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

PUBLIC MEETING MINUTES

DoubleTree by Hilton Hotel
2651 Perimeter Parkway, Augusta, Georgia 30909
April 22-23, 2015

LIST OF ACRONYMS

AIB – Accident Investigation Board
AMWTP – Advanced Mixed Waste Treatment Project
ANA – Alliance for Nuclear Accountability
CAB – Citizens Advisory Board
CROET – Community Reuse Organization of East Tennessee
DDFO – Deputy Designated Federal Officer
DOE – Department of Energy
DUF6 – Depleted Uranium Hexafluoride
EFCOG – Energy Facility Contractors Group
EIS – Environmental Impact Statement
EM – DOE Office of Environmental Management
EM SSAB – Environmental Management Site-Specific Advisory Board
ETTP – East Tennessee Technology Park
FY – Fiscal Year
GTCC – Greater Than Class C
HAB – Hanford Advisory Board
Hanford – (DOE) Hanford Site
HEPA – High Efficiency Particulate Air
ICP – Idaho Cleanup Project
HLW – High-Level Waste
HQ – EM Headquarters Office
INL – Idaho National Laboratory
INL CAB – Idaho National Laboratory Site EM Citizens Advisory Board
ISM- Integrated Safety Management
IWTU – Integrated Waste Treatment Unit
LANL – Los Alamos National Laboratory
NMED – New Mexico Environment Department
NNMCAB – Northern New Mexico Citizens' Advisory Board
NNSA – National Nuclear Security Administration
NNSS – Nevada National Security Site
NRC– Nuclear Regulatory Commission
NSSAB – Nevada Site-Specific Advisory Board
Oak Ridge – (DOE) Oak Ridge Site
OMB – DOE Office of Management and Budget
ORP – Office of River Protection
ORSSAB – Oak Ridge Site-Specific Advisory Board
Paducah – (DOE) Paducah Site
Paducah CAB – Paducah Citizens Advisory Board
PFP – Plutonium Finishing Plant
PHOENIX PNNL – Hanford Online Environmental Information Exchange
Portsmouth – (DOE) Portsmouth Site
PORTS SSAB – Portsmouth Site-Specific Advisory Board
RAD – Radioactive
RH – Remote-Handled waste
SC – DOE Office of Science
SCIP – Safety Culture Improvement Panel
SCWE – Safety Conscious Work Environment
SRS – (DOE) Savannah River Site
SRS CAB – Savannah River Site Citizens Advisory Board
SWPF – Salt Waste Processing Facility
TRU – Transuranic Waste
WCS – Waste Control Specialists
WIPP – Waste Isolation Pilot Plant

PARTICIPANTS

Hanford Advisory Board: Stephen Hudson, Chair; Susan Leckband, Vice Chair; Jeffrey Frey, Co-Deputy Designated Federal Officer; Joanne Grindstaff, Co-Deputy Designated Federal Officer; Kristen Skopeck, Federal Coordinator; Sharon Braswell, Contractor Support Staff

Idaho National Laboratory Citizens Advisory Board: Herb Bohrer, Chair; Harry Griffith, Vice Chair; Jack Zimmerman, Deputy Designated Federal Officer; Bob Pence, Federal Coordinator; Ann Riedesel, Contractor Support Staff

Nevada Site-Specific Advisory Board: Donna Hruska, Chair; Steve Rosenbaum, Member; Kelly Snyder, Deputy Designated Federal Officer; Barbara Ulmer, Contractor Support Staff

Northern New Mexico Citizens' Advisory Board: Doug Sayre, Chair; Irene Tse-Pe, Vice Chair; Gerard Martinez, Member; Michael Gardipe, Co-Deputy Designated Federal Officer; Menice Santistevan, Contractor Support Staff; William Alexander, Contractor Support Staff; Alyssa Schreiber, Student Liaison

Oak Ridge Site-Specific Advisory Board: David Hemelright, Chair; Alfreda Cook, Member; Robert Hatcher, Member; Melyssa Noe, Federal Coordinator; Pete Osborne, Contractor Support Staff

Paducah Citizens Advisory Board: Ben Peterson, Chair, Judy Clayton, Member; Robert Smith, Federal Coordinator; Eric Roberts, Contractor Support Staff

Portsmouth Site-Specific Advisory Board: Will Henderson, Chair; Vice Chair; Robert Berry, Member; Richard Greene; Greg Simonton, Alternate DDFO; Julie Galloway, Contractor Support Staff

Savannah River Site Citizens' Advisory Board: Harold Simon, Chair; Nina Spinelli, Vice Chair; Robert Doerr, Member; David Hoel, Member; Virginia Jones, Member; Earl Sheppard, Member; de'Lisa Carrico, Acting Federal Coordinator; Tina Watson, Contractor Support Staff; James Tanner, Contractor Support Staff; Jesslyn Anderson, Contractor Support Staff

DOE-EM Headquarters:
Mark Whitney, Acting Assistant Secretary for Environmental Management
Connie Flohr, Acting Deputy Assistant Secretary for Program Planning and Budget
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Julie Goeckner, Senior Advisor for Nuclear Safety Culture

Catherine Hampton, Office of Communications
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Elizabeth Schmitt, Office of Intergovernmental and Community Activities
Alexandra Gilliland, e-Management
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Others:
Terry Spears, Deputy Manager, Savannah River Operations Office
Hardie Davis Jr., Mayor of Augusta, Georgia

MEETING MINUTES

The U.S. Department of Energy's (DOE) Office of Environmental Management (EM) Site-Specific Advisory Board (SSAB) met on Wednesday, April 22, 2015, and Thursday, April 23, 2015, at Doubletree by Hilton Hotel in Augusta, Georgia. Participants included EM SSAB officers and members, DOE staff, EM SSAB Deputy Designated Federal Officers (DDFO), Federal Coordinators and contractor support staff. The meeting was open to the public and conducted in accordance with the requirements of the Federal Advisory Committee Act. All meeting presentations are available online at http://energy.gov/em/downloads/chairs-meeting-april-2015.

Day One: Wednesday, April 22, 2015

Opening Remarks

Mr. David Borak, Designated Federal Officer for the EM SSAB, called the Chairs Meeting to order at 8:08 a.m. EST. EM SSAB representatives and all meeting attendees were introduced. Welcoming remarks were provided by Mr. Terry Spears, Deputy Manager, Savannah River Operations Office; Mr. Harold Simon, Chair, Savannah River Site Citizens Advisory Board (SRS CAB); and Mr. Hardie Davis Jr., Mayor of Augusta, Georgia. Mr. Eric Roberts, the meeting facilitator, reviewed the agenda and logistical details.

EM Program Update

Mr. Mark Whitney, Acting Assistant Secretary for DOE EM, provided an EM update presentation focusing on the past year's progress and what the program hopes to accomplish in Fiscal Year (FY) 2016.

Since the beginning of its mission, EM has reduced its physical footprint by 90 percent, going from about 3,100 square miles to roughly 300 square miles. EM started with cleanup work in 107 sites in 35 States, but is now focused on the remaining 16 sites in 11 States. To date, approximately $144B in cleanup work has been completed.

Mr. Whitney highlighted examples across the complex of real progress that has been completed over the past year:

- At Hanford, the Plutonium Finishing Plant (PFP) is about 75 percent ready for demolition. There were about 238 glove boxes in the PFP that needed to be removed, and DOE has safely demolished 90 percent of them.
- In Paducah, EM has taken over the USEC facility and is planning to begin cleanup work. Mr. Whitney thanked the community for its help and support on this project.
- At Portsmouth, EM plans to begin demolition of the X-326 facility by the start of FY 2016. EM is also doing significant groundwater cleanup at the site.
- In Idaho, EM continues to exhume the buried waste, with about 3.75 acres of the total 5.69 acres of targeted waste has been exhumed. With a total of nine accelerator retrieval projects, EM is moving forward with the eighth and the largest of the buried waste exhumation projects.
- At the Nevada National Security Site (NNSS), EM completed the surface cleanup campaign at two of the historic nuclear test locations.
- At SRS, EM has processed five million gallons of salt solution at the Salt Waste Processing Facility (SWPF).
- At Oak Ridge, demolition crews are continuing progress at Building K-31, the fourth of five main gaseous diffusion process buildings on the East Tennessee Technology Park (ETTP) site. After that, EM will focus on K-27, the last of their gaseous diffusion process buildings.

Mr. Whitney then discussed EM's FY 16 budget request, which at $5.818 billion, represents an approximately $200 million increase over the FY 15 budget. The FY 16 request fully supports the resumption of operations at the Waste Isolation Pilot Plant (WIPP), which is a priority for EM.

