, 166 million cubic feet of waste will be generated.

In more than 10 years of operation, approximately 66,000 cubic meters of TRU waste has been disposed at WIPP**,** which represents more than one-third of WIPP's capacity of 150,000 cubic meters. Nearly 350 shipments of RH TRU waste have been received at WIPP. Oak Ridge provides the majority of RH TRU waste.

EM is accelerating the transuranic program via use of Recovery Act funds. This is particularly true for Hanford, with five shipments per week. EM is also making progress with reducing transuranic waste inventory at Idaho; within the next 3-5 years, EM expects that all of the above-ground waste will be moved from Idaho. EM has increased its 2010 goal for shipments to more than 1,300 across the complex.

Two routine regulatory renewals for WIPP are underway: the Environmental Protection Agency is doing its compliance certification renewal, and the State of New Mexico is reviewing the Hazardous Waste Permit Renewal Application.

One TRU waste disposition challenge is the Central Characterization Project coordination with the generator site's efforts. Carlsbad will do the characterization and certification of the waste. The sites' responsibilities are to retrieve the waste, repackage it, and hand it off to the characterization line. The goal is to ensure that the sites' efforts are synchronized with Carlsbad's expectations.

Much of the remaining TRU waste at SRS is more challenging to address. This is why it has taken longer to complete the drum program at SRS. EM expects to receive NRC certification for the TRU PAC-3 shipping container, which will allow shipments of large containers from SRS and other sites. Another issue is the shipment of a particular waste stream from Idaho that had been contributing higher than expected volumes of carbon tetrachloride to the underground at the WIPP facility. EM has been working with the New Mexico regulators to repackage that particular waste stream in a different configuration, so that the carbon tetrachloride emissions are much lower than they had been under the standard packaging.

Mr. Marcinowski noted that the Blue Ribbon Commission held its first meeting in March. He presented the EM Program to the commission, making sure that they fully understood the issues that EM is facing. He noted that even if the Yucca Mountain option were still feasible, EM was not planning to ship any HLW or SNF until after 2020, so there is no current impact from the Yucca Mountain decision on the EM program. Pending the Blue Ribbon Commission's recommendations, EM is well positioned to continue to store these materials.
Mr. Marcinowski also noted that the Blue Ribbon Commission, under the Federal Advisory Committee Act (FACA), will continue to have numerous opportunities for public input.

Mr. Marcinowski then provided an update on GTCC. EM has issued a notice of intent to proceed with an EIS and has had many discussions at the various sites and with various tribes to obtain input. One major issue that EM hopes to resolve prior to the release of the draft EIS is the specific inventory of materials that needs to be evaluated. The goal is to release the draft EIS this summer.

Another issue is mercury management. EM is required by legislation to identify a storage facility for elemental mercury within the country. EM's draft EIS identified the Waste Control Specialists facility in Texas as a storage site. EM has concluded the public comment period and has conducted public meetings. EM hopes to have a final EIS by the end of the year, which must be followed by a record of decision for the storage facility. LM will be charged with operating the facility.

Mr. Marcinowski concluded by noting that the EM program has made great progress during the past year and that the program is well positioned to deal with increased waste streams in the near term. He promised to continue to work with the EM SSAB in improving the EM program.

Discussion

Dr. Wegst asked if it is geologically possible to increase the storage capacity of WIPP and, if so, could WIPP be used as the place to put DU.

Mr. Marcinowski responded that WIPP is legislatively limited to accepting defense-related TRU waste. EM does not have either the legislative mandate or the regulatory authority to consider other missions for WIPP. He emphasized that while the salt formation is large, the TRU waste program is working well and EM would like it to continue.

Ms. Shelley Cimon, National Liaison for the HAB, asked about the size and anticipated opening date of the radioactive waste cells at Waste Control Specialists in Andrews, Texas, and questioned available storage capacity for waste still to come from site cleanup.

Mr. Marcinowski indicated that he did not have the capacity figures for the Waste Control Specialists' cells, but noted that between the disposal sites such as WCS, Waste Control, Energy Solutions, NTS, and all of EM's on-site disposal capability, there is sufficient capacity to handle all the waste that the Department would generate in the future.

Ms. Leckband asked about the timeline for the new MLLW facility at NTS.

Mr. Marcinowski acknowledged that there will be a gap of 6-8 months between closure of the existing facility and the opening of the new one at NTS. EM hopes that new facility will be open for operation in early calendar year 2011, depending on the permitting process from the State. During the interim, EM has applied for a temporary storage license to store the waste at NTS until the new disposal cell becomes available.

Mr. Bettencourt noted that DU oxide was not part of the SRS CAB's top three list because it is not a health and safety risk.

Mr. Marcinowski agreed that it is not a safety issue, but more of an issue of missed opportunities. EM understands that if it does not move the DU at SRS now, it could be postponed until 2017.

Mr. Murphree asked about the path for the down blended material out of 3019 at Oak Ridge. He asked if it was caught up in the no-path-for-depleted-uranium issue or was a separate issue.

Mr. Marcinowski explained that this material will be disposed of as LLW at NTS.

Presentation: EM Waste and Materials Disposition Update – Mr. Larry Camper, Director, Office of Federal and State Materials and Environmental Management Programs, Division of Waste Management and Environmental Protection, U.S. Nuclear Regulatory Commission

Mr. Camper explained that the NRC is an independent federal regulatory agency that reports directly to Congressional oversight committees. The NRC does not regulate DOE, but the agencies frequently interact. By way of example, Mr. Camper discussed the West Valley Demonstration Project in New York.

The West Valley Demonstration Project is the only site in the country where commercial reprocessing has ever taken place. In 1981 Congress put in place the West Valley Demonstration Act, which required DOE to clean up the site. West Valley was previously issued a nuclear power reactor license by the NRC, which allowed the site to pursue reprocessing activities throughout the late 1960s and 1970s, before ceasing operations due to economic reasons. Since that time, DOE has been carrying out remediation activities. The NRC developed decommissioning criteria for the site, which were published in 2002.

The decommissioning plan that DOE developed for the West Valley site was not approved by the NRC. Instead, NRC commented on the decommissioning plan and then prepared a technical evaluation report, which was completed February 2010. NRC was a corroborating agency on the EIS that was prepared in support of the decommissioning process, which employed a phased decommissioning approach. NRC has responsibility for conducting certain monitoring visits, which are conducted by the Region One office.

Mr. Camper addressed the subject of waste incidental to reprocessing, which is defined as waste that has been remediated to the point that it is no longer HLW. DOE undertakes the cleanup and makes the waste determinations. Historically, NRC would assist DOE under interagency agreements in reviewing these waste determinations; however, the National Defense

Authorization Act of 2005 changed the roles of DOE and NRC. Section 3116 of the Act requires the Secretary of Energy to consult NRC about determinations. In addition, once determinations are completed, NRC is required to monitor the remediation of the tanks in perpetuity. NRC must ensure that performance objectives are met and must report findings to Congress, the states, and other parties if they are not met. Mr. Camper provided recent examples where DOE has submitted or is prepared to submit its determinations for the NRC's review. He noted that there has been significant progress in the waste incidental to reprocessing arena.

On the subject of DU, Mr. Camper noted that according to Part 61 of the waste classification tables, there are four classes of waste. The three primary classes of waste, types A, B, and C, are suitable for near-surface disposal. The fourth category of waste is GTCC, and it requires some sort of engineered barrier in order to make it safe for disposal. Part 61 did not explicitly list DU in either one of the waste classification tables. However, DU is captured by a default provision in 61.55(a)(6), which says that if an isotope is not listed in either one of the tables, it is Class A waste by default.

There is still the issue of determining when DU actually becomes waste. Depending upon the price of uranium, it might be worthwhile to recycle or reprocess that material to extract more uranium. If this were the case, then the material would only become waste when recycling or reprocessing was no longer economically viable.

