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

PUBLIC MEETING MINUTES

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

October 2 - 3, 2012

LIST OF ACRONYMS

ARI – Asset Revitalization Initiative
ARRA – American Recovery and Reinvestment Act
CAB – Citizens Advisory Board
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CH-TRU – Contact-handled Transuranic Waste
CR – Continuing Resolution
D&D - Decontamination & Decommissioning
DDFO – Deputy Designated Federal Officer
DNFSB - Defense Nuclear Facilities Safety Board
DOE – Department of Energy
DWPF – Defense Waste Processing Facility
EIS – Environmental Impact Statement
EM – DOE Office of Environmental Management
EM SSAB – DOE Office of Environmental Management Site-Specific Advisory Board
EPA – U.S. Environmental Protection Agency
FY – Fiscal Year
GAO – U.S. General Accountability Office
GTCC – Greater-Than-Class C
HAB – Hanford Advisory Board
Hanford – (DOE) Hanford Site
HLW – High-Level Waste
INL – Idaho National Laboratory
INL CAB – Idaho National Laboratory Site EM Citizens Advisory Board
LANL – Los Alamos National Laboratory
LLW – Low-Level Waste
MLLW – Mixed Low-Level Waste
NNM CAB – Northern New Mexico Citizens' Advisory Board
NSSAB – Nevada Site-Specific Advisory Board
OMB – Office of Management and Budget
OR – (DOE) Oak Ridge Site
ORNL – Oak Ridge National Laboratory
ORSSAB – Oak Ridge Site-Specific Advisory Board
Paducah – (DOE) Paducah Site
Paducah CAB – Paducah Citizens Advisory Board
PORTS SSAB - Portsmouth Site-Specific Advisory Board
Portsmouth – (DOE) Portsmouth Site
RH-TRU – Remote-Handled Transuranic Waste
SC – DOE Office of Science
SNF – Spent Nuclear Fuel
SRS – (DOE) Savannah River Site
SRS CAB - Savannah River Site Citizens Advisory Board
SSAB – Site-Specific Advisory Board
SEIS - Supplemental Environmental Impact Statement
TRU – Transuranic Waste
U^{233} – Uranium-233
WIPP – Waste Isolation Pilot Plant
WTP – Waste Treatment Plant

PARTICIPANTS

Hanford Advisory Board: Susan Leckband, Chair; Steve Hudson, Vice Chair; Dana Bryson, Deputy Designated Federal Officer

Idaho National Laboratory Citizens Advisory Board: Willie Preacher, Chair; Nicki Karst, Vice Chair; Lori McNamara, Contractor Support Staff

Nevada Site Specific Advisory Board: Kathleen Bienenstein, Chair; Donna Hruska, Vice Chair; Barbara Ulmer, Contractor Support Staff

Northern New Mexico Citizens Advisory Board: Carlos Valdez, Chair; Manuel Pacheco, Vice Chair; Brenda Gallegos, Member; Edwin Worth, Deputy Designated Federal Officer; Menice Santistevan, Contractor Support Staff

Oak Ridge Site-Specific Advisory Board: David Martin, Chair; David Hemelright, Vice Chair; Gregory Paulus, Member; David Adler, Alternate Deputy Designated Federal Officer; Spencer Gross, Oak Ridge Contractor Support Staff

Paducah Citizens Advisory Board: Ralph Young, Chair; Judith Clayton, Member; Robert Smith, Deputy Designated Federal Officer; Eric Roberts, Contractor Support Staff

Portsmouth Site-Specific Advisory Board: Will Henderson, Chair; Val Francis, Vice Chair; Shirley Bandy, Member; Richard Snyder, Member; Greg Simonton, Alternate Deputy Designated Federal Officer; Julie Galloway, Contractor Support Staff

Savannah River Site Citizens Advisory Board: Donald Bridges, Chair; Harold Simon, Vice Chair; Jim Giusti, Savannah River Public Affairs

DOE Headquarters:
David Huizenga, Senior Advisor for Environmental Management
Terry Tyborowski, Deputy Assistant Secretary for Program Planning & Budget
Steve Trischman, Deputy Director, Office of Strategic Planning
Christine Gelles, Associate Deputy Assistant Secretary for Waste Management
Catherine Alexander, EM SSAB Designated Federal Officer
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MEETING MINUTES

The Environmental Management Site-Specific Advisory Board (EM SSAB) Chairs met on October 2-3, 2012, at the Department of Energy (DOE) Headquarters (HQ) in Washington, D.C. Attendees included EM SSAB officers and members, DOE HQ staff, EM SSAB Deputy Designated Federal Officers (DDFOs), Federal Coordinators, and contractor support staff. The meeting was open to the public and conducted in accordance with the requirements of the Federal Advisory Committee Act.

Welcome and Opening Remarks

The Designated Federal Officer for the EM SSAB, Catherine Alexander, called the Chairs' Meeting to order at 8:00 a.m. EDT. EM SSAB representatives were then introduced. Meeting Facilitator, Eric Roberts, reviewed the agenda and logistical details.

Presentation: EM Program Update

EM Senior Advisor David Huizenga congratulated EM sites on their accomplishments over the past year. Among those that he noted was the closure of Tanks 18 and 19 at the Savannah River Site (SRS), the completion of cleanup in the F Reactor Area at the Hanford site, and progress toward completion of cleanup of more reactor areas. EM is also making progress in waste removal from the mesa at Los Alamos National Laboratory (LANL), and the Nevada National Security Site (NNSS) has drilled three groundwater characterization wells, closed 11 corrective-action sites, and continues work at its disposal facility.

Mr. Huizenga also noted that DOE Secretary Dr. Steven Chu has assembled a team of experts to assess Hanford's Waste Treatment Plant (WTP). The review involves the plant's capability, as designed, to detect equipment failure and to repair failed equipment inside the WTP's black cells. Black cells are the enclosed concrete rooms within the WTP Pretreatment facility that contain tanks and piping.

Secretary Chu has asked EM to apply lessons learned from activities related to the demolition of the K-25 gaseous diffusion facility at Oak Ridge National Laboratory (ORNL) to ongoing and planned activities at the Portsmouth and Paducah gaseous diffusion plants to ensure smooth operations at those sites.

The Secretary also has asked EM to look at strategies for the transfer of waste at the gaseous diffusion plant (GDP) the Paducah site from USEC to DOE. In early 2012, DOE enabled a uranium transaction that provided for USEC's continued operations at the GDP, delaying return of the facility to the agency. (The current focus is on placing radioactive material currently in thin-walled cylinders into thick-walled cylinders.) In addition, Secretary Chu has asked EM to apply lessons learned from activities related to the demolition of the K-25 gaseous diffusion facility at Oak Ridge National Laboratory (ORNL) to ongoing and planned activities at the Portsmouth and Paducah gaseous diffusion plants to ensure smooth operations at those sites.

Mr. Huizenga announced that EM has achieved 74 percent of its footprint reduction target with American Recovery and Reinvestment Act (ARRA) funding. The initial goal was 70 percent; the EM footprint has been reduced from 931 square miles to 243.

