

**ENVIRONMENTAL MANAGEMENT ADVISORY BOARD  
to the  
U.S. DEPARTMENT OF ENERGY**

**PUBLIC MEETING MINUTES**

**U.S. Department of Energy  
Skeen-Whitlock Building Auditorium  
4021 National Park Hwy  
Carlsbad, New Mexico 88220  
April 23, 2019**

## LIST OF ACRONYMS

BRAC – (Department of Defense) Base Realignment and Closure  
DFO – Designated Federal Officer  
DOE – U.S. Department of Energy  
D&D – Deactivation & Decommissioning  
EM – (DOE) Office of Environmental Management  
EM CBC – Office of Environmental Management Consolidated Business Center  
EMAB – Environmental Management Advisory Board  
EPA – U.S. Environmental Protection Agency  
FACA – Federal Advisory Committee Act  
Hanford – (DOE) Hanford Site  
HQ – U.S. Department of Energy Headquarters, Washington, D.C.  
IDIQ – Indefinite Delivery Indefinite Quantity  
NEPA – National Environmental Policy Act  
NMED – New Mexico Environment Department  
Oak Ridge – (DOE) Oak Ridge Site  
Portsmouth – (DOE) Portsmouth Site  
Paducah – (DOE) Paducah Site  
SRS – (DOE) Savannah River Site  
TRU – Transuranic Waste  
WIPP – Waste Isolation Pilot Plant

## PARTICIPANTS

### Environmental Management Advisory Board Members:

Mark D. Fallon, Envirocon  
Jane Hedges, Consultant  
Diahann Howard, Port of Benton  
Carolyn Huntoon, Consultant  
Randall Jostes, Environmental Liability Transfer, Inc.  
Kimberlee Kearfott, University of Michigan  
Frazer Lockhart, Stoller Newport News Nuclear  
Tracy Mustin, Consultant, EMAB Vice-Chair  
Josiah Pinkham, Nez Perce Tribe  
Beverly Ramsey, Consultant, EMAB Chair  
Timothy Runyon, Consultant  
Shelly Wilson, Longenecker & Associates

### Board members not present:

David Abelson, Abelson Partners  
Elliott Laws, Crowell & Moring LLP  
Tracye McDaniel, McDaniel Strategy Ecosystems  
James Rispoli, Project Time & Cost, LLC  
Robert J. Thompson, Energy Communities Alliance

### Department of Energy Participants:

Anne Marie White, Assistant Secretary for Environmental Management  
Betsy Connell, Acting Associate Principal Deputy Associate Secretary for Regulatory and Policy Affairs  
Jeff Griffin, Associate Principal Deputy Assistant Secretary for Field Operations  
Linda Suttora, Acting Director, Regulatory, Intergovernmental, and Stakeholder Engagement  
Steve Trischman, Director, Office of Budget and Planning  
Todd Shrader, Carlsbad Field Office Manager  
David Borak, Designated Federal Officer, Environmental Management Advisory Board  
Jared Bierbach, Office of Regulatory Compliance  
Alyssa Harris, Contractor Staff, Office of Intergovernmental and Stakeholder Programs

## MEETING MINUTES

The U.S. Department of Energy's (DOE) Environmental Management Advisory Board (EMAB) met on April 23, 2019 at the DOE Carlsbad Field Office in Carlsbad, New Mexico. Participants included EMAB members, DOE staff and contractor support staff. The meeting was open to the public and conducted in accordance with the requirements of the Federal Advisory Committee Act (FACA).

### **Opening Remarks**

Mr. David Borak, EMAB Designated Federal Officer (DFO) called the meeting to order at 8:00 a.m. MT. He welcomed meeting attendees to Carlsbad. Ms. Tracy Mustin, EMAB Vice-Chair, noted that she would be leading the meeting, as EMAB Chair Beverly Ramsey was unable to attend in person, but was attending via phone.

Ms. Mustin told the attendees that in accordance with FACA, all discussions at this meeting would be made available to the public in the minutes. She stated that there will be an opportunity for public comment at 4:00 PM MT. She reminded all registered lobbyists that they must identify themselves as such before speaking during public comment period. She also asked any members with a conflict of interest to announce their recusal for the record prior to the discussion. She encouraged those interested in learning more about the EMAB to visit their website at [www.em.doe.gov/emab](http://www.em.doe.gov/emab).

The attendees each introduced themselves and their titles. Members attending the meeting via teleconference included Mr. Josiah Pinkham and Ms. Beverly Ramsey. Members not in attendance included Mr. Elliott Laws, Ms. Tracye McDaniel, Mr. James Rispoli, and Mr. David Abelson.

### **Remarks by DOE Assistant Secretary for Environmental Management Anne White**

Ms. Mustin introduced DOE Assistant Secretary for EM Anne White. Ms. White opened her remarks by thanking the EMAB members for coming together in this forum and volunteering their time. She acknowledged their success in creating a meaningful recommendation regarding the Consortium for Risk Evaluation with Stakeholder Participation's Risk Review and noted that DOE is working diligently to implement this recommendation.