DU can be disposed of in a facility that is authorized to for Class A waste. However, the question of whether or not DU is Class A waste or if is suitable for near-surface disposal has been debated. NRC decided for purposes of a specific legal proceeding that uranium was Class A waste, but then directed the staff outside of the adjudicatory process to determine if the provision of 61.55(a)(6), the default provision, or the waste classification tables in 61.55, needed modification to address the large quantities of DU that are envisioned to come from enrichment facilities. The result of this analysis was a determination that large quantities of DU were suitable for near-surface disposal, but not under all conditions. The staff recommended to NRC that the way to address the large quantities of DU, so called unique waste streams, was to pursue a rule making that would require site-specific performance assessments. One of the technical drivers for this recommendation was that DU, behaves quite differently depending on where it is disposed. Whether it is called Class A or some other class waste, there needs to be a site-specific performance assessment to ensure that the material can be disposed of safely at that site.

The NRC is currently in the midst of a three-year cycle to develop a rule making, which will require a site-specific performance assessment for unique waste streams. The technical parameters of the assessment will include factors such as period of performance and intruder dose analysis. The NRC will provide guidance to facilitate the implementation of the rule and is committed to ensuring that all sites employ a uniform technical approach in dealing with DU disposal.

The DU issue has drawn attention in the State of Utah. The Utah Radiation Control Board is requiring Energy Solutions to provide an updated performance assessment. No DU can go to that commercial facility until the performance assessment is completed.

Mr. Camper reported that the NRC is beginning a rule making for risk-informing the waste classification scheme in Part 61 and has asked its staff to proceed with a budget for this endeavor. A kickoff meeting is planned for March 2011. NRC and DOE will also hold a joint public workshop in Phoenix, AZ, following the Waste Management Symposium. The purpose of the workshop will be to discuss DOE's effort to revise order 435.1. A great deal of synergy exists between the process as outlined in the DOE O 435.1 and in Part 61.

Mr. Camper noted that Part 61 has been in place for 30 years and has been largely successful. A cottage industry has grown up around Part 61, and there are stakeholders who have developed very strong feelings about the existing waste classification scheme. For these reasons, revising Part 61 will be a challenging rule making. Mr. Camper does not believe that the revision will be limited to only risk-informing the waste classification scheme. If one looks at the assumptions that were laid out 30 years ago and compares them to what currently takes place in commercial low-level waste disposal, the situations are remarkably different. NRC also will need to look at current disposal configurations, adequate periods of performance, institutional control periods, waste forms, site conditions, exposure pathways, and various receptor scenarios that are now informed by 30 years of operating experience.

In risk-informing Part 61, a spectrum of possibilities emerges. At one end of the spectrum, there is the classification system that exists today. One could take this existing waste classification scheme and bring to bear current International Commission on Radiological Protection methodology. Alternatively, one could use different factors that have been developed over time in internal dosimetry and health physics to re-evaluate radionuclides for categorization as A, B, or C type waste. At the other end of the spectrum, one could imagine a requirement that only necessitated a site-specific performance assessment. That performance assessment would dictate which radionuclide in X concentrations and X quantities could be disposed at a particular site. Somewhere in between those two ends of the spectrum are the DOE and the International Atomic Energy Agency (IAEA) waste classification schemes. NRC's intention is to examine the many possibilities, and to talk with the public about them.

Waste classification determinations are ultimately about disposal. Regulations do not require waste to be classified until such time as it is ready for disposal. Surface doses and the like are not the drivers for waste classification. Rather, classifications are directed at a scenarios where an unwitting intruder who does not recognize the waste, disturbs it, and becomes exposed. Mr. Camper added that stakeholder interest in changes to Part 61 would likely be significant.

Due to the closing of the Barnwell site, many states no longer have a place to dispose their Class B and Class C waste. Industry is looking for new options. One possibility being explored is the concept of blending LLW, where strains of Class B and C waste are mixed with Class A waste to lower the combined waste category to Class A. Currently, blending is not explicitly addressed in the NRC regulations, nor is it prohibited.

NRC held three meetings with commercial entities, who have a great interest in blending LLW. A public meeting was also held in January to solicit input. NRC identified four options to guide its approach to blending LLW: status quo, constrain, eliminate, or use a risk-informed performance-based approach; the latter was recommended by the NRC staff.

Mr. Camper noted that there will be a spike in years 2035-2050 in the amount of LLW that will need to be disposed, due to the next round of power reactor decommissioning. There is sufficient capacity to dispose of this waste in the Energy Solutions' Clive facility in Utah. However, there is the question of whether the Utah will have the political will to continue accommodating the waste at that time.

Mr. Camper concluded with a brief discussion of recycling and noted that there is no recycling or clearance standard in the U.S. The NRC was charged with developing a standard for minimal quantities of material and pursued the below-regulatory-concern initiative, which was withdrawn in the 1990s after strong public opposition. Congress ultimately rejected the standard that the NRC developed. IAEA does have a clearance standard, but the NRC has not adopted one. NRC currently clears materials for recycling on a case-by-case basis under provisions in Part 20.202.

Discussion

Ms. Leckband asked if the changes envisioned in the blending rule making would apply to the legacy waste at EM sites.

Mr. Camper responded that the blending rule making only applied to commercial entities.

Dr. Wegst asked if the site-specific performance assessments for DU disposal include information on how the site will perform when it is covered by several hundred feet of glacier, as is sure to happen in the next ice age.

Mr. Camper explained that in line with the new Regulation 1573, the NRC's position has been that the period of performance for purposes of compliance is 10,000 years, but that longer lived radionuclides should be evaluated in the environmental assessment. He added that at two public meetings on the subject, panels agreed that a period of performance for compliance of 10,000 years was a reasonable regulatory approach. As NRC develops its rule making, ultimately the staff will make a recommendation concerning the period of performance.

Mr. Larry Parker, member of the PORTS SSAB, asked for some references in addition to Part 61 that would help enlighten the local boards and provide a better understanding.

Mr. Camper stated he would provide DOE with such as list to distribute to the EM SSAB.

Public Comment Period

Mr. Norman Mulvenon, a former member of the ORSSAB and current Chair of the Oak Ridge Reservation Local Oversight Committee (LOC) Citizens Advisory Panel, commented that during the Clinton Administration the budget was not embargoed, and he preferred that method. Additionally, he stated that public input appeared to be a topic of concern at SRS and Hanford, but pointed out that public comment is a very important aspect of participation across the complex. Mr. Mulvenon stated that there are two types of stewardship, one for closure sites and another for ongoing mission sites. He commented that the landlord for Oak Ridge is SC, and

that office does not appear to be particularly familiar with stewardship issues. Mr. Mulvenon suggested that a plan be implemented to facilitate interactions with ongoing mission sites since closure sites are handled by LM. With regard to the Storage and Management of Elemental Mercury EIS, Mr. Mulvenon stated the LOC provided comments to EM.

Ms. Susan Gawarecki, Executive Director of the LOC, explained that the organization was formed by the State of Tennessee in 1991, and that Board of Directors consists of elected officials from designated counties surrounding the City of Oak Ridge. She stated that the City of Oak Ridge and parts of Anderson and Eastern Roane County have become an industry concentration for radioactive waste treatment. The TSCA incinerator replacement facility is located in Roane County. Ms. Gawarecki asked the Chairs to keep in mind the location where they propose to send waste and referred to a case where Brookhaven National Laboratory sent tritium-contaminated water to Tennessee, and atmospheric contamination occurred. She explained that the tritium-contaminated water would have been better off being disposed locally by evaporation or decay in a confined state. Ms. Gawarecki commented that release of metals for recycling has been one of the LOC's key issues because ORNL contains a lot of nickel that was used in the barrier to separate U-235 from U-238. The only way the nickel could be released into commerce is by being smelted, and the trace levels of alpha contamination that remain in the metal have precluded it from commercial reuse. Recycling metals is forbidden under the Secretarial Order, even though a vast majority of contamination is removed in the slag, and there is no adverse public health effect. Additionally, Ms. Gawarecki commented that at Oak Ridge there are large quantities of DU in the Bear Creek Valley burial pits and occasionally erosion causes surface exposure. There is a real problem with the down blending of waste in regard to U-233. The concentrations of this dangerous uranium isotope are going to be down blended and then sent to NTS as LLW, or put through the ORNL LLW Processing Facility. Ms. Gawarecki questioned whether these were appropriate ways to handle the waste. Another issue with U-233 is that it contains progeny and thorium isotopes, which are both important for medical research. She asked that DOE consider retrieving a small part of the isotopes for medical use. Currently, Congress precludes DOE from harvesting isotopes from the U-233 at ORNL.