EM will be funded under a Continuing Resolution (CR) for the next six months. As a result, some sites will be held at FY 2012 budget levels during that period, but EM has requested $100M in additional funds for cleanup activities at other sites in FY 2013. Though EM's mission has bipartisan support, Mr. Huizenga expects that EM will not receive these additional requested funds, and EM has notified the Office of Management and Budget (OMB) that challenges may occur at sites without an adequate budget. He also met with the OMB's administrative officials to secure all possible funds and avoid potential layoffs. EM may also need to hold back 5 percent of its FY 2013 funds in preparation for the proposed budget sequestration initiative. Unless budget concerns are resolved, sequestration will occur in January 2013, prompting a 10 percent budget cut across federal agencies.

Mr. Huizenga was not able to discuss the details of the FY 2014 budget request, but EM is formulating it for submission to Congress in February 2013.

EM is tracking historical preservation and revitalization efforts at Hanford and Oak Ridge. Recognition for the Manhattan Project under the National Historic Preservation Act is not secured at this time, but Mr. Huizenga is hopeful that it will occur by the Chairs' next meeting. However, EM has agreed to construct a replica of the Oak Ridge K-25 facility's Equipment Building and move relevant equipment into the new building for public viewing.

Discussion

Mr. Huizenga expects that Congress will resolve budgetary concerns soon. If it does not, the across-the-board sequestration level of 10 percent required by current law will go into effect in January 2013. In preparation, EM is holding back 5 percent of its current budget under the existing Continuing Resolution as an internal control measure to appropriately position the agency should the sequestration take effect. Sites struggling with layoffs and other issues can petition to get all or part of the 5 percent hold back released.

Mr. Huizenga noted that EM continues to perform first-of-their-kind, complicated activities that sometimes face delays. Funding cuts also may create delays, but Mr. Huizenga does not see support for funding becoming weaker. EM's budget was cut in FY 2011 and FY 2012, but discussions with appropriators and congressional staff members lead Mr. Huizenga to believe that funding will stabilize in the long term.

Dr. Bridges addressed pending decisions with regard to surplus plutonium disposition (SPD) and the timing of those decisions. The National Nuclear Security Administration, in a Notice of Intent released for public comment in the summer of 2012, announced that the preferred alternative for surplus plutonium was conversion to mixed-oxide (MOX) fuel, with any non-pit plutonium that is not suitable for MOX fuel fabrication to be disposed at WIPP.

Several options were identified for pit disassembly and conversion, including the Savannah River Site's MOX facility, whose operations have been delayed until 2016. Mr. Huizenga noted that the combination of facilities to be used to convert the plutonium to oxide has not been finalized.

Presentations: Chairs Round Robin: Chairs' Round Robin

The Chairs shared current issues facing their sites, board accomplishments, and activities.

Savannah River Site Citizens Advisory Board (SRS CAB) – Donald Bridges

Salt waste processing at SRS is facing schedule and funding issues. Dr. Bridges is concerned about the possibility of DOE withholding funding in the event sequestration is implemented, but was pleased with the recent closure of tanks at SRS. Mr. Huizenga responded that EM is seeking to move things from construction to operation and is working with Congress to reprogram the 2013 budget for continued construction. EM is entering negotiations with the construction contractor and expects that a construction timeline will be available to the public this year.

Dr. Bridges expressed concern that although $450M is being spent on H-Canyon, the facility is underutilized. Mr. Huizenga recognized that processing was occurring with one dissolver, though three dissolvers could be put to use. Facility optimization has been discussed with OMB and HQ.

Canisters of high-level waste (HLW) at SRS are ready to be shipped off site, but have no final disposition path given the closure of Yucca Mountain. Dr. Bridges suggested a trial shipment program to the Waste Isolation Pilot Plant (WIPP) could provide valuable information on the suitability of the WIPP site for storage of higher level waste. He also recommended separating defense waste from commercial waste in order to expedite the disposition of defense waste. Mr. Huizenga recognized that the waste needs to be moved out of South Carolina and that WIPP may have potential for containing higher level waste in the long term. He said testing is being conducted on the use of salt beds for storing additional kinds of radioactive waste.

The SRS Building 235-F currently has residue of plutonium-238 in cells, Dr. Bridges said. Mr. Huizenga noted that EM will address this building in FY 2013. Combustible material was cleaned out in the last year and the building is being made as safe as possible.

Dr. Bridges highlighted SRS' impact on the Surplus Plutonium (Pu) EIS and said the local community is split on the issue. Processing surplus Pu and moving it out of SRS is one option. Dr. Bridges said that Tom Clements of the Alliance for Nuclear Accountability and Friends of the Earth could share the opposition's point of view.

Dr. Bridges concluded by saying the SRS CAB will continue its outreach efforts and its involvement in Environmental Justice activities and events.

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

Recently, wells around OR started showing small traces of groundwater contamination that could potentially be attributed to the site. Though the levels were below any state or Environmental Protection Agency (EPA) standards, they still raised concern. Citizens were asked to stop using wells and were put on city water at no cost to them. Contaminants have not been detected since well use has ceased. While the amounts detected were small, the ORSSAB was proactive in keeping the public informed. Dr. Dan Goode of the U.S. Geological Survey was contacted as an unbiased source of expertise to bring credibility to the board's messaging. Dr. Goode has been very helpful and there is potential for him to become a consultant to the ORSSAB.

The site budget remains a challenge, and spending cuts will result in lost jobs. The board expressed a desire to be involved in the early stages of budget discussions. Mr. Huizenga stated that EM's Terry Tyborowski, Deputy Assistant Secretary for Program Planning and Budget, will ask for the Board's input in budget planning. A web-based strategic planning tool is currently being developed to help stakeholders understand the local impacts of funding decisions across the complex.

Nevada Site-Specific Advisory Board (NSSAB) – Kathleen Bienenstein

The NNSS is important for DOE's entire waste disposal system. Approximately 95 percent of all waste at NNSS comes from other locations. It is the largest site and has the largest physical volume of contamination, yet receives the least amount of funding. Ms. Bienenstein recommended that DOE be equitable in allocating remediation dollars.

Mr. Huizenga said that EM looks at the entire complex as a system and seeks to make decisions as fairly as possible while ensuring the risk is addressed appropriately. He asked Ms. Bienenstein for more feedback from the Nevada SSAB and said he appreciates the work of the board. Ms. Hruska responded that additional funds would allow NNSS to pursue groundwater contamination issues. The geology at the site is not well understood, and surrounding communities are apprehensive given the site's proximity to their water source. Some people believe that underground fissures are capable of allowing contaminated water to migrate off site.

Northern New Mexico Citizens' Advisory Board (NNMCAB) – Carlos Valdez

The Cerro Grande fire in 2000 destroyed homes, as well as some facilities at LANL. In 2011, the Las Conchas fire came within 3.5 miles of LANL, where contaminated waste is stored. That fire drew attention from the media, citizens, and the Governor of New Mexico. Air-monitoring efforts were stepped-up and the potential for radiation release due to fire became an important concern. The LANL team communicated the protective measures and precautions taken, in order to protect the community.