Approximately 40 percent of the request will support EM's Liquid Waste Program, another high priority for DOE. The Secretary of Energy has outlined his vision for treating liquid waste, which involves treating the waste as soon as practicable. EM believes it can do that by 2022, through the Defense Direct-Feed Low-Activity Waste process.

EM will continue to retrieve waste from single-shell tanks, including the entire C Tank Farm at the Office of River Protection (ORP) in FY 16. Retrieval of ORP's A and AX Tank Farms will hopefully begin in FY 17.

At Idaho, the FY 16 Request supports operations at the Integrated Waste Treatment Unit (IWTU). An IWTU simulant run earlier this year was successful.

At SRS, EM plans to complete construction of the SWPF, which is critical to the liquid waste mission at SRS.

At Hanford, the PFP is completely funded in the proposed budget, which would complete that facility by the end of FY 2016.

At Oak Ridge, the proposed budget will allow EM to finish work at the Gaseous Diffusion Plant at ETTP and K-27.

At Los Alamos, EM is working to move forward on efforts to address chromium plume contamination. EM is also negotiating its consent order with the State of New Mexico, and trying to put a number of contracts in place.

Mr. Whitney concluded his remarks by noting that EM has a number of one-of-kind projects with unique technical challenges, but that he is confident it will be able to meet those challenges make significant progress in the coming years. He said that EM's stakeholders, particularly the local advisory boards, are an essential part of the information exchange needed to keep the program running. He then reiterated his changes to the EM SSAB Chairs that were laid out at the fall meeting in Idaho: waste disposition, budget priorities, and citizen engagement.

Mr. Whitney thanked the Chairs for their volunteer work for the EM program.

Discussion

Ms. Susan Leckband, Vice Chair of the Hanford Advisory Board (HAB), noted that there has been some recent information regarding boreholes in conjunction with separating defense waste from commercial spent nuclear fuel. She inquired as to whether EM is considering investing funds into this issue. Mr. Whitney explained that DOE is in the initial stages of research, and the Secretary of Energy is looking at the possibility of deep boreholes for waste such as cesium-strontium capsules from Hanford. If the borehole research pans out, there might be an opportunity for high-level waste (HLW) in a defense-only repository.

Mr. Herb Bohrer, Chair of the Idaho National Laboratory (INL) CAB, asked about the status of Mr. Whitney's "acting" Assistant Secretary designation. Mr. Whitney explained that Dr. Monica Regalbuto has been re-nominated by the President to be appointed as the Assistant Secretary for Environmental Management.

Mr. Bob Berry, Vice Chair of the Portsmouth SSAB asked about the status of the barter system at the Portsmouth site and whether a lawsuit might take away the profits from the barter system. Mr. Whitney explained the barter system has allowed EM to accomplish a lot of extra work at the site. He was unsure about the status of the lawsuit. DOE is working on another Secretarial Determination for uranium transfers, and DOE has requested public comment for the Draft Determination Analysis. Currently uranium prices are relatively high, but the uranium material is not going to last forever.

Presentations: Chairs Round Robin: Chairs' Site Reports

<u>Savannah River Site Citizens Advisory Board (SRS CAB) – Harold Simon</u>

At an SRS CAB meeting in March 2015, the board discussed its prioritization list and voted that that Liquid Waste Disposition at SRS would continue to be the board's top priority. Mr. Simon believes that the Liquid Waste Program is the greatest environmental risk at SRS; the program

has been a priority issue for the SRS CAB for several years. The public also continues to raise this issue with the SRS CAB.

Currently, DOE has fallen short of meeting enforceable milestones to close radioactive waste storage Tanks 12 and 16 in H Tank Farm. In August 2014, SRS requested an extension under the Federal Facilities Agreement Act to extend the operational date of the tanks. The Environmental Protection Agency Region 4 in South Carolina non-concurred with the request. SRS invoked an informal dispute resolution in September 2014, and subsequently it was elevated to the South Carolina District Attorney in January 2015. DOE and the State of South Carolina then agreed to extend the closure deadline for the tanks

The SRS CAB recommends that DOE fully support the budget request submitted by SRS for FY 17 and beyond, in order for SRS to complete the tank closure program. Full funding for the program will enable SRS to achieve its milestones and comply with the Federal Facilities Agreement Act.

In January 2015, the SRS CAB submitted a proposal to SRS to develop a comprehensive training and development program for SRS CAB members educate them on issues related to nuclear materials and legacy waste at SRS. The creation of a training program is one of the SRS CAB's eight current priorities. As the SRS CAB receives new members and strives to sustain the board's proficiency, a training program is necessary.

The training program has been drafted by the SRS CAB Support Team; once completed, the program will be used to support the SRS CAB's outreach program, which strives to educate the public. Mr. Simon added that SRS is currently working to obtain the necessary funding to support the training program.

Oak Ridge Site-Specific Advisory Board (ORSSAB) – David Hemelright

Mr. Hemelright, Chair of the ORSSAB, mentioned that at Oak Ridge, building demolition and land cleanup has been under way for several years. The most challenging demolition project was the K-25 building, because the building had deteriorated over a number of years. Demolition began in December 2008 and was completed in December 2013. The K-25 will become an historical site after receiving a formal dedication. A replica of one section of the K-25 is being built to show the size and the scope of the gaseous diffusion process. K-29 and K-33, which were also gaseous different plants, have been both demolished, and the land had been cleared. The K-31 is being demolished and the K-27 is being prepped.

The Oak Ridge Reservation is transitioning into the stewardship and reindustrialization phases. The total area of the ETTP – the former site of K-25 – is 2,200 acres divided into two zones, with Zone 1 surrounding most of Zone 2. Zone 2 is the main industrial area where the gaseous diffusion processes took place. DOE will make the land available for use, and transfer it to the Community Reuse Organization of East Tennessee (CROET). CROET will then sell or lease the property to private enterprises.

Assets transferred to the city of Oak Ridge to date include:

- 700 acres of land
- 14 buildings totaling 332,000 square feet
- Site infrastructure: roads, services, sewers, water and a fire station

Leased assets to date include 530 acres of land leased to private companies. There are 25 private companies operating in ETTP, and over 400 acres of land are planned for disposition by FY 17. The major selling point to bring companies into the ETTP is that the site is close to Interstate 40, which is a major interstate. There is a main line rail to the west of the Oak Ridge site, and there is barge access up the Clinch River. There is also an on-site airstrip proposed that is being investigated for environmental impact and feasibility. When the demolition of K-27 and K-31 is finished there will be about 700 more acres of plant land available for development.

CVMR USA, a company that produces metal powders used in 3-D printing, recently decided to move their world headquarters to Oak Ridge. The company is a world leader in the manufacture of metal powders used in the aerospace, energy, automotive and medical instrument manufacturing industries, which is aligned with the mission of Oak Ridge.

Oak Ridge is also becoming a tourist destination. In March 2015 the announcement of the Manhattan National Park Project, involving Oak Ridge, Los Alamos and Hanford was revealed.

Ms. Leckband asked if there were any issues with deed restrictions for Oak Ridges' reindustrialization as a result of the mercury contamination on the site. Mr. Hemelright responded that only the Y-12 area was affected by mercury contamination. There are covenants and deed restrictions, as well as a permitting process that will be run through DOE. Oak Ridge is also in the process of running a mock land transfer to see how the process works before it is time to conduct major transfers.

Portsmouth Site-Specific Advisory Board (PORTS SSAB) – Will Henderson

The Portsmouth site is approaching completion of its mission, and there are regulatory decisions to be made in the near future. The projected completion date for the site is 2039 based on current budget levels, but the timeline could be reduced with increased funding.

The site continues to explore asset transfer opportunities through the local Community Reuse Organization. The PORTS SSAB continues to be concerned about the uranium barter, and believes that the approach needs to be consistent with previous requests from the PORTS SSAB. Lastly, funding continues to be an issue for the site.

Idaho National Laboratory (INL) Site EM Citizens Advisory Board (CAB) – Herb Bohrer

In Idaho, there are two primary ongoing efforts, the first being that the site continues to work on shipping transuranic (TRU) waste off-site for storage and disposal. INL's agreement with the State of Idaho mandates that the site take action to remove the waste off site to permanent disposal sites.

The other primary activity is treating the liquid waste associated with fuel processing at the Tinmouth Processing Plant. In the longer term, INL will work on processing calcine HLW. The INL CAB is currently concerned about the status of WIPP. INL has been the largest shipper to WIPP, and will continue to be for some time. INL is also generating waste from retrieval activities such as exhuming waste at the Radioactive Waste Management Complex. The site is certifying and packaging the waste to get it ready for shipment to WIPP, once the facility is operational.