EM SSAB Product Discussion

Mr. Robert Gallegos, Vice Chair of the NNMCAB, provided the group with an overview of the board's recommendation on unfunded liabilities. The recommendation was adopted by the board on March 31, 2010. The recommendation refers to statements from former Assistant Secretary Rispoli regarding unfunded liabilities and estimates associated with them. In particular, a 2009 DOE financial report estimated $180 billion in unfunded liabilities in EM. The unfunded liabilities are not strictly identified, and the recommendation requests that DOE assign staff to look at this particular issue and identify unfunded mandates across the complex.

Dr. Wegst commented that Mr. Janaskie referenced a list of identified unfunded liabilities that EM has agreed to accept, and it should be included as part of this recommendation. He also stated that this issue should be brought to the attention of the appropriate Congressional

Committee so that Congress knows that there are some tremendous future unfunded liabilities that need to be addressed.

Ms. Luczak responded that there seems to be confusion between what EM considers an environmental liability, an unfunded liability and an excess facility, even though Mr. Janaskie went over the rigorous process DOE uses to make a pathway for the acceptance of an unfunded liability. The financial report published by DOE and referenced in the recommendation is not an EM- specific report and includes DOE environmental liabilities that are not expected to become part of the EM portfolio.

Ms. Nielson pointed out that in addition to providing the recommendation for the Chairs' consideration, the NNMCAB sent it to EM-HQ. She noted that a response is currently being developed and agreed with Ms. Luczak's comment that the definitional issues require clarification.

Ms. Luczak stated that she would be more than happy to lay out the environmental liability aspect that is referred to in the recommendation. She will define EM's role and further explain the role of unfunded and excess liabilities.

Ms. Brennan commented that the recommendation reflects information that is dated and does not account for the progress that Mr. Janaskie reported. She proposed that the Chairs re-frame the recommendation in light of current knowledge.

Mr. Janaskie stated that he was somewhat confused by the numbers referenced in the recommendation. He explained that a federal environmental liability is represented by number X, and then there is the DOE environmental liability, which is number Y. The DOE environmental liability includes EM, but also components of other program offices such as NNSA. The actual EM environmental liabilities are divided into funded and unfunded. He recommended separating these numbers to clarify the recommendation.

Mr. Sullivan asked if there was a dollar amount that could be attributed to liabilities that have already met EM's criteria for acceptance.

Mr. Janaskie reported that EM has estimated costs associated with these transfers. All of the unfunded liabilities in the original inventory sent to EM from other program Secretarial Offices have been evaluated by a technical team. Analysis has also been conducted regarding potential timelines for the work and return on investments.

Mr. Sullivan indicated that he would like to see the numbers of liabilities that EM would be willing to accept broken down by individual site.

Mr. Janaskie presented a list of 47 items by site that would be left after 2011 when ARRA ends. The list indicated a Field Element Managers I.D. number that tracks facilities all over the complex as well as data in terms of size, cost estimates, and prioritization scores for contamination.

Dr. Wegst stated that the recommendation specifically referred to the complex's environmental management problems. He pointed out that the Chairs did not have any of the current information on unfunded liabilities from Mr. Janaskie six months ago.

Ms. Leckband commented that she did not feel the issue of unfunded liabilities was necessarily time sensitive and that the Chairs needed more information in order to move forward.

Mr. Bettencourt agreed that there is nothing time sensitive about the issue. He suggested that the recommendation be tabled for the time being and that the Chairs wait to see how EM-HQ responds to the NNMCAB.

Ms. Brennan thanked the Chairs for their comments and agreed that refining the recommendation was the best course of action. She reiterated that even when a recommendation goes forward from a specific site, the Chairs can still work on improving it. Ms. Brennan pointed out that because information in a recommendation can be out of date, it is often better to identify a basic concern that can be addressed regardless of specifics.

Ms. Flohr commented that Dr. Triay attended three two-hour sessions to brief the Undersecretary on EM's proposal for the FY 2012 budget. She indicated that beginning with the FY 2011 budget part of the briefing was to discuss potential incoming facilities. Ms. Flohr pointed out that if EM does not have the money to manage a facility, Under Secretary Johnson will mandate that another group such as NE continue surveillance and maintenance until EM can regain control.

Ms. Leckband noted that based on earlier discussions, most boards are concerned with what will happen when the ARRA funding ends in 2011. She introduced a five paragraph recommendation regarding baseline funding and asked that the Chairs review it overnight.

Ms. Brennan provided the Chairs with a paper on institutional control models titled "Land Use Control Implementation Plans and Mode" written by Mr. David Borak, a former National Governor's Association (NGA) employee and now an employee of the Office of Public and Intergovernmental Accountability. She suggested that it might be helpful background information for the next day's roundtable discussion.

At 5:35 p.m. on April 28, 2010, the meeting was adjourned, to reconvene at 8:00 a.m. on April 29, 2010.

Thursday, April 29, 2010

Opening Remarks

Ms. Brennan welcomed participants to the second day of the meeting and introduced Ms. Nielson who provided the group with several opening remarks.

Ms. Nielson indicated that she is constantly looking for ways that the Chairs, the Environmental Management Advisory Board, and intergovernmental groups can collaborate on issues to make more impactful statements. She announced that on May 3-5, the State and Tribal Government Working Group, NGA's Federal Facilities Task Force, and the National Conference of State Legislatures' EM Roundtable would gather in Nashville, Tennessee for a joint spring meeting. At the last Combined Intergovernmental Meeting, on October 21-23, 2009, Dr. Triay committed to conducting a year-long survey to evaluate sites communication with communities, regulators, tribes, and other stakeholders. Ms. Nielson welcomed the Chairs to provide input as well.

Ms. Nielson reported that Dr. Triay made an additional commitment in October to create a community involvement fund that will be administered by an external organization. The EM Consolidated Business Center is currently working to develop the framework for the fund, which will support grants for community non-profit organizations that want funds to enhance public involvement or for technical assistance. A panel of people well versed in community involvement will be organized to analyze the grant applications. There will be 10-20 grants of roughly $60,000 dollars each that would be available to organizations in communities where EM has cleanup projects, including those communities where there are local boards of the EM SSAB. EM is looking at the New Mexico Community Foundation to administer the funds. The foundation is a re-granting organization that has received federal grants in the past. EM currently is soliciting candidates to evaluate the grant applications and is having difficulty finding them because many interested people also want to apply for grants. This will not be allowed, although Ms. Nielson noted that an individual who sits on the panel one year would not be excluded from applying for a grant the next year as a non-panel member.

Ms. Brennan distributed a budget process timeline to the Chairs. She indicated that Ms. Flohr and Ms. Luczak agreed to put together preliminary guidance for the Chairs based on previous years. Ms. Brennan suggested that when the preliminary guidance is issued that the boards look at what was funded the previous year and note any changes they would like to see in terms of priorities. An action item for the Federal Coordinators and DDFOs is to work with the boards on an annual process for budget input. Additionally, Ms. Brennan demonstrated a webinar format that could be used when presentations are made on the bi-monthly Chairs' teleconferences. Guidance for use will be forthcoming from EM-HQ prior to its initial use.