Of the two charges Ms. White charged the Board with in March 2019, she said that she finds them both crucial to EM's mission of closure. The first charge is to examine workforce and community engagement during the transition phases of closure sites to ease the economic impacts to workers. The second charge is to examine the effectiveness and optimize staffing of the EM organization to advance cleanup.

Ms. White highlighted the importance of attracting the next generation of workers, noting that younger workers are not attracted to hierarchical organizations. She said that she would like to

see the EM organization modernized to focus more on a holistic program management approach across the complex.

Ms. White discussed the Department's analysis of regulatory reform and the potential reinterpretation of High-Level Waste, as well as efforts to streamline National Environmental Policy Act (NEPA) compliance activities and more clearly define budget categories or buckets.

Ms. White stressed the importance of working together towards a clearly defined end state that the host communities help to envision.

Discussion:

Mr. Frazer Lockhart asked if Ms. White sees a challenge to recruit young people that are looking for a long-term career when the goal is closure of the sites. Ms. White responded no, saying that the excitement of closure and completion of a mission can be exciting for young people.

Ms. Diahann Howard commented that millennials are typically not committed to a job for life like previous generations once were. She thinks that the closure mindset will attract young people interested in environmental cleanup, creating safety in their communities and seeing a project to completion. Ms. Mustin added that the concept of accomplishing something tangible is a draw to young workers.

Ms. Carol Johnson asked how Ms. White would like to see the hierarchical structure change. Ms. White responded that a clear plan still needs to be developed and that it won't happen overnight.

Ms. Mustin asked Ms. White about her philosophy for dealing with the relationship between DOE Headquarters (HQ) and the field. Ms. White responded that the power has shifted back and forth over the years and currently it is more field-centric. She discussed the importance of enabling the field while also exercising the oversight role of HQ. She said that to function more effectively, skills and tools need to be in place to monitor activities at the site and enable them to be successful rather than becoming a barrier.

Ms. Jane Hedges commented that the idea of regulatory reform can be intimidating to regulators, even if it is necessary. She asked if DOE is looking at the DOE Orders when analyzing regulatory reform. Ms. White confirmed yes, stating that the Department is focused on directives and EM is currently examining how to be compliant while also efficient.

Ms. Betsy Connell, Associate Principal Deputy Assistant Secretary for Regulatory, added that there are many changes to the directive system underway. She said that EM is moving away from manuals and focusing on what needs to be done in each situation. She also said that DOE is looking at streamlining decision making and establishing metrics for NEPA, such as the length of time it takes for NEPA documentation to be issued.

Mr. Tim Runyon asked if EM is looking at the federal employee to contractor ratio and how much oversight is necessary. Ms. White said that this is what she hopes the Board will examine in their charge and determine what the most effective mix might look like.

Mr. Lockhart asked if Ms. White sees the EM Consolidated Business Center playing a part in the charges to the Board since they will be critical to the acquisition changes to drive cleanup. Ms. White responded yes, she has already started to consider EM CBC to be less like a site and more like an extension of HQ.

Ms. Shelly Wilson asked for clarification of how an end state will be determined. Ms. White said that when future land use is understood, the interim end states can be crafted to drive there. She said that the charge to the Board is to determine how to develop future land use in a way that involves the community.

Mr. Randall Jostes asked if there are penalties for a contractor going over budget or delivering late. Ms. White responded yes, with the end state contracting model if the contractor is under budget, they receive 30% more award as an incentive. She discussed the encouragement for positive behaviors with the end state contracting model. Mr. Lockhart asked if Ms. White had any thoughts on engaging and motivating stakeholders with a similar mechanism. She responded that when these weapons were being produced there was a commonality of purpose and this commonality should remain throughout cleanup. She noted that environmental liability is the third largest liability to the U.S. taxpayer. She stated that all stakeholders need a seat at the table.

Ms. Kimberlee Kearfott commented that her graduate students, though all from different backgrounds and different fields of study, when faced with a challenge together, they created their own solution without being asked. She admired this automatic sense of urgency and the ability to overcome any diversity issues. She added that young people are entrepreneurial, and she is very sure of this generation's abilities.

Ms. White emphasized the great job that the federal workforce is doing. She said that she is heartened by the progress that EM is making and that these charges to the Board are going to push that success even further.

### **Future of the Waste Isolation Pilot Plant (WIPP) Presentation**

Ms. Mustin introduced Mr. Todd Shrader, the Field Manager of Carlsbad Field Office. Mr. Shrader welcomed attendees to Carlsbad and noted that the high cost of living due to the oil and gas boom has created challenges for attracting and keeping the workforce at WIPP. He said that some procurements will receive no bids because the companies don't need the work from WIPP and the government's regulations can be tedious.