The Advanced Mixed Waste Treatment Plant (AMWTP) is taking the stored waste from the Rocky Flats site and treating and certifying it for disposal at WIPP. Mr. Bohrer added that DOE has informed INL that sufficient storage space remains for some period of time, but the INL CAB feels that the prolonged shutdown of WIPP will exacerbate the issue. The INL CAB hopes that WIPP will become operational again in the near future. The board has been communicating with DOE to make sure that INL gets priority treatment for shipping resources because INL has court ordered settlement agreements with the State of Idaho associated with meeting milestones for shipping waste off the site.

The IWTU also has associated agreements. The unit is slated to process the remaining liquid HLW from fuel preprocessing activities. Fines have been levied because of delay of the startup of the IWTU. There is a provision in the IWTU's Penalty Agreement that penalties will not be assessed if delays are due to environmental safety concerns; another simulant run will be conducted soon. There is also a ban on shipping of spent fuel into the State of Idaho for research, which has caused controversy.

There is a procurement in process; the current cleanup projects at the site will be split into four different contracts. The INL CAB is concerned about the transition issues involved with the splitting of the contracts and the core safety functions, especially because the AMWTP contract transition did not go smoothly. The board has communicated its concerns to DOE.

The INL CAB also reviewed the budget priorities briefing provided by DOE and sent a letter to DOE about the issue.

Northern New Mexico Citizens' Advisory Board (NNMCAB) – Doug Sayre

The NNMCAB currently has three main focus areas.

1. The NNMCAB is interested in reducing the inventory of surface TRU waste at the Los Alamos National Laboratory (LANL). The board has had meetings with WIPP staff to discuss the recovery process and how the NNMCAB can help to make the process be completed as safely possible, so that several of the generator sites can resume shipping TRU waste to WIPP.

2. The NNMCAB feels that the board is limited in how it can address the EM waste at Los Alamos; the board would like to see the allotted budget increased to $225M from the current reduction.

3. The NNMCAB is considering adopting a Supplemental Environmental Projects program, to

ensure that DOE funds are allocated for cleanup of legacy waste disposal at Los Alamos, rather than for payment of violations cited by the New Mexico Environmental Department (NMED). The NNMCAB recently put forth a recommendation on this issue. The board believes that using funds to conduct projects would be more worthwhile than reducing the site's budget by levying a fine.

In terms of accomplishments, the NNMCAB has had good board participation from its 21 members. The board focuses on recruiting members who represent the culture around Northern New Mexico, including the Native American tribes. Mr. Sayre added that the NNMCAB's student liaisons have been beneficial, and the board would like to expand that program to other areas.

Paducah Citizens Advisory Board (Paducah CAB) – Ben Peterson

The Paducah CAB is still focused on many of the same issues reported last meeting, including how to communicate effectively with DOE and receive more communication and integrated plans from DOE.

Mr. Peterson, Chair of the Paducah CAB, mentioned that the way DOE does contracting is also of concern. He believes that a discussion should be had about how DOE can conduct contracting in a way that helps DOE, the community and the site. It is important to keep the continuity of the work for the site and the contractors. Mr. Peterson explained that the way that DOE currently conducts contracting makes it difficult to do long-range planning. Even when a contract is put in place quickly, the contractors must begin figuring out if they need to rebid again because there is a two-year lead time on the contracts. Mr. Peterson added that this process takes away from the work the contractors could be completing.

The Paducah CAB would like DOE to continue efforts to develop a third-generation laser enrichment facility. The Paducah CAB would also like DOE to facilitate on-site nickel recycling. The board is aware that a report regarding the testing for the carbon-nickel process is in final form at EM Headquarters (HQ); the Paducah CAB looks forward to hearing about the report and about HQ's plans for which actions may be taken, whether in the form of a moratorium, a pilot plant or some other path forward.

Mr. Peterson noted that Mr. Whitney mentioned that being fully informed helps the decision-making process. Mr. Peterson added that this goes both ways– being fully informed as Paducah CAB members helps the board give DOE better information as well. Communication has improved at Paducah, but there are still things to work on, including making sure that information gets filtered from HQ to the site level and reverse.

Hanford Advisory Board (HAB) – Steve Hudson

Mr. Hudson, Chair of the HAB, explained that when HAB was formed 20 years ago there were a number of critics that said the board would not last, and that the Hanford site would be cleaned up within 20 years. In thinking about the work the HAB has done, Mr. Hudson asked the HAB members review the HAB's 281-plus pieces of advice, and almost equal number of letters,

commentaries and reviews. It was remarkable to see that the HAB's value systems, concerns and focus on issues has been consistent over the years,

Issues that have recently had a large impact on the HAB include a report on tank farm vapors. The report was significant; it outlined ten overarching issues related to tank vapor contamination at Hanford, 47 specific recommendations and directions for an implementation plan. This report had a significant impact upon the HAB members; the reports spurred discussions and the initial response from the HAB members was not very complementary.

The HAB developed a Central Plateau Area Principles advice that included 15 points of advice. There were also four pages of additional notes that were added to the HAB's board minutes to outline the arguments that were used to arrive at the 15 advice points. The notes were used to show how the arguments and rationales were developed, and how the HAB arrived at consensus.

The HAB has struggled to express the importance of technical issues to the public and to make sure that all of its members are able to participate effectively within the board's discussions. Using phones and e-mail does not work well since face-to-face interaction is preferable. The HAB is trying to find out how to improve these issues.

After discussing the documents and focusing on how the HAB can change its methods, and after the passage of the Central Plateau advice, the HAB membership realized that the solutions they were seeking would not be realized during their lifetimes. This realization affects the HAB members as well as the communities the board represents. The HAB find it challenging to reach the entire community because there is a large population and the board's budget is limited.

Nevada Site-Specific Advisory Board (NSSAB) – Donna Hruska

Ms. Hruska, Chair of the NSSAB, discussed her attendance at the 2015 Waste Management Symposium in Phoenix in March 2015. The NNSS was selected as a featured site, and one of the four days of technical programs was devoted to topics concerning the NNSS.

Ms. Hruska presented at a session that focused on strategy and progress made in characterization of groundwater contamination. Her presentation focused on the community communication programs in which the NSSAB is involved. Mr. Hruska was also a panel participant during a session, which included staff from the Nuclear Waste Project Office and liaisons to the NSSAB who are from Clark and Nye Counties in Nevada.

Ms. Hruska noted that in 2014 the NSSAB provided Nevada Field Office with 26 recommendations; 22 were implemented and four were partially accepted. In May 2014, the NSSAB provided a recommendation to DOE suggesting that the organization develop a graphic representation depicting the direction of groundwater travel, the location of underground tests, and the current basic sampling results. The NSSAB recommended that DOE research the best format to depict this information, and that the result be accessible, timely, easy to understand and made available on the Nevada Field Site web site. The NSSAB reviewed a working draft at its January 2015 meeting. The draft was an exhibit at the NSSAB's groundwater open house in February 2015, where additional public comments were gathered. The NSSAB hopes to review

the final graphic representation soon.

The NSSAB was prompted to come up with the groundwater animation recommendation after seeing a presentation on the Hanford site's PNNL-Hanford Online Environmental Information Exchange (PHOENIX) program. Groundwater is a big issue for rural communities, particularly ones that have agricultural aspects. A graphic representation would help to communicate this issue with citizens in outlying areas.

The NSSAB strives to provide learning opportunities for its members, including:

- Educational sessions prior to each board meeting
- Updates and briefings
- Tours related to work plan items and orientation tours
- Workshop participation in a community environmental monitoring program
- External peer reviews
- Transportation table-top exercises
- Information on the groundwater quality assurance plan process
- Information on waste management audits of NNSS generators.

The NSSAB considers diversity one of its accomplishments and continuing challenges; the board strives to represent the diverse surrounding communities. The NSSAB board members represent urban and rural populations as well as mining, agricultural and metropolitan communities. Site activities influence citizenry in much of southern and central Nevada, and developing new programs and methods to communicate with the citizens surrounding the NNSS is one of the NSSAB's current challenges.

EM Budget Update

Connie Flohr, then Acting Deputy Assistant Secretary for the Office of Program Planning and Budget provided an update on the status of EM's FY 2015 funding, FY 2016 budget request, and outlook for FY 2017.

FY 2015 began under a Continuing Resolution. On December 16, 2014, an omnibus was signed, funding EM at a level of $5.861M, which was $239M above the President's request. Funding was released under 30-day allotments during the first few months of the fiscal year while EM worked to finalize its spend plans. The 30-day allotments ended in early April when EM was issued and apportionment for the third quarter of FY 2015. Funding for the fourth quarter of FY 2015 will be released in late June.