The Chairs agreed to hold their next conference call on May 19.

Ms. Brennan introduced Mr. Dave Geiser, Director of LM.

Presentation: Update on the Office Legacy Management – Mr. Dave Geiser, Director of the Office of Legacy Management

Mr. Geiser began by updating the Chairs on LM's current activities. He explained that the 2010 Long-Term Surveillance and Maintenance Conference would be held from November 16-18, in Grand Junction, Colorado. At the conference representatives from SC, NNSA, and NE will discuss Long-Term Stewardship (LTS) activities at ongoing mission sites. Additionally, LM is in the process of producing its third strategic plan, which will be available for public comment over the summer. Mr. Geiser encouraged the local boards to provide input, consistent with the

requirements of FACA. Copies of a document highlighting accomplishments during the first five years of the LM program were made available for the Chairs.

Mr. Geiser pointed out that the concept of LTS did not formally exist within DOE until the 1990s, when EM identified that there would be residual risk or contamination at every site. DOE made a number of recommendations in 1999 and issued several reports in 2000-2001, including estimates of all site stewardship long-term costs through 2070. As cleanup progressed and the closure of sites came closer to reality DOE made a decision in 2003 to establish a separate office for the LTS of legacy sites – sites that had been remediated and were no longer needed for DOE missions. LM's first mission was to protect human health and the environment through effective and efficient long-term surveillance and maintenance. The work is determined by RODs and regulated by the EPA or long-term surveillance and maintenance plans, under the oversight of the NRC. LM's second mission is to preserve and protect legacy records and information while being responsive to former workers who may file claims relating to the Energy Employees Occupational Illness Compensation Program Act. The program also handles outreach to stakeholders in communities located near LM sites.

Other key LM activities are the management of the natural, cultural, and historical resources, and turning the investment of cleanup money into a beneficial, reusable asset for the community. The wildlife refuge at Rocky Flats in Colorado is a perfect example. LM also provides funding for the pensions and post-retirement benefits for ~14,000 retired contractor workers associated with closure site management and operating contractors. LM typically acquires four to six sites per year and at the end of FY 2009 was managing 85 sites. In addition to EM closure sites, LM accepts sites from the U.S. Army Corps of Engineers (USACE) under the Formerly Utilized Sites Remedial Action Program (FUSRAP) and the private licensees for uranium mills. LM is responsible for these sites under the Uranium Mill Tailings Radiation Control Act (UMTRCA). There are two classes of sites under UMTRCA. Title I covers mills that had completed operation at the time the law was enacted in 1978. Mill sites covered under Title II are cleaned up by the private licensees. Once the NRC agrees that the cleanup is complete, then those sites also come to LM.

There are approximately 50 sites under FUSRAP, and LM is responsible for 30. There are also 50 sites in the UMTRCA Program, with LM managing 26. LM expects to acquire 16 additional sites by the end of FY 2012. LM manages sites under a variety of regulatory schemes. Currently, seven sites fall under CERCLA or RCRA. Five are D&D sites, such as research reactors around the country that did not fall under CERCLA or RCRA. FUSRAP (30 sites) and UMTRCA (26 sites), compose the largest number of sites by regulatory scheme. Seventeen sites are designated as other, and this category includes eight locations where there were sub-surface nuclear detonations.

LM also tracks its sites by category. LM has 37 sites in Category 1, which requires only records management rather than surveillance and maintenance or site inspections. LM has 40 Category 2 sites, where, in addition to records maintenance, LM will perform annual or semi-annual inspections, but there is no permanent presence at the site. LM has eight Category 3 sites, where LM has people physically located either at or near the site. Category 3 sites, mostly former EM and UMTRCA sites either have a five-year review requirement under CERCLA or an annual

review process under UMTRCA. There is a regulatory process in place that forces LM to look at remedy performance, and there are documents that define what LM must do in terms of surveillance and maintenance at these sites. LM has experience with long-term groundwater pump-and-treat, and currently manages pump-and-treat systems at a limited number of sites (e.g., Fernald in Ohio and the Tuba City, Arizona disposal cell site).

Mr. Geiser provided an overview of four of the Category 3 sites: Fernald, Rocky Flats, Weldon Spring, and Tuba City. Fernald comprises approximately 1,000 acres, with the disposal cell taking up roughly 90 acres. There is an active groundwater pump-and-treat system there that is the single most expensive operation LM has at any of its sites. LM opened a visitor center at Fernald and had 10,000 visitors within the first year of operation.

The Rocky Flats National Wildlife Refuge Act called for co-management by LM and the U.S. Fish and Wildlife Service. LM's responsibility is the core industrial area. One of the complicating factors is that some of the sub-surface mineral rights are not owned by DOE, and there is some active mining on that site. Permeable reactive barriers are used to treat groundwater at Rocky Flats.

The Weldon Spring site has a 45-acre disposal cell. DOE's property is 150 acres, which is surrounded by about 25,000 acres of state conservation land and a U.S. Army training property. There is also an interpretive center on the site that was opened in 2004, and has had more than 100,000 visitors. The center conducts an active outreach program bringing people to the site, which is 30 miles west of St. Louis.

The Tuba City, Arizona site is on the Navaho Nation. This is a Title I UMTRCA site where LM operates a groundwater pump-and-treat system. The site uses solar energy to power the pumps and pre-heat the groundwater prior to entering the distillation-based treatment system.

Mr. Geiser also highlighted the Cheney disposal cell, which is outside of Grand Junction, Colorado. The Cheney cell continues to receive mill tailings material from the City of Grand Junction and surrounding areas.

Mr. Geiser noted than the LM program continues to invest in science and technology for LTS. The cost of long-term surveillance and maintenance at LM sites runs about $35 million a year, which typically represents approximately 1-2% of the former annual cleanup budget. For example, the cleanup budget for Rocky Flats was $500 to $600 million a year, and the cost for LTS at Rocky Flats is about $5 million a year. The cost includes records management and natural cultural historical resources, on top of maintaining the remedies.

Mr. Geiser noted that LM places importance on ensuring that the caps and covers for the disposal cells are performing as designed. In addition, LM carefully watches the groundwater monitoring networks set up by EM, USACE, or the private licensees, and that they focus on optimizing the monitoring well locations, analyte, and sampling frequency.

Mr. Geiser then turned to the subject of beneficial reuse. The goal is to return sites to the community for some type of productive use. LM is balancing the need to protect human health

and the environment with the desire for the land to be reused as a community asset. LM works closely with the communities on what that reuse could be. In conjunction with the National Renewable Energy Laboratory, LM did an extensive study looking at all the LM sites to determine where renewable energy could be used. There are two commercial projects currently under development. One is a 20 megawatt solar system in Blue Water, New Mexico. The other is a two megawatt solar system in Durango, Colorado.

Mr. Geiser then discussed records, which is always a big issue for LTS. LM, with the support of the General Services Administration, constructed a state-of-the-art business center and records-storage facility in Morgantown, West Virginia. The facility opened in December 2009. LM is in the process of migrating records from seven different federal records centers to this one location. Plans are to finish this by the end of the calendar year. Related to records management is information technology, and LM is using commercially available, off-the-shelf products that can be easily updated. In addition, LM makes use of the internet to make information available. For example, all groundwater monitoring information is available online.

Mr. Geiser then spoke to the process for transitioning sites from EM to LM. The process worked well with Rocky Flats and Fernald. LM hired people who had worked at Rocky Flats, Fernald, and Weldon Spring, so that both the federal and the contractor employees who had been directly involved with the cleanup, were carried over to do the surveillance and maintenance work.