Mr. Shrader mentioned the exothermic event in 2014 that shut down WIPP for three years. They have since recovered and reopened. He said that waste is currently being emplaced in Panel 7, which has seven rooms and two and a half more years until emplacement is completed in this area. He said that WIPP received the first remote-handled shipment from Argonne National Laboratory last fall. In Panel 8, salt mining activity has been taking place for the past year.

Mr. Shrader said that one limitation is air quality, since there is limited airflow in the underground. He said they have embarked on a major project to build a new ventilation system that will be completed in two to three years and will significantly help. All equipment at WIPP is diesel, which produces exhaust. Mr. Shrader said that they have a very conservative approach to monitoring the effects of this to the air quality. He said that WIPP is looking into electric vehicles to solve this problem, but it won't be a reality in the next two years.

Mr. Shrader said that the mine is one mile long by a half mile wide. The south end was contaminated and abandoned approximately two years ago. He said that enclosure barriers are being installed to completely isolate it. He also said that human intrusion is the most likely cause of disturbing the waste in the future. To mitigate this, salt and other substantial barriers isolate the panels from each other so that the waste cannot be removed. He said that when mining the salt, the filters get plugged up. The new ventilation system will allow them to easily exhaust salt-laden dust without having to filter it.

Ms. Wilson asked how much capacity was lost by isolating the south end. Mr. Shrader said that it was approximately one room that is 33 feet wide, 300 feet long, and 15 feet high.

Mr. Shrader said that one of the contractors that WIPP hired purchased an old hotel to reduce the cost of lodging in the area for their employees, but the lack of plumbers in Carlsbad has caused a delay in the startup of this hotel.

Mr. Shrader mentioned another capital project to build another utility shaft later this year. He said that the Land Withdrawal Act limits WIPP to emplacing 176,000 cubic meters of waste and 70,000 cubic meters have already been filled. He noted that it may take 30 years to fill the remainder. More disposal capacity will need to be created in the future.

Ms. Jane Hedges asked how the future reinterpretation of waste might affect WIPP's estimates of waste. Mr. Shrader said that even with a change, some of the tanks that would be considered transuranic waste (TRU) are already in WIPP's inventory data and with potential additions, WIPP would be able to handle the waste.

Mr. Shrader discussed the challenges of rehabilitating infrastructure built over 25 years ago. He estimated that it would cost approximately \$150 million over the next five to ten years. He noted that Congress has been very supportive of their infrastructure budget.

Mr. Shrader said that 525 shipments have been made to WIPP since April 2017, and currently eight to ten shipments arrive each week. He noted that Los Alamos National Laboratory's shipments to WIPP are expected to ramp up over the next year, and six metric tons of waste from Savannah River Site (SRS) are being down-blended for shipment.

Mr. Shrader said that legacy waste is the most difficult to handle because it often has vague descriptions from the 1950's. This causes a challenge for compliance and ensuring safe disposal. Once the legacy waste from Idaho is all delivered in the next few years, WIPP will begin supporting the National Nuclear Security Administration's mission, as well as Hanford's TRU waste.

Ms. Johnson asked if the new ventilation system will impact the shipments. Mr. Shrader responded that the system will make it much easier to work underground, but WIPP is still deciding what the optimal number of shipments should be.

Ms. Mustin asked if the workforce will limit the work due to the local challenges that Mr. Shrader discussed earlier. He responded that he doesn't see it becoming a problem yet, and the workforce needed for waste handling is not very large.

Ms. Connell asked if Idaho shipments will start ramping down soon. Mr. Shrader said that he doesn't expect it to drop for the next few years.

Mr. Shrader discussed WIPP's shift to using shielded, lead-lined containers which will enhance efficiency of shipments. Although these containers cost more, they will quicken the cleanup and reduce the hotel costs.

Mr. Shrader discussed the waste certification programs at the sites to characterize the waste before it is shipped. WIPP sends a team to the site to verify that the shipment meets the waste acceptance criteria. Mr. Shrader noted that this is an expensive, rigorous process to assess all the chemical constituents and ensure that it can be safely transported.

Mr. Shrader, Ms. Wilson, and Ms. Mustin discussed the importance of keeping WIPP operational and supporting the infrastructure. Mr. Shrader noted that if WIPP were to stop operations permanently, the national defense mission grinds to a halt.

Ms. Mustin thanked Mr. Shrader for his presentation.

### **EM Regulatory and Policy Affairs Update**

Ms. Betsy Connell began by briefly reviewing organizational changes in EM. She introduced Linda Suttora, acting as Director of Regulatory, Intergovernmental, and Stakeholder Engagement. Ms. Connell described the infrastructure organization at HQ which is focused primarily on supporting new scopes of work for Deactivation and Decommissioning (D&D). She discussed the D&D priorities for facilities that are not owned by EM, listing Lawrence Livermore and Y-12 at Oak Ridge. Pre-D&D activities are currently taking place at Lawrence Livermore such as asbestos removal. Ms. Connell said that EM has a long-term plan to put a D&D Indefinite Delivery Indefinite Quantity (IDIQ) in place in 2020. She discussed EM's potential handling of the D&D of Naval Reactors in upstate New York. She also mentioned Idaho's Naval Reactors Facility and Bettis Atomic Power Laboratory near Pittsburgh as priorities.