The NNMCAB has discussed with DOE its desire to accelerate and complete the removal of the remaining onsite transuranic (TRU) waste. The board submitted three recommendations to EM in 2011; one sought funds to collect, characterize, repack, load and ship waste to WIPP on an accelerated schedule. Another recommendation proposed increasing TRU shipments to WIPP, in light of unexplained curtailments in shipping from OR. The third recommendation proposed moving materials off site as quickly as possible in light of threats of wildfire.

The LANL team, EM, and representatives of the New Mexico Environment Department met in 2011 to establish the 3706 TRU Waste Campaign agreement to address health and safety issues. It calls for the removal of 3,706 cubic meters of above-ground TRU waste and shipment to WIPP by 2014. As of late 2011, there were around 10,000 barrels of above ground waste and 11,000 below ground. The deadlines within the Consent Order have been reprioritized in order to support shipment of the waste on schedule and within current funding levels.

At the end of FY 2012, 915 cubic meters of TRU waste were moved. In FY 2012, 230 shipments were completed, continuing a four-year run of record shipment levels. The 10,000th shipment to WIPP was marked by a visit by the Governor and a celebration at the site. Not only is LANL ahead in its shipment schedule, but it also reduced the amount of "at-risk" material on site by 32 percent. Sufficient funding will enable continued shipment and success.

LANL is managing the "Crazy Straw" Project, which monitors and calculates the spread of a chromium (Cr) plume that was first detected in 2005. It is believed that the plume originated before 1972, related to cooling towers from a power plant previously on the site. There is also evidence of a percolate plume in the same area. A total of 72,000 kilograms of Cr may have been released into the environment. There are 18 monitoring wells used for the daily study of the Cr plume.

Mr. Huizenga said that EM will continue to work with Los Alamos on this issue. Mr. Pacheco recognized that groundwater is a priority at many sites, with different site-specific issues.

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

The PORTS SSAB recently issued a recommendation in support of an onsite waste disposition cell within certain parameters. A location has been selected and there have been numerous tests and sample drilling.

Mr. Henderson reported that other major issues for the board include the integration of recycling and development within the EM mission.

Mr. Huizenga responded that EM is supportive of recycling, in general, and recognizes progress at Portsmouth and its efforts to work with the community. He explained that he realizes that recycling must be done in a way that does not cause undue concern. Many citizens are unaware that technologies exist for cleaning-up contaminated material and that there is non-contaminated material at sites, such as nickel, aluminum, copper and steel. People need to be assured that radioactive materials are not being sent into the community-at-large. For example, at OR, people feared that recycling would result in the use of radioactive material in kids' braces and in other items. OR worked with labor unions and others to educate citizens and show them some materials can be cleaned-up for unrestricted use.

Mr. Francis encouraged a discussion of recycling and how it can reduce the footprint of onsite disposal cells. Portsmouth wants to be at the forefront of how recycling is handled and to serve

as a think-tank for the issue. The EM site is an important part of this community and is situated in the poorest county in Ohio.

Paducah Citizens Advisory Board (Paducah CAB) – Ralph Young, Judith Clayton

Ms. Clayton echoed Portsmouth's comments on recycling and questioned why materials from nuclear submarines and containers that end up underground cannot be reused. Mr. Huizenga believes that there is a good reason for reuse in the nuclear community, especially if safety for public use can be demonstrated.

Ms. Clayton also said that Paducah is the only manufacturing option and domestic source for enriched uranium. This should be considered as DOE looks to shut down the Paducah gaseous diffusion plant. Mr. Young noted that the community realizes that the site will not process uranium forever and is now engaging industry for adaptive site reuse. The site is being inventoried to determine reuse options and to attract private sector development. Subcommittees in the CAB are focused on adaptive reuse, as well. Comparatively, Paducah is lagging behind Portsmouth on disposal operations. The site understands that the location for a cell at the site needs to be considered in order to market the site for reuse.

Hanford Advisory Board (HAB) – Susan Leckband, Steve Hudson

Ms. Leckband recognized other boards' concerns about groundwater contamination and noted that the protection of the Columbia River is part of Hanford's mission.

She also asked that the EM SSAB and EM consider the time and funding spent by not running fuel rods through Purex when contemplating the reuse of H-Canyon.

Ms. Leckband reported that the HAB recently passed a number of pieces of advice to DOE; details are available on the HAB webpage at http://www.hanford.gov/?page=453. The HAB continues to work on public outreach and engages both regulators and the DOE. The board is also identifying priorities for the Hanford site.

One issue at Hanford is the virtrification facility and the future beyond the facility lifecycle. Nuclear waste was unexpectedly discovered between the inner and outer shells of at least one tank that was expected to last through 2050. The source of the leak is unknown and has created concerns for potential groundwater contamination and impacts to project cost and schedule. DOE has openly communicated with the site and is working on these issues. All 53 million gallons of waste has to be moved into a safer configuration.

Dr. Bridges asked if site layoffs are related to the vitrification plant. Ms. Leckband believes that it may be a skills mix issue. Mr. Huizenga added that slow construction of such a large facility has led to the transfer of some workers within the site. Some will return when construction ramps up again. The current focus is on solving technical problems. Cleanup work along the River Corridor and work on the Central Plateau are covered by both offices at the site.

Idaho National Laboratory Site EM Citizens Advisory Board (INL CAB) – Willie Preacher

The INL CAB is looking into a path forward for a repository site to handle SNF and HLW in multiple forms. Mr. Preacher also shared concern about the site budget and DOE's ability to fulfill its settlement agreement with the State of Idaho.

The CAB is concerned about the Integrated Waste Treatment Unit (IWTU). The planned start-up date of December 15 has been pushed back due to the clogging of filters. Because testing has not occurred, there may also be additional problems.

Mr. Preacher stated that the CAB is operating with a full and diverse membership.

Mr. Huizenga discussed progress on the IWTU. EM did not foresee the filter binding as a potential issue, but has completed a rigorous review of the safety issues and is convinced that a start-up in Spring 2013 is still attainable. He also noted that the Blue Ribbon Commission (BRC) issued its report and that EM takes seriously all issues listed in the report, including the need for a permanent waste repository.

Discussion

Mr. Hudson explained that the AY-102 tank at Hanford was part of a waste feed tank configuration that went into the vitrification plant. The investigation is ongoing, but EM currently believes that either something went over the top of the tanks in the chemical or transfer process, or that a transfer pipe leaked. Some waste leaked out of the well and the pH in this area is still in excess of 14.

Ms. Clayton proposed that until recycling technology is available, the metal be smelted and set aside. The contamination is volumetrically contained and is not a hazard. Mr. Huizenga added that EM is examining this method for nickel recycling.

Board Business

Mr. Huizenga recognized a number of Chairs who will complete their leadership terms before the next full EM SSAB meeting. The outgoing Chairs who were recognized included Susan Leckband (HAB), Dick Snyder (PORTS SSAB), and Margaret Owen (ORSSAB).

Presentation: Budget Update

Terry Tyborowski, Deputy Assistant Secretary for the Office of Program Planning and Budget, gave an update on the FY 2013 budget request. Her presentation is available at: http://www.em.doe.gov/PDFS/Tyborowski%20Chairs%20Oct%202%202012_OMB%20rev%209-28-12%20pm.pdf.