There is a formal, rigorous, and systematic process within DOE for handoffs between EM and LM. A lot of paperwork is associated with it. There are comparable processes with the USACE on the FUSRAP sites. There is actually a two-year turnover process from the time the USACE completes cleanup until LM receives the site. The NRC has a very strict process for LM to receive the UMTRCA Title II sites from the private licensees.

In summary, Mr. Geiser noted that the LM program has completed five years of operation and manages 31 engineered disposal cells. With respect to the deployment of new technology, as long as the existing remedy is in compliance and is protective of human health and the environment, LM would switch to a new technology is only if it benefitted the taxpayer in terms of cost reduction. If something fell out of compliance because of regulatory changes, or because the remedy itself failed, then obviously LM would work with the regulator and determine what new technology would be used. Finally, LM is slowly growing over time, adding sites from EM, the USACE and the private licensees.

Discussion

Mr. Young asked if there were any pump-and-treat sites that could ever be shut down.

Mr. Geiser responded that in most cases, the ROD actually provides specifications for the shut off of a pump-and-treat system. For Fernald, current modeling estimates that the pump-and-treat system could be shut down by 2020 or earlier. LM is looking at the data and working with the State of Ohio and EPA. There will be a public process about turning off those ground water treatment systems. If they are turned off, the process will be to leave everything intact and wait a couple years to make sure that the models actually predicted correctly before taking down the

waste water treatment facility. The Tuba City pump-and-treat system will likely be in place at least 25 years.

Ms. Leckband asked if there would be any benefit to have duplicates of the records being stored in Morgantown to avoid risks of losing them. She also asked if LM had a regular process for the UMTRCA sites to determine if the remedy selections are performing as they should.

Mr. Geiser noted that there is value to having copies of records, but it is a question of cost. The Morgantown facility was built to meet the 2009 standard established by the National Archives and Record Administration and has state-of-the-art fire protection. The only duplicate data that LM has deals with environmental monitoring. At the Grand Junction site, LM servers maintain duplicate environmental monitoring data as does the site in Morgantown. There are no duplicates of hard copy records. Mr. Geiser estimated that 90% of the records have never been asked about and no one will ever need them, but LM is required to maintain them to meet record requirements.

All remedies that EM installed are working as predicted. If there were a major issue at an EM site, LM would go back to EM. Smaller jobs can be handled by LM. For example, if LM shuts down the waste water treatment facility at Fernald in 2020, according to regulatory guidelines, LM plans to do the D&D there. It is a pretty small operation, and the cost, perhaps a couple million dollars, is within LM's capability.

Ms. Leckband asked if something as large as a cap failure occurred, what entity would address it.

Mr. Geiser noted that this would necessitate a discussion with the transferring entity. He noted that LM had returned a FUSRAP site in Middlesex, New Jersey, to the USACE. The site had been remediated, but there was some material that had been missed during the cleanup. The USACE is completing that remediation. Once the remediation is complete, the site will be returned to LM.

Dr. Wegst asked how LM determines when EM's cleanup has ended and LM takes over.

Mr. Geiser responded that the LM work beings when the final ROD is signed and the final remedies are in place and operating. LM has signed only two RODs to date. One was associated with the Weldon Spring site, which was really just a ROD amendment to address institutional controls. The other was the Laboratory for Energy and Health-Related Research site at the University of California, Davis, where EM had completed 99% of the work and the only issue remaining was the final ROD.

Ms. Brennan introduced Mr. Marcinowski and indicated that he would be speaking about LTS related to EM.

Presentation: Long-Term Stewardship Management – Mr. Frank Marcinowski, Acting Chief Technical Officer and Deputy Assistant Secretary for Technical and Regulatory Compliance

Mr. Marcinowski stated that he would focus on the EM process for transferring sites to LM, and

how the requirements for such transfers are established. In many cases EM maintains responsibility for surveillance and maintenance activities even after a site is transferred to LM. Protection of human health and the environment pursuant to CERCLA, RCRA, and the Atomic Energy Act are EM's prime responsibilities.

There are a variety of principle drivers for ensuring LTS at EM sites. Consent decrees, federal facility agreements, and tri-party agreements are common requirements. RODs are used to establish remedies at the sites. Treaty obligations with tribes are included in licenses and permits and often contain long-term surveillance and maintenance requirements. Each of these drivers is implemented through CERCLA and RCRA decision documents.

Five-year remedy reviews are conducted at sites where active cleanup has been completed, such as Rocky Flats and Fernald. DOE O 435.1 and DOE O 5400.5 establish environmental and waste management requirements as well as long-term monitoring and performance objectives. Additionally, DOE O 435.1 outlines monitoring and reporting requirements for the sites.

The decision process with regulators and stakeholders involves a number of steps. Evaluation of site conditions as well as multiple short-and long-term actions is required. Establishing the cleanup levels for the site depends on technical feasibility, worker health and safety, collateral ecological damage and cost. EM does a lot of cleanup work through the CERCLA process and uses the nine criteria for remedy evaluation and selection.

Threshold Criteria under CERCLA establish cleanup requirements and goals while dealing with the overall protection of human health and the environment. Compliance with Applicable and Relevant, and Appropriate Requirements is also a component of Threshold Criteria. CERCLA's Balancing Criteria take into account factors such as the impact on workers to reach cleanup goals, technical feasibility of achieving cleanup goals, and cost effectiveness in establishing cleanup goals. Modifying Criteria deal with the interests of the state and affected communities where cleanup is underway. If a particular cleanup level requires trucking thousands of loads of nuclear waste through a heavily populated community that will be factored into cleanup decision-making.

Mr. Marcinowski indicated that he would provide the Chairs with examples of cleaned up EM sites that have been transferred to LM.

For 50 years, the Hanford 1100 Area was used primarily to support operations at the site. In 1996, the site was deleted from the National Priorities List. In 1998, the 768 acre area with 26 facilities and 16 miles of railroad was transferred to the Port of Benton in Richland, Washington. EM is responsible for ensuring LTS per decision documents and the Site-Wide Institutional Controls Plan for Hanford CERCLA Response Actions. Additionally, EM still has the responsibility to conduct five-year performance reviews of the 1100 Area and is currently in the third review period for the site.

The Test Area North (TAN) at INL is a 7,680 acre piece of land that was cleaned up. Currently, the Department of Defense is using the site to manufacture tank armor and conduct groundwater remediation. Remedial groundwater actions continue at the site, but the remedial soil actions and

the D&D of 46 structures have been completed. EM will maintain institutional controls of soil and groundwater at TAN until 2095. Currently, the second CERCLA five-year remedy performance review is under development at TAN.

The T Area testing facility for fuel and target manufacturing chemical processes and the DWPF are located at SRS. Remediation of seepage basins, discharge structures, sewer lines and three buildings has been completed at the site. Annual LTS for groundwater monitoring and reporting, 10-acre cap inspections and maintenance, and CERCLA five-year remedy performance reviews will be conducted at the site.

Ms. Brennan introduced Ms. Sarah Roberts, Director, Independent Environmental Assessment and Verification Program, Oak Ridge Institute for Science and Education (ORISE).

Presentation: Independent Verification and Long-Term Stewardship – Ms. Sarah Roberts, Director, Independent Environmental Assessment and Verification Program, Oak Ridge Institute for Science and Education

Ms. Roberts began her presentation by discussing how Independent Verification (IV) can contribute to a successful LTS program at DOE sites. EM must cleanup a site and then verify that the specified release criteria were met before turning it over to LM. The role of IV is to monitor progress throughout the cleanup process and then conduct field measurements at the project's end to verify that specified end-point criteria were met.

The benefits of IV have long been recognized by EM. IV is a cost-effective mechanism that assures the site is successfully remediated to the applicable release criteria. IV enhances public confidence in the credibility of the cleanup and provides consistency among multiple D&D projects especially at large sites with multiple cleanup contractors. The IV process also ensures that D&D plans and programs are technically sound. Ms. Roberts noted that it is especially important to have the IV contractor involved early in the process to allow for the review of plans and procedures and to identify any potential problems.