Ms. Connell discussed upcoming land transfers, including a one-acre square parcel at Moab, and land at Portsmouth and Paducah. Of the latter, she noted the electrical capacity of this land is being looked at for manufacturing reuse by the community.



Ms. Connell discussed the significant priority of high-level waste reinterpretation. She said that EM received over 5000 comments to the federal register notice with 32 discrete issues identified that EM is working through carefully.

Ms. Howard commented that it is unfortunate that the communities couldn't be involved in supporting this effort, noting that the communications that have come out from DOE about this have highlighted the amount of money that will be saved rather than the impacts to the cleanup and community.

Ms. Wilson commented that she respects DOE's decision to put the idea out for the public to discuss and provide feedback on. Ms. Connell said that EM is fortunate to have a stakeholder community that is quite supportive. She commended the Energy Communities Alliance for leading discussions on this issue. She acknowledged that this is an opportunity to reduce risk more rapidly.

Ms. Connell said that getting DFLAW operating and treating waste by 2023 or sooner is the highest priority.

Ms. Connell discussed greater than Class C low-level waste and the preferred alternatives for disposal at commercial facilities and WIPP. She said that the next step is for the NRC to act and for DOE to then move forward with a record of decision.

Ms. Connell discussed depleted uranium from DUF6 at Portsmouth and Paducah and the potential disposal at commercial facilities. She also mentioned a business case analysis of the AMWTP in Idaho that reached the end of its mission. EM considered bringing in waste from other sites to extend its mission, but the justification was not there. AMWTP will shut down.

Ms. Connell said that DOE completed 7,700 waste shipments in Fiscal Year 2018. She said that DOE operates 14 low-level waste surplus disposal facilities across the country and LFRG experts support decision making at these facilities. Ms. Suttora added that the LFRG is a federal-led organization with contractors to provide specific expertise. She said that the focus of LFRG is to ensure the sites meet the minimum compliance requirements for at least 1,000 years post-closure.

Ms. Connell said that this fiscal year EM is working on a Hanford composite analysis and burial grounds performance assessment.

Ms. Connell discussed the intergovernmental program, mentioning the DOE-Environmental Protection Agency (EPA) dialogue that occurs twice annually. She emphasized the robust relationships that EM has with community organizations such as the Energy Communities Alliance, National Governors Association, National Conference of State Legislators, and State and Tribal Government Working Group. These groups convene at the annual Intergovernmental Meeting each fall. She noted that the State and Tribal Government Working Group has a report on long-term stewardship that was recently updated called the Seventh Generation Report that can be found online. She mentioned that DOE's Office of Legacy Management is a key partner with EM.

Discussion:

Ms. Johnson asked where the Naval Reactors fall on the scale of priorities. Ms. Connell responded that EM is not accepting their environmental liability or owning the facilities.

Ms. Mustin said that both subcommittees will be following up with Ms. Connell and her office to discuss staffing and skills challenges.

Ms. Hedges asked if representation from the National Governors Association will continue now that Ms. Wilson is no longer representing their views. Mr. Borak responded that the Board can discuss this possibility. He let the members know that if they have any suggestions for potential new members, EM is open to hearing them.

### **EM Field Operations Update**

Mr. Jeff Griffin, Associate Principal Deputy Assistant Secretary for Field Operations, introduced himself and described Assistant Secretary White's goal to view the EM organization holistically to accelerate closure and completion. He emphasized EM leadership's goal to reduce overhead costs and allocate more dollars to cleanup activities.

Mr. Griffin elaborated on the idea of end state contracting, a two-step process of finding the right contractor partners and negotiating IDIQ to determine end states. He said that defining the end states in the post-award phase allows adjustments for changes in the regulatory environment or budget. He added that DOE will continue to engage and negotiate over the life of the contract. He acknowledged that from a site perspective, this will be a staffing challenge that hasn't been mastered yet. He said that support will be necessary in both the contracting and technical areas to understand what the viable end states are.

Ms. Mustin asked if EM is considering how they will handle contract authority at the field level. Mr. Griffin responded that the concept is being worked out. He explained that the site managers were each asked to creatively analyze how the site could be potentially closed in 10 years or less, apart from Hanford. He said that this outside-the-box thinking can then lead to a clear determination of the barriers and possibilities at each site.

Mr. Griffin said that this strategy is helping Ms. White determine if there are sites that can be put on a faster track to close sooner. He said that by laying out the ideas that come from this exercise, there is the potential to build support for an enhanced budget. He also said that DOE is looking for ways to receive input from the public on this exercise.