The President's budget request for FY 2016 was released in early February, followed by Congressional hearings in March. The House published it's mark-up of the request on April 22. The Senate mark-up was expected shortly thereafter.

The FY 2016 budget request supports clear, discrete progress in the cleanup of the environmental legacy of the Cold War. In particular, it will allow EM to:

- Continue recovery of TRU waste disposal operations at WIPP.
- Continue construction of the Low Activity, Lab, and Balance of Facilities at the Waste Treatment and Immobilization Facility and design of the Low Activity Waste Pretreatment System at Hanford.
- Continue DWPF liquid waste processing and support construction and commissioning of the SWPF at SRS.
- Complete major facility cleanout and demolition projects.
- Address key infrastructure needs across the complex.

Ms. Flohr reviewed how the request was broken down by major functional category and site. She then reported a summary of the House mark-up for FY 2016. The mark came back from the House at $5.9B, well above the President's request of $5.8B. Once the Senate mark-up is released, both chambers will conference to develop the actual budget appropriation to be voted out for FY 2016. She cautioned that some sites that may have been favored in the House mark may not be favored in the Senate, and vice-versa. DOE will have an opportunity to offer up conference appeals for consideration during the conferencing process that may influence the final result.

Ms. Flohr then laid out the budget development process for FY 2017 and discussed opportunities for EM SSAB involvement. In January 2015, HQ issued a memorandum to the site managers directing them to engage the EM SSAB and other stakeholders early in the budget formulation process, specifically in the February – March timeframe, before the information becomes embargoed. The Chairs' feedback on that engagement is welcome.

Once budget information becomes embargoed in late April, DOE cannot discuss target levels and specific figures publicly. However, discussions regarding what priorities are important to the EM SSAB and other stakeholders can be discussed.

Internal deliberations will take place over the summer and the final product will be submitted to the DOE Office of Management and Budget (OMB) in the September timeframe. OMB will work on the budget throughout the fall before everything is rolled out to Congress in early 2016.

Mr. Bohrer suggested that in the future, local CAB meetings be scheduled for the February-March timeframe to ensure there is opportunity for timely engagement on the budget. The Idaho CAB did not have a regular board meeting scheduled for this past February and instead had to convene a subcommittee teleconference to discuss the FY 2017 budget. If the budget development process is somewhat predictable in its timeframe, it would make sense to schedule EM SSAB meetings accordingly.

Ms. Flohr and Mr. Whitney agreed with Mr. Bohrer's suggestion. Mr. Whitney added that the late January-February timeframe would be best to schedule the local board meetings and begin budget priority discussions with the members. Ms. Flohr noted that in recent years, there have been delays in rolling out the budget, but assuming a more predictable schedule going forward, the February timeframe would be useful.

Ms. Leckband noted that the Hanford Advisory Board is concerned with keeping the public

informed about the budget and is frustrated with the information available. The Hanford budget covers a lot of work and it's difficult to provide informed input without understanding the impact of prioritizing one activity over another. Providing input becomes increasingly difficult as information becomes embargoed.

Ms. Flohr added that EM could not discuss the targets it receives from OMB after the budget becomes embargoed. However, more general discussions regarding project priorities could continue without divulging the actual numbers.

Ms. Hruska asked whether there were any graphics developed to depict EM cleanup projects and the levels of funding needed for completion. Some sort of visual may be helpful to the public and could be used to better explain the budget process and the resources needed for to accomplish specific activities.

Ms. Flohr responded that EM tracks life-cycle costs and agreed to look into how that information could be communicated at the level Ms. Hruska noted.

Mr. Hudson noted that the HAB reviews the lifecycle report on Hanford activity, produced in accordance with the Tri-Party Agency agreement, and is concerned that it does not seem to take into account recent changes at the site that will impact costs. Since the report appears to be somewhat static, it may be of limited use.

Ms. Flohr reported that HQ is working to reestablish a review board to evaluate Requests for Changes that would be incorporated into the overall EM lifecycle. Once that process is back on track, the issues with the report that Mr. Hudson mentioned should be addressed.

Mr. Henderson, Chair of the PORTS SSAB, stated that the Portsmouth site has a unique funding situation with the Uranium barter, and expressed concern that EM has used an unrealistic valuation for Uranium in its forward-looking projections. The Portsmouth SSAB would like EM to make those projections more conservative.

Mr. Whitney thanked Mr. Henderson for his comment and added that the FY 2016 request reflects a more conservative approach to valuation than in previous years.

The Q&A concluded with remarks from Ms. Leckband thanking Ms. Flohr for her presentation and candid dialogue with the Chairs.

Chairs Roundtable Discussion: Budget Best Practices

The attendees discussed a draft document prepared by Mr. Hudson following the Idaho EM SSAB Chairs meeting that captured practices and considerations used by each site board for developing budget advice and/or recommendations. The draft paper was divided into four sections: Principles and Considerations; Information; Education; and Communication. Mr. Hudson explained that the intent of the document was not to be prescriptive for how boards should operate when it comes to providing budget input. Rather, it could serve as a resource, offering different methods that may be applicable for local boards.

Mr. Hemelright noted EM's intent to partner with stakeholders to better align cleanup priorities and commitments with expected performance and funding levels. If stakeholders continue to advocate for their priorities, the funding will have to eventually follow.

Mr. Roberts noted that although each community is different and that the local boards' approaches vary, budget discussions still need to align with the general budget request schedule.

Mr. Peterson noted that the Paducah CAB has struggled with the level of budget information made available. The members have asked for a simple, snapshot of information on spend-rates for projects, employment levels, and updates on upcoming projects and deadlines for educational purposes. Some sort communication tool like that would be helpful to reference during regular board meetings and would assist the board in providing more informed input.

Mr. Bohrer highlighted the value of the local boards in identifying priorities for the sites. The details of the budget numbers are not as important as whether stakeholders agree that the money is being used in the best way possible to mitigate risks and address any other issues that may exist. The EM SSAB does not have direct influence over the gross dollars EM receives, but it should have some influence as part of the public on determining how those dollars are used.

Mr. Peterson emphasized the importance of communication between HQ, field site management, and the local boards. Better information leads to better recommendations. That information has to include more background on the budget process, the status of what is being accomplished in the current FY (FY 2015), and an overview of what is planned for the upcoming FY (FY 2016), before stakeholders can make informed recommendations on priorities for the next request (FY 2017). At any given time, there are three budget years being discussed and they cannot be discussed in a vacuum. The planning process and discussions regarding budget priorities need to be more integrated across that three year window instead of just asking the boards to look at one categorical project list for one FY.

Mr. Griffith, Vice Chair of the INL CAB, asked whether EM had any best practices to share with the members from its management. Mr. Whitney relayed his experience as a former site manager at Oak Ridge. He indicated that it's important to collect as much input as possible from a variety of sources. For example, the Oak Ridge Partnership, which serves as a forum for local governments and other stakeholders, is one resource for input. The ORSSAB is of course another. When the information reaches HQ, Mr. Whitney expects it to be fully informed and will ask questions about the local community's priorities, the regulators' priorities, etc. That information needs to factor into EM's decisions.

Mr. Borak asked the Chairs for clarification on what sort of product they planned to create with the draft document developed by Mr. Hudson. After deliberation, the Chairs agreed that the product was a white paper of best practices that would be made available to the local boards.

Ms. Cook, member of the ORSSAB, summarized the document as such: the boards need to understand the funding allocations and how that funding will be used at the site level across projects. The boards also need to understand the scope of those projects and be comfortable that

they are prioritized appropriately. In order to reach that level of understanding, the boards and their site management needs to meet to discuss the status of those projects regularly. The boards also need to understand the budget cycle to ensure they have the background needed to make informed recommendations.

Ms. Spinelli, Vice Chair of the SRS CAB, added that the document was well-written and emphasized the importance of the boards understanding how the budget works and how it impacts the sites' missions. The document leaves enough flexibility for each board to independently decide what practices are useful.

Mr. Borak noted that the local boards could consider the white paper and integrate any applicable best practices into their approach to the FY 2018 budget development cycle that will begin in January 2016.

Roundtable Discussion: DOE Communication Strategies

Ms. Candice Trummell, Director, External Affairs, discussed communication strategies around the complex.

Ms. Trummell asked the Chairs what types of communication materials have been successful and what types of materials they would like to see developed. She gave examples of materials used at various sites. SRS sets up informational kiosks, known as info pods in communities interested in SRS cleanup. The site also sends out site updates to stakeholders via email. Hanford has produced videos, most notably the award-winning documentary, "The Hanford Story."

All EM sites have their own websites and publish press releases. Some use GovDelivery, which is an automated email service where members receive press releases and notifications by topic or site. GovDelivery has been very effective; since it was first introduced, EM's subscriber base has grown about 350 percent.