DOE is spending billions of dollars on cleanup of contaminated sites each year. With the injection of Recovery Act funding, the amount of money being spent on cleanup has increased dramatically. DOE is responsible for assuring the cleanup is performed correctly and the sites are ultimately safe. DOE is also responsible for verifying that the cleanup criteria, as documented in the ROD, have been met. Verification by an independent organization adds a degree of confidence that DOE is not just relying on contractor self-assessments. The use of an independent organization provides a quality assurance check to verify that performance criteria were met. Autonomy provides assurance that the data is untainted from commercial interests.

Ms. Roberts noted that in its role as an IV contractor, ORISE typically provides its data to the state and the EPA. This does not replace programs that the states or EPA have in place, but often supplements them. Often the IV contractor works closely with these entities. In many cases, states do not have the resources to perform their own verification, so they rely on the IV contractor's data.

Ms. Roberts noted that EM has formalized its requirements for independent verification in a management plan that was issued in May 2008, and in DOE Guide 441.1 (which is still in draft form and in the review process). The management plan specifies how to implement a graded approach for independent verification, depending on the end use of the property. IV is most necessary in cases where the end use of real property is planned for unrestricted release to the public.

Ms. Roberts turned to the subject of IV's contribution to LTS goals. LM must be confident in EM's data, since this data will serve as the basis for the development of a long-term monitoring plan. IV also reduces the risk of anomalies being found during monitoring. For example, if something unexpected shows up in a groundwater monitoring sample, IV allows DOE to look at earlier reports to determine if something was truly missed or if the anomaly came from an area that was outside of the scope of the cleanup.

Ms. Roberts addressed the issue of the cost/benefit of IV. Actual costs for IV vary from site to site, depending on the complexity and size of the site. Ms. Roberts explained that funding for ORISE's IV work is supplied through a contract with SC, with each EM site responsible for providing the funding for the site's IV effort.

Ms. Roberts provided a brief summary of independent characterization, which began with the FUSRAP program. DOE asked ORISE to perform an extensive characterization of the site to determine the extent of contamination, among other things, prior to any cleanup being performed. Following that work, the cleanup contractor performs the cleanup. A benefit of independent characterization is that the results can be used to shape the cleanup requirements in an RFP, which can result in fewer scope changes, thus cost savings, once the cleanup contractor begins work.

Ms. Roberts noted that in 2008, ORISE compiled a document that captured lessons learned from IV activities in environmental cleanup. She noted that this document has been distributed to most of the field offices.

Discussion

Mr. Sullivan asked if the final status survey is typically completed before or after the ROD is signed.

Ms. Roberts responded that the final status survey typically occurs after the ROD is signed. The ROD defines what the cleanup criteria or the end point would be. The final status survey is performed by the contractor after the cleanup is complete to show that end point criteria have been met. Independent verification would take place after the final status survey was complete.

Mr. Young asked if IV activities occur in phases or simply at the very end of a project.

Ms. Roberts clarified that while ORISE has done IV both in phases and at the end of projects, it is most effective when it begins in the early phases of a project and continues through the end. Bringing the IV contractor in early to review plans and procedures, conduct in-field inspections,

watch the technicians perform the surveys, and ensure that the cleanup contractor is following procedures is where EM gets the most benefit from an independent verification.

Mr. Snyder asked if any environmental groups have shown a lack of trust in IV, since the funding source is DOE.

Ms. Roberts noted that she is often asked this question at public meetings. ORISE's reports and findings are very transparent. ORISE has identified problems at many DOE sites and those reports are documented and available. ORISE's lessons-learned documents point out issues and problems at DOE cleanup sites. ORISE does not have a vested interested in glossing anything over.

Mr. Bettencourt commented that ORISE has not performed IV work at two of EM's largest sites, SRS and Hanford.

Ms. Brennan explained that two panel discussions were going to take place. She stated that the first panel on stewardship at closed sites would consist of Mr. Dave Abelson, Executive Director of the Rocky Flats Stewardship Council, Mr. Chris Dole, Township Trustee for Crosby Township located in Ohio, and Mr. Geiser. She indicated that the second panel on stewardship at ongoing sites would consist of Mr. Bob Suyama, Vice Chair of the HAB, Mr. Murphree and Mr. Marcinowski.

Presentation: Long-Term Stewardship at Rocky Flats – Mr. Dave Abelson, Executive Director, Rocky Flats Stewardship Council

Mr. Abelson began his presentation by explaining that the best way to talk about Rocky Flats is to show photographs of the site. Rocky Flats was one of the major EM sites in the nuclear complex, spanning 6400 acres. The site contained approximately 800 buildings, including five of the 10 most dangerous buildings in the complex. In 1995, the site contained miles of underground pipes, two landfills and 12 containment ponds. The community was highly engaged and concerned with the end use of the site, which led to community dialogue about LTS. In 2006, Rocky Flats contained two landfills, 12 dams and approximately a 100 water monitoring stations. Mr. Abelson estimated that groundwater treatment at Rocky Flats will take 70 years.

Elements of stewardship include access restrictions to land and water, information management, monitoring the operation and maintenance of implemented remedies, periodic reevaluation of remedies, and research and development. Mr. Abelson indicated that LM is actively involved in addressing issues associated with the active groundwater treatment system at Rocky Flats, the Solar Ponds Treatment System. The guiding principle during the Rocky Flats cleanup was very much that stewardship is an integral component to decision-making. Ultimately, stewardship is first and foremost an EM activity that later becomes the responsibility of LM. Mr. Abelson displayed a chart detailing the process for remedy selection.

When planning for stewardship, it is often difficult to balance the near-term costs versus the long-term costs. Mr. Abelson indicated that the Rocky Flats Stewardship Tool Box had been

emailed to the Chairs. The tool box, which comprises six categories, was a collaborative effort of the Rocky Flats Coalition of Local Governments and the Rocky Flats CAB. Mr. Abelson identified four lessons learned from Rocky Flats:

- Engage early and often on stewardship
- Create both legal and physical redundancies
- Maintain federal ownership of the site
- Maintain regulator and oversight community involvement

Mr. Abelson concluded that it is important to maintain engagements with the public once a mission has been completed and a site is transferred to LM.

Presentation: Long-Term Stewardship at Fernald – Mr. Chris Dole, Township Trustee, Crosby Township, Ohio

Mr. Dole distributed copies of the Fernald Preserve newsletter that explains Fernald's relationship to Crosby Township. In addition to producing a newsletter, the Fernald Preserve distributes gift bags to visitors promoting green living. Fernald is one of the green entities of Hamilton County and Crosby Township. Mr. Dole noted that he joined the Fernald CAB in 2005 after he was elected Township Trustee; previously he was a member of the Crosby Township Board of Zoning Commission. Each area around Fernald is zoned for industry. The last year of the CAB, before its work was completed, consisted of numerous public meetings and focused primarily on future use of the site.

Crosby Township procured several discarded items after the sites closure such as emergency sirens that are now tied into a county system for tornadoes. After the site's closure, the proposal was made to establish an independent stakeholder board where the local townships and counties would have more input, but it never came to fruition. EM worked closely with the Fernald CAB and the regulators to create a vision for the Future of Fernald well before the site was closed. That vision was an undeveloped park with a Multi-Use Educational Facility (MUEF). Upon site closure LM worked with the community and the Ohio regulator to continue to restore the natural resources that EM had initiated and construct the MUEF, which ultimately became the Fernald Preserve Visitors Center. As part of the vision negotiated between EM and the community, the Ohio regulator agreed to a 90-acre disposal cell on site. Fernald was transformed into a preserve for limited use that would engage visitors and, at the same time, provide a science and history museum.