Ms. Johnson asked if he sees this analysis becoming part of a strategic plan. Mr. Griffin responded that it is possible for it to influence the strategic and tactical plans.

Mr. Griffin said that another goal is to look at how to reduce the hotel costs. Ms. Johnson asked if they will be taking a different approach from what has been done in the past. Mr. Griffin

responded that he is working with the budget office to take a close look at how to be effective and at what has been tried in the past.

Ms. Wilson suggested that there may be an opportunity for the sites to “lease out” a portion of the site for other comparable activities that support the overall mission. Mr. Griffin said that there has been some discussion of this at various sites.

Mr. Runyon commented that the biggest challenge of end state contracting is ensuring that the contract’s capabilities align with that the end state ends up as, since the negotiations are continuing post-award. Mr. Griffin agreed. Ms. Mustin said that the challenge still exists with the current way contracting is done, where the baselines are not accurate or up to date.

Ms. Kearfott said that currently, the individual employees of the contractor are not incentivized to think creatively about ways to save money. She suggested that the contractor employees get a percentage of any money they save the project with their ideas and get rewarded for reducing risk. Ms. Connell noted that at the national laboratories, when the lab meets its goals, that success is shared with the employees monetarily.

Mr. Griffin discussed the Performance Evaluation Management Plans at the sites that help drive what the goals are each year. He said that the goal is to create more focused steps from these plans to help move toward consistency and strong direction. He said that he would like to see more consistency in contracting at all of the sites, keeping in mind that each site is very different.

Mr. Griffin said that regarding EM CBC, Mr. Paul Bosco, Associate Principal Deputy Assistant Secretary for Corporate Services, will be leading and Mr. Griffin will be the reviewing official. He said that this will help with transparency and consistency.

Mr. Mark Fallon said that he recognizes accelerated closure as a sensible policy objective of leadership and that end state contracting is an essential tool in implementing that. He asked what the inherently federal functions of managing end state contracting are. Ms. Connell responded that most of it is inherently federal, as they relate to budget and planning.

Mr. Fallon said that new contracting mechanisms should also extend to the managing of contracts, suggesting that it would be a good time to reevaluate how the management process is done. Mr. Griffin said that this is to be expected. Mr. Trischman added that when closure contracts begin to transition, federal oversight changes.

Mr. Griffin ended by noting that each of the EM organization’s program offices are not truly independent because each element of EM depends on one another.

## **EM Budget Update**

Mr. Steve Trischman, Director of Budget and Planning, began by reviewing the budget timeline, stating that the 2020 budget request has been submitted and congressional budget hearings are taking place. He said that the 2021 budget process will be kicking off soon.

Mr. Trischman discussed the three major accounts of the EM budget: Defense Cleanup, Non-Defense Cleanup, and the Uranium Enrichment D&D Fund. He said that Congress has been more supportive each year. He showed a breakdown of each site's budget request and enacted budgets. This detailed breakdown can be found in Mr. Trischman's budget presentation located on the EMAB website.

Ms. Mustin asked why SRS is the only site that did not receive an increase in funding relative to their request. Ms. Hedges commented that Hanford is very well supported by Congress and suggested that it may be helpful for Hanford to ask for more money in order to garner more funding for the program as a whole. Ms. Johnson asked what drove the decision to not give SRS an increase in funding.

Mr. Trischman noted that they did receive an increase in comparison to the prior year. He said that from the Hill's perspective, this is considered a plus-up even though it is less than what EM requested for SRS. Ms. Connell commented that the composition and staffing of the committees can affect the amount of support that SRS receives.

Ms. Kearfott asked if contractors have the ability to shift funding between sites. Ms. Connell responded no.

Mr. Trischman said that the Salt Waste Processing Facility is set to come online in the next year, ramping up the processing rate from 1 million gallons to 9-10 million gallons and saving time and money. He added that another top priority is the new ventilation system at WIPP, which is key to ramping up shipments.

Mr. Trischman said that the Direct Feed Low Activity Waste at Hanford is another priority which is scheduled to begin treating tank waste by December 23, 2019. He listed another priority as the construction of a mercury treatment facility at Oak Ridge. He emphasized Assistant Secretary White's focus on maximizing every cleanup dollar.

Ms. Hedges asked for clarification on how technology is prioritized in the budget. Mr. Trischman said that technology is part of other line items in the budget rather than its own line item. He clarified that each site has an element of technology development support embedded in the site's budget for use as needed.

Mr. Trischman discussed the history of EM, formed in 1989 with a budget of \$1.7 billion taking over just a few projects. The budget shot up to \$6 billion after EM took over more sites from defense programs, and dipped again after Rocky Flats and Moab were completed. He discussed a brief 30 year history of EM's environmental liability, pointing out the history of studies, plans and analyses. He noted that DOE is 85% of the Federal Government's liability.

Mr. Trischman went through the list of estimated completion dates of the sites, the soonest closure being Brookhaven National Laboratory in 2020. He noted that the nondefense sites, such as Moab, are competing with other important areas of government for funding.