DOE's total requested budget for FY 2013 is $27.155B. Weapons activities take the largest share of the budget, followed by EM. The FY 2013 request for EM is $5.65B, and the majority of that funding will go to its tank waste programs and activities. From 2008 through 2010, EM's approved funding allocation was higher than its requested budget. However, starting in 2011, appropriations started to decline in comparison with EM's requests, necessitating adjustments to

the EM's planned work schedules. EM's FY2014 request will reflect a push for improved funding allocation.

Congress's proposed FY 2013 appropriation for EM was $5.58B and $5.73B in the House and Senate, respectively. EM is currently operating under a CR, based on last year's numbers, when EM's appropriation was $5.75B. According to the CR, the appropriated level for EM for FY 2013 is about $2.8B for six months. However, the allotment cannot be spent right away. About 48 percent of the funds can be obligated at this time.
With regard to the controversial "fiscal cliff", Ms. Tyborowski quoted a *New York Times* article ("Leaders at Work to Avert Mandatory Cuts," October 2, 2012) in which Executive Branch sources were quoted as saying the Administration believes sequestration will be avoided. Per the article, U.S. Senators are working out a deficit-reduction agreement and a new plan will be proposed when Congress reconvenes.

Ms. Tyborowski addressed EM's compliance posture, explaining that agreements are unique for each site and must be cohesive. Given that about $200B worth of work remains across the complex, EM must examine how to best position itself to meet its obligations should there be further budget cuts. EM must submit budget requests that are compliant to help keep focus on milestones. Communication about EM not meeting milestones is ongoing, and it is recognized that some factors are beyond the program's control.

EM has examined various funding scenarios for each site, recognizing the increased costs associated with schedule delays, and the need to reconcile cleanup plans with declining budgets and negatively impacted performance levels. Strategies to combat these impacts include efforts to optimize resources, improve contract performance, and develop of cost-saving technologies. The budget for technology, specifically, has been small. However, investing in technology could help EM achieve greater out-year savings.

Discussion

Ms. Leckband noted that there is a presumption that the agency won't have to operate under a CR, but rather than Congress will pass a new spending bill. She asked about the need for sites to not spend sequestration funds until that is resolved. Ms. Tyborowski clarified that there is no directive as to whether or not sites can spend the funds but suggested that sites manage their funds prudently.

Ms. Tyborowski said that funding under the current CR is subject to the Budget Control Act, which prevents shifting funds among projects without actual budget reprogramming. The challenge now is that there are not a lot of funds to move about if cash availability is only at 48 percent. Reprogramming may take several months and needs a high level of approval. The current CR is more constraining than what EM has been subject to in the past, making it difficult to move funds between sites and even within a site.

Mr. Martin asked if EM will have to take a percentage cut in budget if DOE takes a cut. Ms. Tyborowski stated that certain programs do not have control points and funds are more fungible in those situations. Other programs have been exempted from the sequestration impacts. She

has communicated to Congress impacts of strict controls that prevent shifting funds, where necessary to meet milestones.

For the second half of 2013, EM's budget of $5.6B is well within Budget Control Act targets. Ms. Tyborowski is optimistic that there will be an omnibus spending bill that includes energy and water. Congress may settle their differences before sequestration takes effect or opt for a full-year CR, in which case, EM's budget will remain around $5.6B.

Ms. Hruska asked about DOE's consideration of public-private partnerships on a site-wide basis, in order to generate funds through activities, such as recycling. Ms. Tyborowski noted that there is always talk about nickel recycling particularly at gaseous diffusion plants.

Any support in funding technology development would be helpful to EM. For instance, OR is working on a solvent that can improve salt waste processing; a small investment for several years to further develop that technology could have meaningful impacts.

Ms. Tyborowski added that the passage of appropriation bills early in the Fiscal Year has become increasingly uncommon. In 2001, there were 20 CRs for a total of 79 days. In 2011, there were five for a total of 171 days.

EM's FY 2014 budget request was sent to OMB in August 2012 and should wrap-up by the end of December.

Presentation: Impacts of Fiscal Constraints and Performance on Program Priorities and Commitments

Steve Trischman, Deputy Director for the Office of Strategic Planning and Analysis, stated EM's current strategic planning efforts are based on an expected annual budget in the range of $5B to $6B. Strategic planning efforts help EM avoid costly delays by preparing for various budget scenarios with the help of the sites.

The gap between EM's projected costs and the current target cost is approximately $14-$29B between now and 2024, depending on project performance. EM is concerned about the availability of funds needed to meet compliance deadlines.

EM is planning for two possible scenarios. The first assumes an annual budget of $5.6B in the near-term and upward of around $8B to $9B by 2040. This estimate is built on the assumption that an incremental increase will keep pace with inflation. The second scenario Mr. Trischman reviewed assumes a flat budget, which is in line with OMB's estimates, and would potentially increase lifecycles costs to between $300B and $335B through 2060.

Cost estimates over time account for the closure of some sites and the potential delays for other projects. Funding constraints and delays will ultimately increase EM's overall maintenance costs and extend project expenditures for 10 to 20 years longer than planned.

The costs associated with maintaining disposal sites while waste is prepared to be shipped affects future cleanup and waste disposition schedules. The influx of ARRA funds helped avoid additional maintenance costs, but base funding will have to take over starting in FY 2013.

D&D and soil and groundwater remediation may become a lower funding priority in the future. Mr. Young pointed out that D&D funds are used regularly and asked what will happen if Paducah's turn for cleanup comes and there are no D&D funds left to fund the cleanup. Mr. Trischman stated that EM will continue to seek authorization of those funds.

EM has a number of competing commitments associated with work at the sites, which will require innovative solutions in order to minimize lifecycle costs and schedule delays. For example, EM has used a barter arrangement with the Portsmouth D&D contractor, exchanging uranium to offset the cost of cleanup work. EM is also reexamining and identifying priorities at the site to determine the best way to leverage funding.

Discussion

Ms. Leckband stated that she wanted to share Mr. Trischman's presentation at the HAB meeting on November 1, noting that all sites want the best cleanup possible, but also have to look at things realistically and understand the bigger picture.

Discussion: EM SSAB Chairs Meeting Schedule

The proposed dates for the Spring 2013 EM SSAB Chairs meeting at Hanford are April 23 for the tour and April 24-25 for the meeting. Volunteers for the planning committee include Susan Leckband, Steve Hudson, Donna Hruska, Will Henderson, and Greg Paulus.

The upcoming EM SSAB meetings include Fall 2013 at Portsmouth, Spring 2014 at SRS, and Fall 2014 at Idaho.

The EM SSAB will conduct a bimonthly Chairs' teleconference on December 18, 2012. During this call, participants will discuss the electronic estimating tool previewed by Steve Trischman.

Presentation: Waste Disposition Update

Christine Gelles, Associate Deputy Assistant Secretary for Waste Management (EM-30), provided a waste disposition update. Her presentation covered a number of waste stream highlights, information regarding transportation and the Greater-than-Class-C (GTCC) low-level waste (LLW) EIS, and updates on the Blue Ribbon Commission (BRC) report and Nuclear Regulatory Commission's (NRC) LLW regulatory initiatives.