DOE sees its interactions with the EM SSAB as ways to help inform DOE's decision-making. Ms. Trummell stated that it is DOE's obligation to communicate with the public, but the EM SSAB's input on how DOE can improve communications is invaluable.

Ms. Trummell shared a series of draft fact sheets known as "EM by the Numbers," that were prepared for each site, and asked for comments and suggestions. EM has found that infographics are useful communications tools.

EM would like to use the fact sheets to give new congressional staffers a quick overview of what is happening at each site. The fact sheets may also be provided at EM SSAB meetings to demonstrate to the public what has been accomplished and what is left to accomplish. If people find the fact sheets useful, ones for specific initiatives may be developed.

Ms. Leckband stated that she liked the fact sheets, but felt that they only told half of the story because they focused more on what has been accomplished than what cleanup remains. It is important to communicate how much work is left to the public and why their support is needed.

Ms. Hruska agreed with Ms. Leckband and commented on the Nevada fact sheet. She mentioned that Yucca Mountain is adjacent to the NNSS, and some members of the public believe that the two are the same site. She recommended using the word nuclear with caution. Ms. Hruska also suggested that acronyms be defined on the fact sheet with a legend. Ms. Hruska mentioned that in Nevada, transportation is a big issue, so a specific fact sheet on that topic would be helpful.

Mr. Hudson noted that one of the issues with information sheets is that they date themselves quickly and outdated information can be a liability. Ms. Trummell mentioned that the fact sheets have dates on them to show when they were last updated, and HQ will be looking at how frequently to update them. She emphasized that the fact sheets are being used to broadcast the positive news about the EM program.

Mr. Hemelright mentioned that he does local presentations in the community, and the public is amazed at the amount of cleanup work that the Oak Ridge Reservation is doing. At a previous EM SSAB Chairs meeting, the Chairs had discussed the importance of sharing the cleanup work that EM has completed. The media does not focus on the positive work, or the progress that is being made. Spreading this information may lead to more public awareness, which could result in additional funding.

Mr. Griffith mentioned that Mr. Whitney stated that DOE spent $144B over the last 25 years on cleanup work. Dividing this number out by how much was spent at each site would be an impressive number for the public to see.

Mr. Bohrer asked Ms. Trummell how she views the EM SSAB's role in in the public communications process. Ms. Trummell stated that she believes that the EM SSAB was created to provide advice on behalf of the public. The board members represent various interests, and it is important for each board to have a diversity of viewpoints, backgrounds and experiences.

Ms. Trummell added that the public meetings can be used to help educate the broader public, but that ultimately, educating the public is DOE's job. DOE does want the EM SSAB's input on how well DOE communicates to the public.

Mr. Bohrer added that he believes it is the Board's role to make observations on how well DOE is communicating, but that the EM SSAB needs to be careful to not take on the public communications role.

Mr. Peterson shared that the Paducah CAB feels confused about the roles involved in the communications process, because it varies from site to site. He asked for clarification regarding whether or not public input is wanted is up to the Site Managers.

Ms. Trummell clarified that HQ is generally deferential to Site Managers when it comes to where they want input, and trusts their judgement if they want to solicit advice on a particular subject. HQ reviews the local boards' work plans each year. The EM SSAB is part of one Advisory Board to the Assistant Secretary, so if the Assistant Secretary wants particular input, then HQ strives to make sure that is reflected in the work plans. The process is not a HQ-driven process,

but HQ is involved. The issues the boards focus on vary across the sites because Site Managers and site staff are the people who make the daily decisions.

Mr. Peterson noted that it is his job is to know the priorities of the community, and to provide that input to DOE, but he finds it difficult to do this if the site does not provide the board information on a particular item.

Ms. Trummell responded that there are different ways for public participation to work. The EM SSAB is not the only mechanism for members of the public to engage with DOE. If there is a broader interest beyond what the Site Manger is asking for input on, then there are other opportunities for those discussions.

Ms. Trummell added that DOE wants to avoid a situation in which the EM SSAB is providing input on items that DOE has no authority over. For example, many of the sites have multiple missions and some sites want to provide input on missions outside EM's scope.

Mr. Peterson added that being involved in small events and being aware of press releases before they are released is also important. The Paducah CAB feels that decisions negotiated by the Federal Facility Agreement, Paducah's CAB's Tri-Party Agreement, are made and presented to the board without any real opportunity for input. Mr. Petersons stated the he would like more definition of the role the board should play in communications.

Ms. Leckband noted that the HAB has been successful with this issue. The board has a Public Involvement Committee that works with DOE to provide input during the early stages on items that DOE is considering circulating to the public.

Ms. Leckband would give DOE a positive rating for its communications with the community and the EM SSAB; but, there are issues that the EM SSAB would like more information on and things DOE would benefit from with additional input. She believes there needs to be a positive and respectful working relationship that goes both ways.

Ms. Trummell discussed the EM SSAB Charter and its broad structure. The Charter allows for local boards to customize to their local site needs, while still meeting the Charter's requirements.

Mr. Borak added that each site needs its board for different things, so the boards give different advice. The twice yearly Chairs Meeting is a time for the Chairs to come together and discuss shared interests and best practices.

Ms. Trummell added that there is a balance between making things uniform and making sure things work at the local level. There are some lessons learned that can be taken from one local board and applied to another local board. HQ wants to find the right balance between making sure local boards are operating in a way that is useful to the local site and useful to the Assistant Secretary, without being too prescriptive over how things function.

Ms. Spinelli expressed concern over term limits. She feels that it takes some members four years to understand the technical issues that the SRS CAB deals with and then they only have two

years to make recommendations and feel like a productive member.

Mr. Borak noted that according to the EM SSAB Charter, the two-year term can be extended up to three times, for a total of six years. Exceptions are made, but the philosophy is that new people and new ideas should rotate onto the boards. Ms. Trummell added that the purpose of the EM SSAB is not to be a board of experts, but to get the broader public's input. HQ is open to ideas on how to help bring new members up to speed.

Mr. Henderson mentioned that people in his generation get their news through social media, such as Instagram and Twitter, and that EM currently does not have a presence on these forums. He believes that it would be helpful to create approved content on complex-wide issues that can be shared on these forums to create candid conversation and feedback.

Mr. Henderson also mentioned the importance of not underestimating the value of trusted human capital. He mentioned that between himself and Mr. Greg Simonton there is nearly 400 years of family history in Ohio, and that people in southern Ohio do not trust outsiders. When sites have this human capitol, it leads to candid dialogue.

Mr. Bohrer added that he would be hesitant to support additional guidance at the HQ level on how the boards should operate because all sites are different. He added that communication must go from the top level of EM to the local board and that DOE needs to be open and honest with the EM SSAB.

Ms. Cook asked whether the information from the fact sheets came directly from the sites because the closure of the K-25 building should be on the sheet. She added that she does like the fact sheet because it is snapshot of the site. She also recommended that the numbers on the fact sheets should be included relative to the work that is left.

Ms. Trummell mentioned that the fact sheets were worked on with the sites, and the information may have come from the site or been drafted at HQ; it may differ site to site.

Ms. Clayton, member of the Paducah CAB, agreed with Mr. Bohrer's comments and said that the Paducah CAB would like to receive more information and would like DOE to engage with the board more.

In terms of product development, Ms. Leckband suggested that the Communications Roundtable discussion be the product, and that no additional product was necessary, since information was exchanged between the boards and the DOE personnel who would most likely help develop any action items that came out of this discussion.

Ms. Trummell asked how frequently it would be helpful to have this type of dialogue. Mr. Hudson responded that there needs to be time for the conversation to mature and for the local boards to discuss the suggestions that were made. Ms. Cook noted that there are six months between the Chairs Meetings, and a lot can happen in that time period. Mr. Borak reiterated that there are Chairs Calls in between the meetings, and invited Ms. Trummell to participate in one of the calls.

Ms. Leckband invited Ms. Trummell to come to a HAB meeting, attending a meeting and seeing the types of information exchanged, and the recommendations and advice discussed is invaluable.

Public Comment

Mr. Sonny Goldston, Chair of the Energy Facility Contractors Group (EFCOG) Waste Management Working Group, employee for Energy Solutions and Co-Chair of the Communications Stakeholder Involvement Track at the Waste Management Conference, discussed next year's conference.

Mr. Goldston noted that he is working with Mr. Borak and others to arrange sessions for the 2016 conference. The EM SSAB provides stakeholder involvement for DOE EM, so there are at least one or more sessions that will involve the Board. All of the EM SSAB sites are discussed, and vendors that provide services to DOE are in attendance, so there is a lot of information discussed. The EM SSAB is encouraged to attend and present at the conference and communicate with attendees that work in technical and programmatic areas. Mr. Goldston noted that it is important for these attendees to understand stakeholder involvement. The attendees will learn from the EM SSAB members, and vice versa.