Mr. Trischman said that Portsmouth has been able to accelerate the criticality verification process, which verifies if there is a problem with uranium. He said that this has allowed them to move through the decontamination process quicker.

Mr. Trischman said that in 2023, the liquid waste mission at SRS is set to be complete, while H-Canyon will continue to be necessary for the National Nuclear Security Administration's mission.

Mr. Lockhart asked if the estimated completion dates of the sites are based on anticipated budget request levels. Mr. Trischman responded no, they are baselines that each site developed to be compliance driven, assuming more than the congressional budget request.

### **Status of Eddy-Lea Energy Alliance Proposed Consolidated Spent Fuel Project**

Mr. John Heaton, member of the Eddy-Lea Energy Alliance, began with an overview of the Eddy-Lea Alliance, made up of the Eddy and Lea counties that contain the cities of Hobbs and Carlsbad. The group was formed for joint economic development efforts. He said that there is great local support of this alliance.

Mr. Heaton said that the alliance purchased 1,000 acres of land for the purpose of storing waste. He said that Holtec Corporation was chosen by the alliance as the safest company for the storage of waste.

Mr. Heaton explained the process of packing waste for shipment, which begins with ceramic pellets placed in fuel rods inside of a canister, inside of a cask. He said that this makes it extremely robust and safe for transport. He gave a brief summary of how the materials are packaged and shipped via rail. He noted that over 12,000 shipments to WIPP have occurred without incident in virtually indestructible casks.

Mr. Heaton said that there is potential for a \$2.4 billion capital investment with 250 jobs. He added that construction will begin in 2020, complete in 2023.

Mr. Heaton said that there will be a consolidated interim storage facility in New Mexico or Texas. He said that WIPP and Urenco have been great additions to the area's economy.

Ms. Suttora asked how many fuel rods fit into one cask. Mr. Heaton responded that there are around 3,600-7,000 rods in a cask. Ms. Kearfott asked how many casks will fill the capacity of this planned facility. Mr. Heaton responded that it will be approximately 10,000 casks, starting with 500 in the first phase. Mr. Runyon asked how many dry casks are sitting at facilities in the U.S. currently. Mr. Heaton estimated 4,000.

Mr. Jostes asked if the casks are terrorism-proof. Mr. Heaton said that the casks have been shot with rockets during testing and they have had no effect.

Ms. Kearfott asked what the demographics are of the anti-WIPP community. Mr. Heaton said that they are typically older citizens and the Navajo population.

Ms. Mustin thanked Mr. Heaton for his presentation.

### **Status of WIPP Permit Modification Requests**

Mr. Basabilvazo gave an overview of the WIPP regulatory framework, which is a non-linear highly integrated environment involving the EPA, New Mexico Environment Department (NMED), Nuclear Regulatory Commission, Department of Transportation, and DOE. He said that the Resource Conservation and Recovery Act describes WIPP as a hazardous waste management unit where waste is treated, stored and disposed of. This means that WIPP must follow certain environmental performance standards.

Mr. Basabilvazo discussed the content of the permit modification. He explained that Class 1 minor changes only require notification if they do not substantially alter permit conditions, while Class 2 technical changes require a 60-day public comment period. Class 3 permit modifications that substantially alter the facility and operations require heavy involvement of the NMED.

Mr. Runyon asked who determines the class of each modification. Mr. Basabilvazo responded that the NMED decides.

Mr. Basabilvazo listed a few of the recent permit modification requests, including a clarification of TRU volume of record reporting, a new shaft, new panels, and a 10-year permit renewal application. He mentioned that the Class 3 modification process takes approximately 18-24 months.

Mr. Runyon asked if the prohibited waste that was submitted in 2013 needs to be resubmitted. Mr. Basabilvazo responded that it was submitted as a classification in April of 2013 and it became a priority to DOE in December of 2017. This Class 3 permit modification is still in the queue for processing, but would need to be revised based on any changes over time. Mr. Runyon commented that he appreciated Mr. Basabilvazo giving this update because the EMAB worked on a related recommendation in the past.

Mr. Basabilvazo said that the Carlsbad Field Office funds NMED by providing supplemental fees. Three technical employees work on WIPP issues at NMED.

Mr. Jostes asked if outside interest can cause a modification to be bumped up in class. Mr. Basabilvazo responded yes, if the public comment period yields significant concern, NMED will decide to follow Class 3 procedures.

Mr. Borak commented that HQ is going to work on tracking recommendations that EMAB makes. He said that although it is not a FACA requirement, it is satisfying for the Board to see the status of efforts that they invested time into. Mr. Runyon commented that it is interesting to see which recommendations are accepted and how they are implemented.

Ms. Mustin complemented Mr. Basabilvazo on his clear presentation.