Given the current budget outlook, EM must ensure that safe, reliable and cost-effective disposition paths exist. The program's re-organization and the detailed FY 2013 execution plans provide the tools needed to highlight waste management challenges and solutions.

In FY 2012, disposal volumes were markedly lower than previous years and were less than forecast throughout the year. The overall decline in waste volumes reflects the current status and plans of EM's baselines, as well as fiscal challenges. For example, NNSS disposed of less than 1 million cubic feet of waste, although the original forecast was for 1.2 million. This does not necessarily suggest that there is less funding available to be handled, but rather that there may be more efficient onsite disposal available or there is less funding available to ship waste offsite.

SRS's disposal forecasts, for instance, changed due to greater packaging efficiencies, as well as improvements in generating TRU waste and packaging. The forecast assumes that no depleted uranium conversion product will be shipped to Nevada before FY 2015. EM does not want to overestimate shipments to Nevada, due to possible changes in activities in out-years, and changes at each site could impact the shipments.

Commercial waste-disposal options changed significantly in FY 2012. The Waste Control Specialists (WCS) facility in Texas began accepting nonfederal LLW waste in September 2012. WCS also completed construction of its Federal Waste Disposal Facility, and TX regulators approved its operations on September 18, 2012. EM is also undertaking a competitive acquisition process for disposal, contract vehicles. Use of the WCS facilities in Texas would help to ease some of the burden on NNSS.

Mr. Snyder commented that Portsmouth does not have the desire to accept other sites' waste. Ms. Gelles noted that Portsmouth is not considered a waste recipient site in contrast to the Nevada site, which was selected as a regional disposal facility through the NEPA process. EM published the first Waste Incidental to Reprocessing (WIR) Determinations for specific component pursuant to DOE Order 435.1 and few comments were received. Ms. Leckband said that some changes to the Order, such as the reclassification of waste, will affect cleanup decisions. Ms. Gelles noted that 435.1 is an update and not a complete revision. She also said that Order section 435.1enables EM to classify some equipment and wastes used or produced in HLW treatment programs as LLW or transuranic waste-based on its actual characteristics, not its origins. Disposal of these WIR items may be controversial when sites are selected, but the public comments received on the WIR Determination were about waste classification and, in some cases, reclassifying materials previously considered to be HLW. DOE has a technically defensible position on waste classification and a transparent way of communicating its decision-making process.

The revision of DOE Order 435.1 on Radioactive Waste Management is nearing completion. It is being considered by a senior level contractor group that will provide insight to the revision and be responsible for implementing the revised order. Ms. Gelles told the EM SSAB that EM can support any needed conference calls on this topic. The updates to the Order were delayed due to staff attrition and then by the rehire of senior DOE employees who supported the revisions.

The U^{233} Disposition Project team will earn a DOE Secretary Honor Award due to breakthroughs in last the last 18 months. EM is working with Nevada on the direct disposal of 403 Consolidated Edison Uranium Solidification Project (CEUSP) containers, without having to remove and process CEUSP materials; this will avert the need for additional processing. The new strategy should save nearly $600M in U^{233} disposition costs.

Ms. Gelles reported that the National TRU Corporate Board was meeting and that EM is working to implement the National TRU Waste Management Plan, which will help WIPP operations become more customer-oriented. Ms. Gelles added that the Nuclear Waste Partnership took over site operations at WIPP on October 1, 2012, and is being asked to bring greater efficiency to the program.

In FY 2012, 5,000 cubic meters of waste were shipped to WIPP, and EM's cross-complex goal to move 6,000 cubic meters of TRU overall was surpassed. TRU shipping priorities in FY 2012 include a commitment at LANL to move 800 cubic meters of waste to WIPP, some of which was ultimately characterized as MLLW. This goal was surpassed.

FY 2013 will be challenging; 1,800 cubic meters of waste need to be moved from LANL. Most of it will go to WIPP, but about 10 percent will go to Nevada. TRU waste is being moved out of Idaho, meeting a settlement agreement. Cleanup at Idaho continues and material is being stored on the Central Plateau until WIPP can take the waste. Hanford's TRU will be shipped to WIPP, beginning in 2015 or later, and will be optimized, based on lessons learned at other sites.

Removal of SRS's legacy TRU waste will take all of FY 2013. However, it is not clear if the necessary delivery efforts to WIPP can be maintained if EM's budget is reduced. At OR, waste is being segregated, so that when central characterization reoccurs, the inventory can be shipped efficiently.

Dr. Bridges asked if WIPP can handle any waste that becomes TRU, including plutonium and GTCC waste. Ms. Gelles confirmed that WIPP is being evaluated to handle GTCC LLW disposal. EM has received letters of support for disposition of GTCC waste from the New Mexico Director of Environmental Quality and the Governor.

The GTCC EIS includes an examination of current LLW regulations, WIPP's capabilities, and intermediate depth bore holes at various locations, as well as, above ground and engineered near surface facilities. Based on the draft EIS results, near surface facilities at Nevada and in the vicinity of WIPP would perform well for disposal of GTCC LLW.

Following completion of the EIS, the Nuclear Regulatory Commission will need to develop a rulemaking for licensing of a GTCC disposal facility. The GTCC EIS will go to Congress with alternatives identified and a request for Congressional action. Currently, WIPP is prohibited by law from accepting GTCC; therefore, a change in law would be needed before WIPP could be used for GTCC disposal purposes.

The GTCC waste inventory consists of a relatively small lifecycle volume of approximately 12,000 cubic meters. However, 98 percent of the radioactivity of this waste is contained in just a portion of the inventory – the activated metals from commercial reactors, which will not be generated for three decades. Although classified as LLW, it will require new handling approaches.

Regarding tank waste, EM-30 is responsible for ensuring EM wastes meet HLW disposal requirements and ensuring that HLW can be handled and transported safely. EM also is focused on treating Idaho's sodium-bearing waste (SBW) and managing construction issues at Hanford and SRS. Delays and cost increases have occurred during these, one of kind projects.

EM is also focused on mercury storage, consistent with the Mercury Export Ban Act (MEBA) (a bill sponsored by President Obama when he was a Senator), which assigned mercury storage as a DOE responsibility. Mercury is classified as material, not waste. EM had published a final EIS on storage alternatives, but subsequently chose to evaluate the use of WIPP as a storage location. The final supplemental EIS on the mercury storage is anticipated in early FY 2013. EM will decide its next steps following the Record of Decision. Two milestones within the MEBA have been missed due to Congress' lack of a resolution on the budget; however, EM is still pushing forward to make its remaining milestones. The MEBA required DOE to designate a facility by January 1, 2010. This has not been fully achieved because DOE has not completed the EIS and ROD process. The MEBA also requires the designated storage facility to be operational and accept custody of US mercury by January 1, 2013. DOE has been unable to initiate the new project for developing the facility due to ongoing NEPA evaluation and because of a "new start" could not be initiated during a continuing resolution, and DOE has not yet received appropriations or authorization for the project.

Salt disposal investigations in WIPP are being conducted in collaboration with the Office of Nuclear Energy (NE). Past studies on the potential disposal of heat-generating wastes, such as HLW, in salt are being reviewed. Work has begun on mining an alcove to locate a planned heater test to simulate how heat generating wastes will perform in salt media. WIPP is providing a research platform for the scientific test, but this does not mean that WIPP will be the disposal site. NE is also conducting studies on other disposal media for wastes.