The University of Cincinnati became involved with the project, and their architectural students designed a platinum LEED[1]-certified visitor's center from an existing warehouse. Additionally, the University of Cincinnati has been conducting environmental studies, and is leasing 20 acres from Hamilton County Park District to build a research center. The Soil and Water Conservation District uses meeting facilities that are provided in the visitor's center. Similarly, Northwest

[1] Developed by the U.S. Green Building Council, LEED is an internationally recognized green building certification system that provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

High School in Colerain Township has projects at Fernald Preserve including shooting a music video and fish studies. The preserve had 10,000 visitors as of September 2009, and the Boy Scouts and Girl Scouts often take field trips there.

Outreach activities at the preserve remain active. Bird counts are currently underway, and 160 species have been spotted at the preserve. An egg hunt was recently held at the preserve that taught children about different eggs in nature. On Earth Day, a 5K race was held at the preserve.

Fernald Preserve continues to hold quarterly public meetings to update, among other things, groundwater findings and the performance of the on-site disposal facility. Mr. Dole indicated that he receives monthly email updates and phone calls alerting him to activities at the preserve. Specified burns are often conducted at the preserve, and Mr. Dole provides the information to the community regarding the purpose and location of the burns. Mr. Dole noted that the stigma associated with the site is fading, and in January 2007, the Cincinnati Enquirer published the last political cartoon about the site. Additionally, Fort Scott Housing Development will build 400 homes and 500 condo units near the Fernald Preserve. Previously, the property around Fernald was zoned for heavy industry, and there is still a rail spur that runs along the west side of the site that two chemical companies use. He pointed out that a year ago a proposal was made to build a drag strip near Fernald, but this did not fit within the land use plan of Crosby Township that was created between 2002 and 2003.

There was a lawsuit initiated by the Ohio EPA concerning Fernald, and it was determined that DOE would pay Ohio EPA $8.5 million dollars to buy a conservation easement of property surrounding Fernald. A board with representation from DOE, Ohio EPA, and Ohio Fish and Game, was created to decide which piece of property or properties would be bought and protected.

Mr. Dole commented that LM has been good to work with and, in particular, Ms. Jane Powell, the site manager, who has been very responsive.

Presentation: Long-Term Stewardship at Hanford – Mr. Bob Suyama, Vice Chair, Hanford Advisory Board

Mr. Suyama pointed out that in addition to being the Vice Chair of the HAB, he also has the responsibility of being an issue manager for LTS. Mr. Suyama defined stewardship as the responsibility to manage the site's land resource wisely and LTS, as taking care of the land for future generations. In the past, the whole site was dedicated to materials production. Presently, the site is undergoing cleanup and remediation, which will likely continue another 50 years. The site will be moving into LTS and will remain the responsibility of EM for many years to come. Hanford is currently updating its five-year LTS plan.

The Hanford site consists of 586 square miles and is currently undergoing massive footprint reduction, so that by 2015 the remaining contamination will be confined to about 10 square miles in the Central Plateau. Mr. Suyama displayed a diagram of the site's cleanup strategy and noted that 300 square miles of non-contaminated areas of the site have been dedicated to the Hanford Reach National Monument. On the remainder of the site, there are 625 waste facilities scheduled

to be demolished and 828 waste sites to be remediated. About 12 million tons of waste will be treated at the on-site disposal facility in the Central Plateau.

The River Corridor, which runs from Richland along the Columbia River, is where the site's [nine] closed plutonium-production reactors are located. It is estimated that cleanup of the River Corridor's 215 square miles will be completed by 2015. Five reactors in the area have been cocooned,* allowing radiation inside the reactors to decay over the next 70 years.

Several contractors are involved in footprint reduction at Hanford, and they are transferring remediated areas to a mission support contractor, whose responsibility is on-site LTS activities. The HAB suggested that EM establish a database of the real cost of physical and institutional controls that can be consistently applied during remedy selection. Additionally, the HAB is interested in accounting procedures used by EM in estimating long-term costs vis a vis annual Congressional appropriations.

Mr. Suyama stated that the goal of stewardship is to minimize the use of LTS, because the more extensive the cleanup, the less reliance there is on ongoing remediation and monitoring. That subject is the focus of the issue managers on the HAB. Mr. Suyama said that the HAB must have an active role in advising the Tri-Party agencies on what remedies should be selected in the future.

*The process of cocooning involves enclosing the reactors in cement and steel, air- and water-tight structures to allow the decay process to occur safely.

Presentation: Long-Term Stewardship at Oak Ridge – Mr. Ron Murphree, Chair, Oak Ridge Site Specific Advisory Board

Mr. Murphree began his presentation by stating that although stewardship shares common elements across the complex, there are unique challenges associated with ongoing mission sites like Oak Ridge.

Mr. Murphree provided the Chairs with a brief history of stewardship at Oak Ridge. The ORSSAB was formed in 1995. In 1997, the board facilitated the organization of the End Use Working Group, a broad-based community constituency that studied options for dealing with contaminated areas of the reservation. The working group was formed because the State of Tennessee did not want to make decisions that would leave contaminants in the environment without input from the public. The working group conducted its business independent of ORSSAB, and more than 100 people participated and developed its report.

In 1998, the End Use Working Group's final report was issued. It concluded that because of cost, technical, safety, and social constraints, some contamination would remain in place at a number of locations on the reservation. Group acceptance of this option was dependent on the development and implementation of a LTS program as well as groundwater protection measures. As a result, the ORSSAB formed a stewardship committee of community stakeholders to develop an effective stewardship program.

The "Stakeholder's Report On Stewardship" was issued in 1998, and established seven basic elements for the program. The program elements were authority and funding, stewards, operations, physical controls, institutional controls, information systems and research. Later that year a, the Stewardship Working Group was formed. In 1999, Volume 2 of the Stakeholder's Report was published; it outlined definite stewardship steps specific to Oak Ridge. The Stewardship Working Group produced a total of 15 recommendations. In 1999, the ORSSAB hosted a national stewardship workshop that identified 10 next steps for stewardship. Of primary importance for the workshop participants was public involvement in stewardship and development of site-specific stewardship plans. They also identified a need to institutionalize stewardship throughout DOE policy; the pursuit of legally binding agreements was mentioned in six of the steps. Funding and information were noted as vital to the effectiveness of LTS. The preamble for the next steps made it clear that DOE needed to accept responsibility for LTS of contaminated areas to protect the environment and future generations.

The ORSSAB's Stewardship Committee has issued 35 recommendations since 1995. In 2003, the committee developed a long-term strategic plan for stewardship and drafted an annotated outline for a LTS plan. The committee is also charged with reviewing the annual remediation-effectiveness report and provides a public forum for the CERCLA five-year reviews. In 2010, the committee recommended that DOE create a stewardship implementation plan. In 2005, the committee developed a stewardship education resource kit for use by local schools, conducted a teacher's workshop on how to use the kit, and developed a stewardship map that shows contaminated areas of the reservation.

Additionally, the committee has been working with Anderson and Roane County Registers of Deeds to make finding notices of contamination on land parcels easier. A number of areas on the reservation have undergone remediation and contamination activities. Activities include construction of fences restricting access to contaminated areas, warning signs, regular monitoring, excavation permits, property notices and security patrols.

As remediation continues, most of the contamination will be remediated in place. Contaminated waste from D&D activities will be disposed in on-site landfills. These areas will require LTS with active involvement from the principal and oversight stewards well into the future. At Oak Ridge there is a particular concern about stewardship when EM's work is finished. Currently, Mr. Murphree said, DOE does not have any long-term strategic plan or guidance for stewardship. There is no liaison dedicated to stewardship at ongoing mission sites, he said, and no landlord participation in LTS planning at Oak Ridge.

In summary, stewardship must be included as part of remediation and funding must be an integral part of remediation decision making. Requirements for LTS must be included in RODs and other legally binding documents. Responsibility for LTS must be clearly established.