**Charge Discussion: “Build a Sustainable EM Organization with Skills to Ensure Readiness for Future Challenges”**

Ms. Mustin opened up the discussion of the first charge, stating that this is a time to lay out each subcommittee’s perspective of the charges and gain a good understanding of what is most useful to the Assistant Secretary and her team.

Ms. Johnson read the charge, which says that EM seeks the Board’s advice on how to improve the effectiveness of the EM organization to advance cleanup. This charge will be headed by the “Organization Subcommittee.”

Ms. Johnson said that there are questions associated with the EM organizational structure and its alignment with current and future missions. This includes if the current staffing is adequate enough to meet EM’s mission, and how DOE can improve the hiring process. She asked the Board to consider what options may exist to leverage resources across the EM portfolio and fill gaps.

Ms. Johnson said that the Subcommittee has already received a briefing from Paul Bosco, Associate Principal Deputy Assistant Secretary for Corporate Services, regarding IDIQ and end-state contracting. She said that it is necessary for the Board to have an understanding of the current structure and staffing before beginning to make any recommendations. She said that the Organization Subcommittee would like to interview key leadership at the sites and HQ to gain a better understanding of where there are gaps.

Ms. Johnson and Ms. Mustin put together a list of questions to ask during these interviews and asked the members for their input. Ms. Connell commented that sending these questions to the interviewees ahead of the interviews would make for a more effective use of time.

Ms. Mustin asked if EM has data for how many employees in each labor category are retirement eligible. Ms. Connell said that EM has identified a list of positions that they would like to fill based on retirements and open vacancies.

Ms. Mustin suggested that an outside party may be well qualified to make a recommendation based on this data. Ms. Connell said that the EMAB would be helpful in focusing this kind of analysis. She said that EM has considered getting outside help, but the cost is very high due to how broad the analysis would be.

Ms. Connell and Ms. Suttora suggested some potential interviewees, such as Deputy Assistant Secretary for Waste and Materials Management Mr. Mark Senderling and Deputy Assistant Secretary for Safety, Security and Quality Mr. Dae Chung.

Ms. Suttora elaborated on the work that Mr. Chung’s office is doing. A workforce analysis is underway to develop a matrixed organization to pull talent from areas where employees are not

utilizing 100% of their capacity to support other areas of the program, with regards to nuclear safety.

Mr. Lockhart suggested that as long as the Board is focused on making changes to the structure that will directly advance cleanup, it is not too tall of a task. He commented that the end-state contracting method is a disruptive change, but these big leaps are needed to produce results. Ms. Ramsey agreed, emphasizing the importance of utilizing the talent that already exists in EM.

Mr. Lockhart suggested that the \$0 technology development budget line item is significant. Ms. Connell said that technology development at HQ, while ideal, was not able to fit in given other priorities. She noted that this number will likely increase, but the program is very mature now and does not need the same large investment as it did in the past. Ms. Suttora said that much of the necessary technology development happens at the site level for site-specific needs.

Ms. Kearfott emphasized the importance of having a well-balanced workforce in terms of having scientific and policy backgrounds, and suggested rotating young employees from the sites to HQ to assist with retention.

Ms. Connell suggested that the Organization Subcommittee schedule interviews with the site managers and other staff that can provide a clear picture of the current staffing gaps.

Mr. Lockhart asked if there should be any consideration for the union and their processes. Ms. Connell said that the Human Capital office is aware of the perspective of the union and can answer any questions regarding Collective Bargaining Agreement constraints. Ms. Johnson suggested that the Subcommittee ask the sites what they would like to change about their relationship with the unions.

Mr. Fallon commented that a succession plan would be more useful than simply a list of those retiring. He said that understanding what decisions may not be made by those positions that are retiring is key to keeping cleanup moving. He said that a decision map would help design an organization that is based on decision-making, as EM is. He added that streamlining of oversight can help accelerate cleanup.

Ms. Suttora noted that Mr. Chung's office is trying to streamline the safety oversight to become more nimble.

Ms. Johnson read the questions that the Subcommittee drafted for interviewing the site managers, which include the following:

1. How well-equipped are you, from a capabilities perspective, to implement the end state contracting approach? What are your specific human resources gaps? What is your plan to utilize resources within DOE? Are your current contracting authorities sufficient?
2. What changes would you like to see made within the HQ organizational structure?
3. How would you recommend improving the alignment of mission and values between HQ and the field?



4. What roles and responsibilities between the field and HQ do you feel are unclear for grant management? Are there ways to reduce redundancy between HQ and the field?
5. What is your understanding of the Assistant Secretary's priorities? Are you organized to deliver them?
6. How well-equipped are you to implement accelerated closure activities?
7. Do you see areas where you can increase the use of subcontractors to accomplish new-term gains in accelerating cleanup?
8. How do you perceive the role of HQ oversight functioning, and is it effective? Should more ownership reside in the field?
9. Do you see technology as a barrier to accelerating cleanup?
10. Are you currently staffed to accelerate cleanup? Do you have a staffing plan? How would you change the plan to address accelerated cleanup? What skills and capabilities do you plan to hire?
11. What is your plan to deliver key federal functions in support of accelerated closure?
12. What is your plan to support the cultural change related to the end state contracting approach? What support do you need from HQ for this effort?
13. What worries you most about implementation of end state contracting?