Mr. David Hoel, SRS CAB Member, commented that he wondered if the local boards make recommendations to DOE on the integrated project list level, or on a broader level like a project baseline summary. He noted that DOE values the feedback it receives from the EM SSAB, but added that some of the SRS CAB members are often frustrated that they are limited to giving feedback that aligns with the scope of EM. Mr. Hoyle said that DOE should enable the SRS CAB to provide recommendations about other programs that have a direct impact on SRS, such as the Savannah Radioactive Waste Program that resulted from Yucca Mountain, and also on nuclear proliferation within the National Nuclear Security Administration (NNSA). Mr. Hoyle recommends that DOE look at a more expansive approach for utilizing the EM SSAB with regards to advice on other programs.

Mr. Tom Clements, Director of Savannah River Site Watch, spoke about nonprofit groups. Savannah River Site Watch is a nonprofit organization that provides oversight for some programs at SRS. The organization is a member of the Alliance for Nuclear Accountability (ANA). Mr. Clements said that there is a wealth of knowledge in these nonprofit groups and encouraged the EM SSAB to further utilize these groups.

Other member organizations of the ANA include:

- The Oak Ridge Environmental Peace Alliance, which focuses on nuclear weapons
- Nuclear Watch New Mexico, which focuses on EM and NNSA programs
- Concerned Citizens for Nuclear Safety, which focuses on New Mexico
- Southwest Research Information Center, which focuses on WIPP
- Snake River Alliance in Idaho
- Hanford Challenge and Heart of American Northwest, which focus on the Hanford site.
- ANA groups near nuclear weapons sites such as Tri-Valley Cares around Livermore, and

Physicians for Social Responsibility near the NNSA Kansas City plant.

Mr. Clements urged the EM SSAB to draw on the knowledge of the members in these nonprofit organizations. He added that the role the local boards play is essential because the boards receive information from DOE. Mr. Clements added that the EM SSAB should work to get DOE to allow them to address a wider range of issues, because some issues may not be in each local board's work plan, but the boards should be able to comment and write recommendations on these issues. He thanked the EM SSAB members for their service.

Cross-Cutting Issues and Product Development: Discussion of Recommendations from the EM SSAB Chairs

The Chairs discussed a proposed recommendation regarding waste storage at WIPP drafted by the NNMCAB. Mr. Sayre merged the proposed recommendation with a previous proposed WIPP recommendation from the Fall 2014 Chairs Meeting in Idaho Falls, Idaho, entitled "Initiate Process of Permit Modification for Additional Surface Storage at WIPP." The newly revised recommendation was put forth for discussion.

The Chairs agreed that the intent of the recommendation is to ensure that DOE accelerate and make more transparent any activities in motion or planned that will resume disposal pathways and destinations for TRU waste. The Chairs stressed the importance of getting WIPP operational again as quickly as possible. The Chairs wanted to make sure there is an alternative interim storage plan in place in the event WIPP were to experience another unplanned shutdown in the future.

The Chairs discussed whether the revised recommendation was too complicated for the local boards to pass. Some of the Chairs agreed that the previous WIPP recommendation was not passed because the local boards needed more information.

Mr. Sayre explained that the NNMCAB did not pass the previous WIPP recommendation because it was too simple, and the board wanted more background. The board also had an issue with the identification of above-ground storage because in Carlsbad, New Mexico, where the WIPP facility is located, tornados are a concern.

Mr. Hudson mentioned that the original recommendation was concerning because funds used to identify alternative storage would take away from the subsequent reopening of WIPP. Mr. Hemelright mentioned that original intent of the recommendation was to investigate a permit modification, and the revised recommendation moved away from this intent.

After further edits were incorporated, the Board agreed that the issues with the previous WIPP recommendation were solved with the new recommendation, and the local boards would be more likely to understand and pass the revised recommendation. The Board agreed to discuss the recommendation further after Mr. Marcinowki's WIPP Recovery and Waste Disposition Update presentation, so that any further questions could be answered.

The Chairs then discussed a draft recommendation on Supplemental Environmental Projects put forth by the NNMCAB. The NNMCAB believes that LANL should be allowed to take on supplemental environmental projects in lieu of fines being levied against Los Alamos and WIPP by the NMED, for the WIPP shutdown.

The HAB and the ORSSAB both mentioned that their respective sites had similar issues. Hanford had a circumstance in which a supplemental environmental project was completed in lieu of the money for the fine being taken out of the site budget. Oak Ridge completes community service and extra cleanup in lieu of punitive monetary damages. Also, INL is currently under an order for fines to be levied for the delayed startup of the IWTU.

The Chairs agreed that it made more sense for the recommendation to be sent to DOE on behalf of the NNMCAB, and not necessarily the entire EM SSAB. The Board believed that at a future meeting a conversation or round table could be held on the topic. Mr. Sayre stated that he would take the recommendation to the NNMCAB and edit it to try and come up with a more generic recommendation for the Board to consider at the Fall 2015 meeting.

Day Two: Thursday, April 23, 2015

DOE HQ News and Views

Mr. Borak gave a brief overview of his recent detail assignment to the Department of Labor's Office of Workforce Investment through the Presidential Management Council Interagency Rotation Program.

At HQ, Dr. Monica Regalbuto has been re-nominated for EM Assistant Secretary and remains currently on staff at EM as the Associate Principal Deputy Assistant Secretary.

Mr. Borak mentioned the Waste Management 2016 Conference. Historically, the EM SSAB has participated in the conference, and he encouraged members to do so in the future. Members should talk to their sites and see if funding is available. Mr. Borak would like to find ways to increase attendance at the EM SSAB session. The conference is primarily attended by contractors, and Mr. Borak thought it would be beneficial to them to come to the public involvement session.

Waste Isolation Pilot Plant (WIPP) Recovery and Waste Disposition Update

Mr. Frank Marcinowski, Deputy Assistant Secretary for Waste Management, gave an update on WIPP recovery and waste disposition activities throughout the complex.

<u>WIPP Recovery</u>

Two events occurred in February 2014 at WIPP: 1) a salt truck fire on February 5, 2014; and 2) a radioactive release on February 14, 2014. EM has not disposed waste underground since the first event.

A number of investigations have been ongoing, including one by a Technical Assessment Team (TAT) that was specifically chartered to identify the cause of the RAD release from the drum. All those reports have been published and all investigative activities are now complete. The final report was released on April 14, 2015. It concluded that there was an incompatible mix of materials inside that drum that caused an exothermic reaction. Once the chemical reaction created enough heat, it ignited the kitty litter, causing the lid to dislodge and the radioactivity to be released.

DOE also established an Accident Investigation Board (AIB) to assess the WIPP safety systems programs and processes at the federal and contractor levels. The AIB Phase 2 Report deemed that the accident was preventable, just as the TAT did. The root cause was in the management systems that were used to oversee development of the procedures and implementation of those procedures at Los Alamos. The AIB Phase 2 Report found that there was insufficient review of the procedures that there were being used by the contractor to package this waste. For example, the organic absorbent should have been an inorganic absorbent. EM knows everything that it can about the event, and everything about what needs to be done at Los Alamos and the WIPP facility in order to resume operations again.

The salt haul truck is still where it was when it caught on fire underground. It does not interfere with any of the ongoing work or recovery efforts. It will take some time to move the truck above ground, but that is not a priority.

Mr. Marcinowski reviewed the next steps toward the resumption of operations at WIPP.

- The Nuclear Safety Documentation needed significant revisions. There were serious deficiencies both on the contractor side and the federal side at both WIPP and HQ. Corrective actions have been identified and those actions are being implemented.
- The Safety Management Program Revitalization is growing out of the nuclear safety documents. The Nuclear Safety Documentation is a major revision to the entire safety documentation for the WIPP facility.
- EM is making good progress in underground restoration and maintenance. Underground maintenance resumed in November 2014. The ventilation flow rate is so low that only a single piece of equipment can be operated at a time. Currently, a bolting apparatus is being used to put bolts in the ceiling of the facility. Over 1,000 bolts have been put in the ceiling.
- DOE has an order from the state to close down Panel 6 and Panel 7, Room 7. DOE has been going through the inventory to see if there are other drums with similar constituents as the particular drum that caused the event underground. Several have been identified. They are located at Los Alamos, the Waste Control Specialists facility in Texas, and the underground at the WIPP facility. 425 such containers were identified in Panels 6 and 7 in the underground. Those would be extremely difficult to retrieve, so the best approach is to close off those existing waste panels. DOE is anticipating that by mid-May Panel 6 will be closed, and by mid-June Panel 7 will be closed.
- DOE is taking steps to increase the ventilation flow rate in the underground in order to operate more equipment and expedite underground activities. One such step is interim ventilation. Since the event, all air flow in the underground is filtered by HEPA filters.