In FY 2011, there were around 20,000 shipments of EM HAZMAT materials that traveled a total of more than 5 million miles. EM's HAZMAT shipment reportable rate has been good over the last three years. EM provides support to DOE transportation activities. It is appropriate to have transportation in the EM portfolio, as it is inherent to the waste management lifecycle. EM sites provide annual first responder training and conduct response exercises to ensure the Department is prepared for any transportation-related events.

EM has assisted in developing the Department's response to the BRC Report. The development of a strategic plan to implement the BRC recommendations is currently underway and is being led by NE. The BRC Report has implications for the future of EM's tank waste programs, but near-term efforts remain unchanged. (Note: BRC strategy subsequently published in January 2013).

Ms. Gelles was pleased to note that the BRC sees WIPP as a good model for a future repository. EM has built 13 years of safe operations and has successfully leveraged its stakeholder relationships in New Mexico and demonstrated how salt storage of waste forms is fully

protective. EM has a strong technical basis to bring greater certainty to DOE-owned waste streams.

Going forward, EM will find ways to be more fiscally efficient while safely retrieving waste. The program is methodically working through issues as they arise, and continuing R&D on improved HLW management.

Discussion

Mr. Preacher asked if the nuclear fuel facility in Idaho will be revitalized. Ms. Gelles acknowledged the need for a packaging facility in Idaho. EM has retained an NRC license for that facility and the design is available. The movement from wet to dry storage and maintaining the reliability of storage facilities is the right thing to do in the near term. EM's decision to defer construction of the facility is due to concerns about the packaging containers' ultimate acceptance in a yet-to-be developed repository.

Mr. Valdez wondered if bigger boxes would be ready to move waste off of the LANL site. Ms. Gelles shared that box remediation lines are in place and bigger boxes are not needed. She does not see TRUPACT -3 shipping casks being used at SRS as being applicable at Los Alamos. Regular shipping casks will be fine. Four additional remediation lines are needed and some regulatory changes will help sludge processing at Los Alamos.

Public comment period

None.

Discussion: Cross-Cutting Site Issues

Prior to the Chairs' meeting, each local board developed a list of issues that might be cross-cutting and therefore of interest to the members of other local boards.

<u>ORSSAB – David Hemelright</u>

The ORSSAB is concerned about the long-term stewardship of remediated areas at ongoing mission sites and asked about other sites' thoughts on stewardship. Mr. Hemelright stated that a portion of the OR Reservation is coming off of the national priority list, and the site is discussing future land use.

The ORSSAB sees D&D and cleanup funding as a cross-site issue.

Public awareness of the local boards' work is also important. Mr. Hemelright also stated that the *Advocate* newsletter, which is created by the ORSSAB, helps build community awareness and progress at the site.

NNMCAB – Carlos Valdez

The NNMCAB is concerned with site funding and, like some of the other sites, wants to learn more about the storage capacity and waste disposal opportunities at WIPP. Mr. Valdez noted that SRS and Nevada are under consideration for acceptance of GTCC waste. Ms. Bienenstein stated that Nevada would like more funding support. Dr. Bridges stated that citizens around SRS may be opposed to the GTCC waste being brought to the site.

Dr. Bridges suggested that the EM SSAB look at additional storage capabilities for WIPP. The NNMCAB issued a recommendation asking EM to expand the role of WIPP and is awaiting a response from DOE. Ms. Alexander stated that this is being considered.
Mr. Pacheco noted that an expansion of WIPP's mission could be contentious among local communities because the public does not necessarily want the waste coming through or into their town. Many in Carlsbad want to utilize WIPP. Ms. Bienenstein explained that Nevada's waste acceptance criteria do not qualify it for the type of waste going to WIPP. Currently, there is no waste in Nevada that can be sent to WIPP.

Hanford Advisory Board – Susan Leckband

Ms. Leckband explained that groundwater is an issue that affects Hanford, as well as many other sites. The HAB also sees the expansion of WIPP as an important cross-cutting issue for the sites.

Ms. Leckband expressed interest in receiving clearer information concerning out-year budget plans as related to waste disposition, as well as information on transportation corridors to communicate to the local boards and public. Ms. Leckband recommended that DOE have more demonstrations available in conjunction with national laboratories or universities to engage the next generation, similar to the site model displays shown at the Chairs' last meeting in Paducah in April 2012.

The EM SSAB discussed gathering site-specific information for a recommendation on groundwater contamination. The topic is well understood at SRS as groundwater has been characterized. Nevada has had public information sessions, developed interactive displays, and has a video that shows water flow. Portsmouth was under a regulatory program to comply with consent decrees. Suggested next steps from the Chairs included a DOE workshop on groundwater. The Chairs will work after this meeting to develop a recommendation for the next Chairs' call and will make efforts to learn more about groundwater issues at each site between meetings in order to better capture the challenges and issues.

Idaho CAB – Nicki Karst

Budget concerns continue to be an issue for Idaho and other sites. Idaho supports expansion of WIPP's mission, and encourages the DOE to look at current waste criteria to help optimize its use and streamline the acceptance process. Ms. Karst pointed out that achieving regulatory milestones is an EM priority and that is why fund allocation is so important. She agreed that there needs to be long-term funding for technology development, but understands that it may not be available.

PORTS SSAB – Will Henderson

There are financial benefits to recycling metal and other materials, including keeping them out of disposal cells. The site held a recycling symposium with cutting-edge vendors, public and private sector organizations, and subject-matter experts, including one who deals with surface contamination of steel. Mr. Francis stated that the General Services Administration (GSA) removes equipment from Portsmouth for resale and reuse. Similarly, Idaho has used housing units, blowers and other equipment left over from TRU waste recovery.

Ms. Clayton noted that Portsmouth and Paducah have massive amounts of metal that, if clean, could be very useful and valuable. She suggested that the EM SSAB Chairs consider this issue and develop a recommendation for the Spring 2013 meeting. Mr. Henderson added that recycling could help reduce disposition and legacy costs.

Another issue of concern for Portsmouth is the consolidation of landfills and plumes, which is part of the groundwater-contamination discussion. The site pumps and treats water resulting in positive, but short-term and incomplete results. Oil has been pumped into the ground to try and break down the material; hydrogen peroxide was used to neutralize trichloroethylene. These approaches worked, but they will not have long-term benefits.

Product Development: Discussion of Recommendations from the EM SSAB Chairs

The Chairs reviewed a draft recommendation to EM on contracting with small business. The members agreed to withdraw the recommendation, agreeing that it only pertained to the Idaho site.

The Chairs then considered a draft recommendation to EM to negotiate with regulators, to create more flexible milestones and to facilitate equitable fund distribution across the sites. The redistribution of funds may be challenged by the need to focus on critical priorities first and account for the concerns and priorities that are unique to each site. It was pointed out that funding levels differ across the sites and that funding cuts are not always equal. The Chairs discussed the costs and challenges associated with the process of renegotiating milestones and settlement agreements. The Idaho, Hanford and Oak Ridge Chairs agreed that funding allocations should be made on the basis of risk and priorities.