Discussion

Mr. Darryl Bonner, member of the ORSSAB, commented that the board submitted a recommendation to EM-HQ requesting a dedicated liaison for stewardship at ongoing mission sites. EM-HQ issued a response stating that a liaison was designated however, that individual

has been transferred to other job responsibilities. Mr. Bonner also clarified that LM would be holding a stewardship workshop in November 2010, and the decision has been made to try and include other sites from around the complex.

Mr. Suyama asked if Mr. Murphree could comment on the trust fund that the State of Tennessee has for Oak Ridge.

Mr. Murphree deferred the question to Mr. Adler.

Mr. Adler responded that the trust fund was set up specifically for the active on-site disposal facility as a result of an administrative order issued by the State of Tennessee to enforce a provision of state law, which requires some post-closure liability and assurance for facilities of that type. DOE agreed under the administrative order to place set funds aside in exchange for the state agreeing to shoulder some routine surveillance and maintenance. No similar arrangements for broader stewardship functions exist at the site.

Ms. Leckband introduced a recommendation concerning LTS and stated that the Hanford site will be making some seminal decisions over the next couple of years. A number of sites associated with Hanford will be closed in an interim fashion as cleanup continues through 2050.

Ms. Nielson asked if any of the information presented by Mr. Geiser or the other panelists met the intent of the recommendation.

Ms Leckband responded that some of the HAB's concerns were addressed, but it appears that this information is located in a lot of different places rather than a centralized location for ease of access.

Mr. Young commented that LM's goals are in alignment with the recommendation, but noted that Mr. Geiser is not accountable to Dr. Triay.

Dr. Wegst pointed out that the recommendation seemed to be associated with lessons learned rather than LM. The recommendation appears to be urging EM not to lose the institutional memory of lessons learned.

Ms. Leckband explained that no part of the recommendation is aimed at LM. The intent of the recommendation is to establish a central location for information from sites that have already closed, but not from LM.

Dr. Wegst asked if the data repository that Mr. Geiser manages contains lessons learned from cleanups.

Mr. Geiser responded that lessons-learned documents were published by EM for the Weldon Spring site closure, Rocky Flats closure, and the Fernald closure. These publications dealt with stakeholder involvement, contracting approach, and end use planning. LM has everything ranging from individual analyte for each monitoring well, to annual reports that exist at sites where LM does long-term surveillance and maintenance. Overall, the remedies that were

installed are performing according to the requirements or better.

Ms. Brennan stated that much of this recommendation has to do with trying to get a handle on remediation choices, outcomes, and what lessons were learned over time. She suggested that more consideration be given to the recommendation before moving forward.

Ms. Leckband agreed to bring the recommendation to the table at the fall meeting after incorporating input from the other Chairs.

Public Comment Period

Mr. Mulvenon stated that he was very pleased with the meeting's attention to the issue of LTS. He requested that a new LTS liaison be assigned to the ORSSAB due to the fact that the previous one was reassigned within DOE.

Mr. Daniel Axelrod, a retired nuclear engineer stated that he was a member of the Oak Ridge Reservation Stewardship Working Group in 1999. He pointed out that some members of the working group recommended a $345 million trust fund for LTS, but he favored annual Congressional appropriations. Mr. Axelrod also recommended that $1 million a year be set aside for 50 years for stewardship emergency trust fund. In 1999, the working group was given a one-page summary from the-EM prime cleanup contractor of the estimated annual LTS cost, following remediation, of $20 million per year for stewardship for 300 years. Total costs of $20 million per year multiplied by 300 years would be $6 billion, which was comparable to the $6 billion for the whole Oak Ridge cleanup that was under consideration at the time. Mr. Axelrod stated that there is a need for much better study of this cost factor, and he referred the Chairs to his minority report in volume two of the "Stakeholder's Report on Stewardship," for further consideration. He expressed an additional need for each of the sites to have a summary that defines stewardship at the site. He complimented Mr. Murphree on the ORSSAB's stewardship education resource kit, but he felt it was too high-level for high school students. Mr. Axelrod recommended instead a 44-minute video there be three minute introductions and three minute question and answer sessions for a 50-minute class hour.

Significant Issues from Presentations and Discussions

Mr. Sullivan asked which office conducts the cost-benefit analysis of projects.

Ms. Nielson responded that the Office of Program Planning and Budget pieces together all of the analytical building blocks regarding cost-benefit analysis.

Mr. Snyder stated that he was very interested in the LM and LTS discussions. Portsmouth is unique because it is a long way away from a full cleanup and release of certain areas at that site.

Mr. Bonner noted that all the Chairs identified LTS as an item of interest, but he was disappointed that no site identified it as one of the top three issues.

Mr. Preacher pointed out that he was previously a member of an LTS committee, and the issue

seemed to disappear for a while. He concluded that LTS was put on the back burner due to the development of site baselines.

Mr. Maynard indicated that his main concern was post-ARRA job security for workers. The INL will lay off almost 1,000 workers if funding is cut. Mr. Maynard stated that the purpose of the ARRA money will be defeated if DOE continues to cut funding and jobs.

EM SSAB Product Discussion

Ms. Leckband explained that Hanford's recommendation regarding baseline funding was crafted out of concern that when the ARRA money is gone in 2011, baseline funding at the site may not be maintained. Specific work is attached to baseline funding, and when the ARRA funds are gone, the obligations to complete that work will still exist.

Ms. Nielson stated that Ms. Flohr was sorry she could not be present to answer questions or provide input on this particular recommendation, but she left a couple of comments for the group. She asked Ms. Leckband to change the term "baseline" to "base program" in the recommendation because baseline has a different meaning at EM-HQ. Ms. Nielson noted that planning is underway to address post-ARRA issues and that the Chairs may want to consider requesting someone working on that plan to speak at the next meeting.

Mr. Bettencourt commented that issues with the recommendation still needed to be fleshed out. He asked if the recommendation focused solely on the base program or jobs for workers who have been trained under the ARRA. The SRS CAB submitted a recommendation a year ago that dealt with the upside of the ARRA funding.

Ms. Leckband responded that the recommendation does speak to the issue of jobs because the stability of base program funding would encourage maintaining a skilled workforce.

Ms. Cimon pointed out that ARRA provided a lot of skilled jobs at Hanford, and the work is far from being complete.

Ms. Luczak pointed out that in terms of structure the recommendation appeared to be more of a letter. She interpreted the basic recommendation to be that the base program should take advantage of the trained workforce currently in place, in addition to taking into consideration compliance agreements.

Mr. Young commented that these workers cannot stay on at the sites unless the base funding is increased by the amount of ARRA funding

Ms. Leckband stated that she is aware of the buzz that DOE may offer early retirement incentives could result in the ARRA workers potentially stepping into vacant positions. Ms. Leckband stated that she would incorporate the edits received at the meeting and re-send the recommendation to the Chairs for another look.

Mr. Bonner pointed out that there is an assumption in the recommendation that DOE is being

asked for a 2012 base program budget that is not only compliant with meeting negotiated cleanup levels and time lines, but takes advantage of a trained workforce.

Mr. Maynard asked for a proposed timeline for the recommendation's submittal.

Ms. Nielson pointed out that most of the boards likely would not be able to vote by the May 5 deadline of site budget submittal to EM-HQ. Although there will not be any back and forth on numbers after that deadline, the Chairs should still give the sites budget input.

Closing Remarks

Ms. Nielson reminded the Chairs to submit topics of interest for the next meeting to the NNMCAB or Ms. Brennan. She also noted that when Dr. Triay attended the Combined Intergovernmental Meeting in October, she indicated that the ARRA work will not end in 2011 and may continue into 2015.

Ms. Patricia Halsey, Federal Coordinator for the ORSSAB, thanked the Chairs and her support staff for a successful meeting.

Ms. Brennan adjourned the proceedings at 12:30 p.m.