DOE is working to install additional HEPA filter units on the surface to allow an increased ventilation and flow rate.

- DOE is creating supplemental ventilation. There are large doors underground that control the flow path of the ventilation air. DOE is modifying the location of those doors and putting an additional fan in the underground to increase the flow rate.

These are the major steps that are being looked at, and DOE is still hoping to begin waste disposal in the first quarter of calendar year 2016. That was the goal when the Recovery Plan was issued in September 2014, and it is still the goal, so long as it can be done safely. Safety is the key priority.

There are three-to-four years of disposal capacity in the WIPP underground without any additional mining. That area will be utilized first. Until the ventilation is fixed, Mr. Marcinowski does not anticipate much active mining.

Phase 3 for ventilation will be two capital projects. The first is to sink a new exhaust shaft for the new ventilation system. There will be two ventilation systems underground until the workers are out of the contaminated area. One is a contaminated ventilation system and the intent is that with this new ventilation system, it would become an uncontaminated system. Once the waste is put in the contaminated area and sealed off, workers would be able to mine out new disposal panels with the new uncontaminated ventilation system. This will take a few years, so there is time to analyze various options. EM has asked for additional funding to design this system.

DOE is continuing to decontaminate the underground. The first level of decontamination is to use a four-wheeler with a water tank which sprays the contaminated area with water. The salt dissolves, and when the water dries and salt recrystallizes it, the contamination is contained within it. This process works well on lightly contaminated areas. For the more heavily contaminated areas a brattice cloth is added. This is a manufactured material that is put on top of the contaminated area with four to six inches of mine salt placed on top of the brattice cloth as an additional barrier for the contamination. So the more heavily contaminated areas are not being decontaminated; rather, the contamination is being fixed in place.

EM has taken special measures at WCS to make sure that waste located there for interim storage is in a safe configuration. The drums of concern at WCS were in standard waste boxes, which give an additional measure of safety. The standard waste boxes were then put into concrete culverts that are about 16 feet high. Pebble bed rock is put inside with a concrete lid placed on top of that. Those culverts are then removed into the low-level waste disposal facility and covered with sand. There is about two feet of sand on top. The sand is mostly there to help reduce the heat and control the temperature. Mr. Marcinowski believes that this configuration will help contain things, should there be an event with those drums. Similarly in Los Alamos, the drums that were identified have been separated and put in a temperature controlled dome with a fire suppression system. All identified containers are now in safe configuration and will remain that way until EM can figure out an appropriate way to deal with them.

Corrective actions are still being developed. Idaho, Oak Ridge, and Argonne are still actively packaging and treating waste and storing it onsite. Idaho has done a good job at identifying

additional storage capacity on site. Oak Ridge is continuing to process and has found an approach to continue storing on-site. The remote-handled (RH) waste was the greatest concern, but concrete containers have been procured to store the waste once it is repackaged. Oak Ridge will continue to do this until it is able to resume shipping the RH waste.

Even when WIPP operations start again, RH waste may be problematic. Some of the walls at WIPP do not have capacity for all the RH waste in those access drifts. EM will examine how best to handle RH waste once WIPP reopens. There is a concern, particularly at Idaho, with the settlement agreement milestones for 2018. EM is considering off-site storage capacity. WCS is a possibility, as well as additional storage capacity at WIPP.

EM has not considered the shipment sequence that will take place once WIPP reopens. There is some waste on the surface at WIPP that needs to be tended to first. The sequencing will likely depend on what regulatory agreements are in place and the on-site storage options available.

Discussion

Ms. Leckband asked whether the closure of Panels 6 and 7 would affect WIPP's receipt capacity. Mr. Marcinowski responded that Panel 6 is completely full right now, and that there is no more disposal capacity there. For Panel 7, the plan is to close just the affected room, so in Panel 7 there are still potentially six other rooms that DOE could use to dispose waste.

Mr. Sayre asked when the additional ventilation shaft would be completed. Mr. Marcinowski responded that, depending on the level of funding, the new system could be in place in FY 2016.

Mr. Bohrer clarified that it was a procedural compliance type of issue that caused the salt haul truck fire, and asked what DOE is doing for the overall integrated safety management.

Mr. Marcinowski responded that in terms of accountability, the contractor at Los Alamos and Carlsbad lost a significant portion of the fee that it would have received. There were also management changes in the contractor personnel at the Los Alamos and additional contractor staff was brought on at Carlsbad. There is an EM presence at Los Alamos now. Christine Gelles is the Acting Field Manager, and there will be a larger HQ role at Los Alamos.

The relationship between the EM contractors and the NNSA contractors at Los Alamos was not what it should have been and Mr. Marcinowski believes that is what led to the breakdown in procedures and implementation. He mentioned that the Secretary of Energy is determined to move the environmental operations at Los Alamos into the EM portfolio, so that NNSA can focus on its weapons mission and EM can focus on its cleanup mission.

Carlsbad is looking at ways to revise its role with the generator sites, and EM has done a review independent of the WIPP incidents. EM has sent a team to all of the generator sites to review their operations, procedures, implementation of those procedures, and the packaging of those procedures. The reviews determined that there was nothing of similar concern to what was found at Los Alamos.

Mr. Sayre stated that there were three tests that had been done on the breached drum before it was shipped, and asked whether EM was considering enlisting these additional test procedures before drums are shipped from their respective sites to Carlsbad. Mr. Marcinowski responded that they are looking at all aspects of it. One of the deficiencies was that the acceptable knowledge was insufficient, which is the fault of the generator sites and Carlsbad. If the substances had been identified as ignitable, they would have received the appropriate attention. That code was not applied until after the events, and Carlsbad is looking at revising its procedures for this. This came down to human error, and that needs to be eliminated as much as possible.

Mr. Peterson asked what happened to the money that was withheld from the contractor because of the incident at WIPP. Mr. Marcinowski responded that it went back into the operating budget at the WIPP facility.

Waste Disposition

Mr. Marcinowski concluded his remarks with a high level update on waste disposition activities across the complex. He also touched on the topics of Greater-than-Class-C Waste (GTCC), the status of DOE Order 435, Waste Disposition maps, and the Department's recent announcement to explore a separate repository for defense waste.

There have been encouraging conversations with the State of Texas and the NRC about the use of the WCS for Greater-than-Class-C Waste. If that was pursued, the first step would be to finalize the Environmental Impact Statement. The draft for the EIS has already gone out for public comment. Once that is finalized the NRC will move forward with it. That is a significant because right now there is no disposal outlet for that waste.

EM is working to finalize the revisions of DOE Order 435.

In response to an earlier EM SSAB Chairs recommendation, Mr. Marcinowski's office has used that data available through the Waste Information Management System (WIMS) to create a graphic of INL and the types of waste on site and their pathways for disposition. Mr. Marcinowski asked for the Chairs' feedback on this draft tool.

In March, President Obama authorized DOE to move forward with planning for a repository for defense-related high-level waste (HLW). The siting of the repository of this waste will be consent-based, so DOE will be soliciting interest from communities that are interested in hosting this repository.

Discussion

Ms. Clayton asked whether there was a disposition pathway for DUF-6. Mr. Marcinowski stated no, but that it is something they hope to move forward with this year.

Ms. Clayton then asked Mr. Marcinowski to comment on nickel. Mr. Marcinowski responded that the Portsmouth site has been doing bench-scale testing to determine how efficient certain

processes are at removing contamination from nickel. That work was recently completed and it was found that the processes are very efficient at removing contaminants from nickel. So, EM will scale up the bench to do some additional evaluation at Portsmouth. CVMR, a company from Canada, is planning to move its facility to Oak Ridge, and it has shown some interest in EM's nickel.

Ms. Leckband asked about the trials for deep boreholes in 2016. Mr. Marcinowski responded that this is not in the purview of EM, but run out of the Nuclear Energy Program. It is a viable alternative for certain type of waste, but it's not an option for all types of HLW and is still in its design phases at this point.
Ms. Leckband then asked whether there were any updates on the waste definition reclassification efforts. Mr. Marcinowski responded that there was nothing concrete at this point.

Ms. Spinelli asked whether they have been able to cut open the HEPA filters and see if anything had gotten caught in them. Mr. Marcinowski responded that they do have some that are actually packaged and have been sent off site for treatment and disposal. They will be disposed of as LLW because they do not contain enough transuranic waste to qualify them as TRU waste.