Ms. Alexander introduced Connie Flohr, Director of the Office of Budget and Bill Levitan, Associate Deputy Assistant Secretary for Site Restoration. Mr. Levitan stated that regulators are already taking action to address at-risk regulatory milestones. For instance, the National Governors Association's Federal Task Force has developed principles based on the equity of reductions and is working with each site to develop priorities. The Chairs agreed to review relevant documents before moving forward with the draft recommendation.

The Chairs considered a third draft recommendation requesting that EM provide an annual work plan for the entire EM SSAB. A work plan would show what activities are being developed throughout the year and would also set goals for the Chairs to accomplish. Ms. Bienenstein

pointed out that the intent of the draft recommendation was to enhance local board meeting productivity and accomplishments. The Chairs discussed a work plan that addresses focus areas and topics, with the opportunity to address specific topics at each meeting. This would fulfill EM SSAB's aim of discussing issues of mutual concern. A concise paragraph describing the discussion of collaborative and general areas that are presented could be voted on and would serve as an outline on what issues the EM SSAB will tackle in the upcoming year.

Closing Remarks and Adjournment

Ms. Alexander adjourned the meeting at 5:18 p.m. EDT.

DAY TWO

Catherine Alexander, the Designated Federal Officer for the EM SSAB, called the Chairs Meeting to order at 8:31 a.m. EDT.

Presentation: DOE HQ News and Views

Ms. Alexander highlighted site achievements and strategies that were not mentioned on the first day of the meeting.

Disposition flow charts like the waste decision and the groundwater flow charts at Hanford are useful for EM decision making. The charts give higher-level, easier-to-understand information and can encourage public engagement. Ms. Leckband will provide the address of the webpage that shows these charts for distribution to the EM SSAB.

Ms. Alexander stated that she planned to share a white paper from the SRS CAB about strategies for success. The SRS CAB also has a useful document explaining its site's cleanup program, which is given to new members to help them understand critical issues; the document will be provided for distribution to EM SSAB Chairs and members.

In 2012, OR presented a white paper on the site's geological complexity. It described the risk of not completing the cleanup quickly and properly. Topics that are discussed include the water shed, population around the site, and the ORNL as a huge scientific complex. ORNL operations must continue due to the critical nature of its work. Mr. Martin explained that the paper is on the ORSSAB website and will be shared with Ms. Alexander. The paper has been used to communicate issues with elected officials and county officials.

Ms. Clayton stated that Paducah created a video about site history, from recorded interviews with former employees, who recall Paducah history. Participants read prepared statements in order to comply with the limits on sharing classified content. The video was shown at a Paducah SSAB meeting at the Paducah site.

Portsmouth has a virtual museum found at http://www.portsvirtualmuseum.org. It includes interviews, historical documents, and site data. The site leverages the former company newsletter, *Wingfoot Clan*, and old photographs from events such as the company picnic.

The NNMCAB's new office is about 20 miles north of Santa Fe and provides more office space and a dedicated meeting space. Also, during a public meeting in March, there was discussion of issues involving the Sandia National Laboratory and Kirtland Air Force Base. The NNMCAB is exploring how far to reach out without compromising its scope. Meetings are held throughout the northern region of New Mexico.

Among other updates, Ms. Bienenstein stated that Nevada's Atomic Testing Museum is now part of the Smithsonian Institution. Dr. Bridges stated that SRS has created a presentation to describe the scope of SRS CAB activities for communication to civic clubs and individuals. The presentation should be available at the next Chairs meeting.

Presentation: EM SSAB Best Practices Roundtable: How to Chair a Local Board

Ms. Alexander explained that she is organizing a session at the Waste Management Symposium in February 2013 that will include an assessment of the effectiveness of advisory boards. A number of experienced Chairs shared different aspects on how leadership best practices for local board chairpersons. Ms. Alexander will incorporate some of the lessons learned in the following presentations into her session at the symposium.

Public Involvement – Val Francis

The Portsmouth SSAB has been in existence for a short time, and its constituents are in a relatively lowincome and rural area. The site received attention when operations were shut down, and it became clear that the waste from dismantling buildings at its gaseous diffusion plant would have to be managed. Initially, mistrust existed between the site and the surrounding community, and the local board was set up to help convey information to the public, commissioners, and trustees on the effects of managing waste. A list of facts and myths about the site was created for the public and the board worked on understanding the public concerns and responding to these concerns with clear and accurate data. The direction for the site was explained in a forthright and honest manner, and communication at the site is ongoing. The site contractor has willingly worked with the Portsmouth SSAB.

Mr. Francis shared an instance in which a rumor was circulated that the Portsmouth SSAB was going to make a decision on moving forward with onsite cell storage. Stakeholders flocked to the board meeting, and the board tried to convey their role in the matter and clarified that they can only make recommendations to the DOE.

Discussion

The HAB has improved understanding with the public of Hanford site activities and cleanup plans. The HAB's meeting agendas are clear, and public input is always respected. If the issues

brought by members of the public cannot be addressed by the HAB, the board helps direct citizens to resources that will address their concerns.

At times, the public believes that problems will be solved quickly, which is often not possible. Local boards must convey the scope of problems, as well as the roles of the board and DOE. Harold Simon of the SRS CAB mentioned that members of the board attended an Environmental Justice meeting in January 2012, where community members voiced concerns about SRS and emergency management. This prompted the SRS CAB to become more educated about SRS and about the possible impacts of these voiced concerns. It also prompted the members to learn more about their role in these circumstances. Ms. Alexander noted that the Environmental Justice community's perspective and views on emergency preparation have not been heard before.

Work Planning with Local Boards - Ralph Young

Typically work plans begin with DOE direction, communicated by the local board's DDFO. A timeline is created, which identifies the best time for the board to give their input. Work plans start with an end date for activities and identify timing schedule for the CAB's involvement.

Work plans are iterative and must be flexible to involve many variables and parties. Plans need to be revisited quarterly or monthly as dates and activities change. It is helpful to go back to a prior plan and determine if targets were met and to identify lessons learned.

Discussion

Work plans should be developed by each local board at the beginning of each year to identify issues. Mr. Simon suggested that the DDFO can present concerns for consideration, but each board should develop an issues list to prioritize and determine what the work plan should cover. Processes should exist for adding activities during the year and the timeline should be used to show whether goals have been met. The DDFO can offer guidance.

At the start of each year, DOE presents a list of topics to the HAB about which the agency would like the HAB to develop recommendations. Issues are identified by the board as subcommittee-specific or cross-subcommittee. These are addressed in the HAB work plan, which must stay flexible to deal with new developments or changes in site work schedules. The ORSSAB also hears from liaisons from the EPA and State of Tennessee on items that they believe need to be addressed.

Mr. Simon pointed out that work plans can cover topics that require research and do not necessarily result in recommendations. The plan evaluation can include the extent to which work on a topic was completed.

Sometimes additional detail is needed to inform recommendations and to tie subject matter to policy. There are occasions where agencies seek to know the full breadth of concerns on a subject. Boards can assess their work plans at scheduled times to see the results, the effect of response, and to discern the appropriateness of pushing some issues to subcommittees.

The NNMCAB evaluates its plans quarterly and has its members complete an annual survey. The ORSSAB looks at its plan monthly and adjusts meetings based on schedules or a need for more information. Idaho's facilitator uses an online survey for plan evaluation. This is part of an annual retreat that devotes a half-day to board performance, individual performance, and progress over the year. The HAB has facilitators track decisions and impacts, which are revisited biannually, and offers members the chance to propose changes in how the board operates.

The HAB includes regulators and state agencies in its evaluation. Regulators in New Mexico are supportive of the NNMCAB and proponents of CAB funding. Nevada has regulators and state and county officials serving as liaisons, who give updates on areas of interest. The ORSSAB includes regulators in developing its work plan and receives their input on current issues that need to be addressed.

Ms. Alexander pointed out that federal advisory committees are accountable to the agency under which they are chartered. The agency drives the mission and work plans, and determines if committees and funding support is of value. DOE has been flexible in soliciting input on general and site-specific issues. To some extent, boards allow for the exploration of additional issues that are important to individual members, but each local board must keep in mind that it needs to address issues as requested by the agency.

Working with Technical and Non-Technical Board Members – Carlos Valdez

Mr. Valdez reminded the Board that the EM SSAB mission is to provide advice and recommendations to EM on issues affecting the EM program at different sites. At the NNMCAB, the depth of technical issues can vary. Board membership includes those with technical knowledge, but overly-technical discussions can hamper open communication with less technically oriented members and interested members of the public. The Board must also maintain diversity reflective of the community.

Mr. Valdez suggested that CAB leaders must strive to drive broad issues and not just highly technical topics.

A strength of more technically knowledgeable members is that they can mentor other less technical members. Non-technical members often are able to effectively provide information to the community in laymen's terms. All members must serve on at least one subcommittee. All can offer comment and use a round-robin opportunity to share input in a supportive environment, regardless of technical background. Technical knowledge is also built through presentations by experts from other nearby communities.

Public visibility of the NNMCAB is enhanced by the local media.
Discussion

Ms. Alexander remarked that EM SSAB members are not selected based on educational levels. There are expert-level boards in EM and DOE, and members of federally chartered expert boards must provide full financial disclosure. The EM SSAB is chartered such that members are

representatives of and are chosen from their communities. EM recognizes the valuable contribution of members who do and do not have technical expertise.

Social events can help break down barriers between individuals of different backgrounds and foster interpersonal relationships that lead to a productive and engaging board environment.

Working Toward Consensus – Susan Leckband

The HAB is a consensus board, and there are skills that create a good consensus builder. Members speak in a civil manner and try to understand each viewpoint and each new perspective.

A Chair must be open and objective, calm, and must not bring any surprises, as environmental issues can elicit strong emotions. The Chair also cares about and affirms the value of each member's viewpoints as this makes the board productive.

Prior to a meeting, the Chair should arrive early and greet all the attendees, including the public. The Chair should work with new members through the board orientation.

When the meeting opens, the Chair should lay out the rules about civility, good behavior, and meeting operations, and set the overall tone of the meeting. Topics are introduced by the Chair or designated members, and background is provided to ensure common understanding. The goals for particular issues are defined, in order to drive a discussion toward an outcome.

Continuously surveying the room allows the Chair to provide everyone a chance to give input. Asking for the public's feelings and continuing to engage the members can allow less technically savvy individuals an opportunity to give input.

The HAB round robin is called a sounding board; this process helps to avoid hearing from just a few people. This can create interesting sidebar conversations and provide diverse opinions.

When forming advice, developing the right wording can be challenging. Tools are available to help and Chairs and facilitators can work out compromise language that is acceptable to all. The HAB has reached compromise language on more than 250 pieces of advice.

Advice often starts with a subcommittee proposal that then goes to the full HAB. It may go back to the subcommittee for discussion and improvement. Meetings end with a positive statement and appreciation for the members' participation.

Discussion

The Portsmouth SSAB has a mentorship program in which senior board members work with newly assigned members. This is an informal program where new members are encouraged to call upon the senior member to receive a briefing, so not to appear naïve on a particular topic.

The SRS CAB works toward common ground by allowing people to disagree, to hear concerns, and to find areas of agreement. Questions that cannot be answered due to time constraints become the Chair's or facilitator's responsibility for follow-up to the meeting. At the HAB, consensus is reached by agreeing on the goals that need to be accomplished. The NSSAB publishes value statements for discussion at the next board meeting and strives to see how advice is reflective of the board's values.

Ms. Alexander pointed out that unanimity is not required for recommendations. Researchers have cautioned against requiring complete agreement from deliberative bodies, because if membership is truly diverse, then divergence is likely and even to be expected. Recommendations can become very watered down and deliberations very lengthy if true consensus is required.

Product Development: Discussion of Recommendations from the EM SSAB Chairs

The Chairs reviewed the draft recommendations that were developed after day one of the proceedings. Draft recommendations that are approved by the Chairs must be taken back to the local board members for a vote. Recommendations that are approved by local boards are submitted to the Office of the Assistant Secretary for EM with signatures of the Chairs of the approving boards.

An earlier recommendation to develop an EM SSAB work plan was withdrawn by Ms. Bienenstein and will be resubmitted in Spring 2013.

The first draft recommendation encouraged DOE-EM to evaluate additional storage and disposal options for legacy waste that could result from an expansion of the WIPP disposal mission. A test program in this area could provide valuable input and serve as a precursor for the DOE program for high-level waste disposal. Mr. Valdez moved to accept the recommendation, it was seconded by Mr. Henderson, and the recommendation was approved by the EM SSAB with none opposed.

The second draft recommendation suggested that DOE work with other national leaders to separate the disposition programs for defense high-level waste and the commercial high-level waste. Mr. Simon moved to accept the recommendation, it was seconded by Ms. Leckband, and the recommendation was approved by the EM SSAB Chairs with none opposed.

The third draft recommendation asked DOE to not constrain funding for technology research and development. The Chairs recognized that without innovative solutions for the future, the cost and timing of the cleanup projects could jeopardize compliance with regulatory milestones and extend cleanup costs. Mr. Simon moved to accept the recommendation, Mr. Pacheco seconded, and the recommendation was approved by the EM SSAB with none opposed.

The fourth draft recommendation proposed that DOE place more emphasis and priority on evaluating technologies that could make recycling excess metals cost effective. Mr. Henderson suggested tabling this recommendation until Spring 2013 because Portsmouth is working on a similar, more extensive recommendation that it could present at that time. The Chairs'

recommendation was instead updated to include recycling "materials" instead of "metals", and Mr. Henderson removed his motion to table the recommendation. Mr. Valdez moved to accept the recommendation as amended, Mr. Simon seconded, and the recommendation was approved by the EM SSAB with none opposed.

Public Comment

None.

Board business

Per a previous request during the meeting, the Chair of each local board outlined how often their own boards meet, as well as the typical length of the meetings and any subcommittee meetings that may occur during the year.

Closing remarks and adjournment

Ms. Alexander thanked the Chairs, local board staff and federal staff for their participation in the meeting. She adjourned the meeting at 12:33 p.m. EDT.