Safety Culture Presentation

Ms. Julie Goeckner, Senior Advisor for Nuclear Safety Culture, Office of Environmental Management, gave a brief overview of DOE's safety culture policies and initiatives. To provide perspective on DOE's efforts, the following definitions were provided:

- Safety Culture: An organization's values and behaviors modeled by its leaders and internalized by its members, which serve to make safe performance of work the overriding priority to protect the workers, the public and the environment.

- Organizational Culture: A set of common shared beliefs, expectations, and values that influence and guide thinking and behavior of organization members and are reflected in how work is carried out. Elements of culture talk about behaviors, and how people act in the day-to-day at their organization.

- Safety Conscious Work Environment (SCWE): An environment where employees feel free to raise a safety concern to management or a regulator without fear of retaliation. This is an environment that is created and fostered by management and supported by employees.

DOE recognizes that safety culture, organizational culture, and a SCWE are closely linked together, meaning they are separate but also interdependent. In order to establish an effective safety culture, there must be a positive organizational culture and a SCWE.

In 2009, the Deputy Secretary initiated DOE's strategic integration of safety culture into the system structures and processes. DOE's Elements of Culture building on DOE's existing Integrated Safety Management System (ISM). The ISM provided a foundation and enduring framework for safety culture at DOE. ISM is applicable to more than just nuclear facilities; it is

applicable to all DOE facilities and supports all of the various missions (by Departmental elements/programs).

DOE engaged with external organizations, such as NRC and EFCOG, and began to bring those best principles and practices to DOE. They were strategically put into the systems, structures and processes (e.g., ISM). In 2011, DOE issued the Nuclear Safety Policy, which also reinforced the expectation for a positive safety culture. This Policy also began to describe the behaviors for a positive safety culture such as: encouraging a questioning attitude and embracing a strong safety culture by having a safe performance of work, involving workers in all aspects of work performance, and practicing core values. DOE also issued the ISM Policy and the ISM Guide, which further reinforced the expectations.

The ISM Guide, Attachment 10, Safety Focus Areas and Associated Attributes, which was issued in September 2011, incorporates experiences from commercial nuclear industry and relevant lessons learned to focus attention on the right areas to create the desired ISM environment. It promotes a shift from compliance to excellence and emphasizes continuous improvement and long term performance consistent with the original intents of ISM. The document is important because it describes what a positive safety culture looks and feels like, and how to develop rapport and relationships. The document highlights three safety culture focus areas: leadership, employee engagement and organizational learning. The document discusses the attributes of leadership and the behaviors leadership needs to demonstrate to foster an open and collaborative work environment where: employees feel free to raise issues/concerns, can engage with leadership without fear of retribution, and leaders respond to issues in a transparent, traceable, and timely manner.

In 2012, DOE initiated a number of independent safety culture assessments, as well as SCWE self-assessments. There were 35 assessments conducted across the entire DOE complex (including NNSA, EM, and the DOE Office of Science (SC)). To provide consistency and support effective conduct of these self-assessments DOE issued guidance that incorporated best commercial nuclear industry experiences/practices. The conduct of SCWE self-assessment provided an opportunity to demonstrate the values of a learning organization. Lessons learned have been incorporated into additional guidance.

To provide additional foundation for DOE's safety culture expectations, DOE developed and deployed an 8 hour course SCWE for senior leaders. This was an important initiative as it took Attachment 10 from the DOE guide and taught it to DOE senior leaders (about 2,300 DOE and DOE contractor senior leaders were trained in 18 months). The highly interactive course includes case studies and focuses on the importance of and methods for establishing and maintaining an open and collaborative work environment within DOE and contractor organizations, and provides knowledge, tools and resources to assist senior leaders in creating an environment where employees feel free to raise concerns without fear of retribution.

In 2013, the Secretary of Energy issued a memorandum to all the heads of the DOE departmental elements, discussing his personal commitment to health and safety through leadership, employee engagement, and organizational learning. He talked about the importance of pursuing safety culture in an environment of trust, mutual respect, worker engagement and open communication,

as well as creating an environment that promotes a questioning attitude with effective resolution of reported problems and continuous learning. The Secretary's goal was to foster a positive safety culture and SCWE consistently, across all departmental operations.

In 2014, DOE issued a Consolidated Report of the SCWE Extent of Condition. The report evaluated 35 safety culture and SCWE self-assessments conducted across NNSA, SC and EM facilities. Three high-level recommendations were identified in the Consolidated Report: 1) establish a Safety Culture Improvement Panel (SCIP) at the HQ level; 2) incorporate safety culture and SCWE into everyday training; and 3) evaluate contractual language for a consistent approach in implementing safety culture and SCWE. DOE's SCIP charter has been drafted and it is in the Deputy Secretary's office awaiting her signature. The National Training Center has begun to take the safety culture elements in Attachment 10 and incorporate them into the existing training. Contract language to support the expectations for a positive safety culture has also been developed and implemented with various contracts, such as the Idaho Cleanup Project (ICP) contract.

In addition to these recommendations, all organizations were directed to develop safety culture sustainment plans. In the plans, each Federal and contractor organization was required to identify improvement tools for safety culture to help build a long-term performance plan. The last element of the Safety Culture Sustainment Plans was to link improvement actions to DOE's Consolidated Report Extent of Condition.

In 2014, DOE developed and delivered a pilot course for first-line supervisors similar to the senior leader course. Pilot sessions were held at Oak Ridge and Hanford, targeted toward the NNSA, EM, and SC organizations (Federal and contractor organizations). The course is currently under revision and once the Safety Culture Improvement Panel Charter is signed it will be determined how this class will be rolled out across DOE.

In addition to Departmental efforts, EM provided safety-culture assessment training in December 2014. It was tailored to the safety culture focus areas of leadership, employee engagement and organizational culture, incorporating best industry practices and provided a template to conduct safety culture and SCWE self-assessments in the future.

In his DNSFB Hearing last October, the Secretary said that DOE will start changing the contractual requirements to hold contactors accountable. An example of how DOE is doing this is the DOE ICP contract where the specific language states that the contractor "shall establish, maintain a strong safety culture as required in the DOE's Nuclear Safety Policy and Integrated Safety Management Policy."

Discussion

Ms. Leckband asked what organizational learning is. Ms. Goeckner responded that there are various elements of organizational learning; however, one of the most important is effective problem identification and resolution. Specifically to establish proactive systems, structures, and processes that enable early identification of issues, and for those issues to be resolved in a

traceable and transparent manner. The issues can then be trended by leadership and used to prevent recurrence of situations.

Ms. Leckband commented that she had worked on a site for 25 years, and that there have been past safety culture programs and the metrics were always determined exclusive of contractor personnel. They were developed by DOE, and contractors and those performing the work had to figure out how they could meet the metrics. No lost work days was one metric that was used, and that there is a backlash in using something like this because a first-line supervisor may determine that a worker is not really hurt because they do not want any lost workdays on their record.

Ms. Leckband asked whether the Safety Culture Sustainment Plan is publicly available. Ms. Goeckner responded that there is a separate safety culture sustainment plan for each Federal and contractor organization and contractor and that they will be publically available.

Mr. Bohrer asked what this system offers that the Integrated Safety Management omitted. Ms. Goeckner responded that DOE's effort builds upon the existing ISM; it does not replace ISM. Mr. Bohrer followed up by asking what failures were found in the ISM that determined that another level should be added. Ms. Goeckner responded that it was not failures in ISM, but it was an opportunity to continuously improve and build on best industry practices and lessons learned.

Mr. Bohrer disagreed with DOE's approach and asked why DOE did not modify the ISM to take these into account. He also mentioned that he did not hear anything from the Sustainment Plan that was not already included in the ISM. Ms. Goeckner responded that she appreciated his concern; DOE is using ISM as the foundation.

Ms. Cook commented that everything is tied to funding, and until there is a decoupling with money then she does not see things changing (implying safety culture should be incentivized). Ms. Goeckner responded that she incentivizing "not having an accident" may not be the best approach to safety culture; however, it may be appropriate to incentivize "promoting the right behaviors."

Mr. Sayre asked whether Ms. Goeckner's office reviews contracts to make certain language is in there to support the safety culture/SCWE efforts as what has been presented may be associated with cost measures the contractors have to consider. Ms. Goeckner responded that EM has begun to review contracts. She could not speak on behalf of NNSA or SC in this regard.

Closing remarks and adjournment

The next Chairs Meeting will be held on September 1-3, 2015 in Santa Fe, New Mexico.

Mr. Borak thanked the Chairs and EM SSAB staff for their participation in the meeting. The meeting was adjourned at 11:29 a.m. EDT.