Ms. Johnson added that these will be phone interviews and the responses will not be specifically attributed.

Ms. Connell noted that there have been many positions approved for the field based on STEM initiatives over the past several months. Mr. Trischman added that the federal hiring process takes a very long time, and often the rate of attrition outpaces it, which is a challenge due to the aging workforce.

Mr. Fallon emphasized the importance of making sure the interviewees understand that each of these questions are being asked with the goal of advancing cleanup.

Ms. Mustin planned for the Subcommittee to start with this list of standard interview questions and provide them to the interviewees before scheduling the interviews. She stressed that this will need to take place very soon to meet the deadline for the Subcommittee's deliverable.

Ms. Johnson and Ms. Mustin planned to have Subcommittee calls every two weeks to tag up with the group and HQ staff.

The group decided that they would edit these draft interview questions and produce a final version the following week.

### **Charge Discussion: "Accelerate Cleanup Completion and Closure across the EM Complex by Facilitating Workforce/Community Engagement and Transition"**

Ms. Wilson introduced herself as co-chair of the Transition Subcommittee, alongside Mr. David Abelson, who could not be present during the meeting. Ms. Wilson described the charge to the Transition Subcommittee. As EM looks to close additional sites and complete cleanups at sites

with ongoing missions, EM seeks advice on alternative methods and approaches that can be used to assist or ease the economic impacts to workers and communities. As part of its evaluation, EMAB will investigate and identify success factors that could be applied to today's opportunities and challenges.

Ms. Wilson listed the proposed lines of inquiry for the charge as follows:

1. Establish opportunities to partner with state and local governments, local chambers of commerce, economic development organizations, and community members – Led by Ms. Diahann Howard
2. Obtain state/local government and workers support for completing the cleanup mission – Led by Ms. Jane Hedges
3. Identify and advance economic development efforts and facilitate future use planning – Led by Mr. Elliott Laws
4. Design and implement worker transition programs, including reemployment assistance – Led by Ms. Shelly Wilson
5. Foster a cultural change from production to cleanup – Led by Mr. Frazer Lockhart
6. Engage in meaningful discussion and develop productive relationship with the labor unions – Led by Mr. Randall Jostes
7. Recognize and understand past efforts, OMB and Congressional direction on the topic – Led by Mr. David Abelson

Ms. Wilson said that each lead will research the historical precedence and inject new ideas to create their highest recommendation for each area. She said that EM has asked for a roadmap of the EMAB's recommended best path forward, rather than many options in each area. She noted that each EMAB member has unique experiences to draw from both inside and outside of DOE.

Ms. Wilson said that the Subcommittee will need assistance obtaining resources regarding lessons learned in places like Rocky Flats, Mound, Fernald, and Weldon Springs. She mentioned that the Department of Defense's Office of Economic Adjustment deals with this issue and may be able to offer some insight. This office is integral for Base Realignment and Closure (BRAC) or mission changes.

Ms. Johnson said that she has documents of the closure plans and lessons learned from the River Corridor that she can share with the group. This document includes staffing plans and strategies for assisting employees with job searching post-closure. Ms. Howard shared that this plan was also the first time that the community saw the long-term future use of this area, which made the community feel hopeful.

Ms. Wilson said that the Subcommittee plans to set up conference calls with subject matter experts to learn from past experiences. HQ staff will assist with scheduling these meetings.

Mr. Lockhart asked if non-members of EMAB can be a subcommittee member. Mr. Borak said yes, but they will not be reimbursed for expenses.

Ms. Suttora suggested that Mr. John Sattler and Mr. Steve McCracken (retired Fernald and Weldon Springs leadership, respectively) may be able to add value to this discussion.

Mr. Lockhart suggested help from Len Martinez, whose team created a plan for migrating employees by working with the Chamber of Commerce and the union at Rocky Flats.

Mr. Jostes reminded of the Worker Adjustment and Retraining Notification Act that has caused many corporations to retrain employees.

Mr. Lockhart said that BRAC likely has some of the best examples for returning property to beneficial use. Ms. Suttora agreed. Mr. Lockhart noted that BRAC sites are federally mandated to be returned to the local government, whereas DOE is the owner of the land until action is taken to initiate a transfer.

Ms. Howard said that the Richland City Hall has annual plans of different EM sites from the 1990's that she can share. She said that almost each plan begins with a clear land plan, which is important for the community to understand first. Ms. Wilson said that this is a good opportunity to incorporate this point into the Subcommittee's report. She said that they should acknowledge that the community is not always brought to the table as a whole -- typically it is only a few representative members.

Ms. Wilson said that it is important for the community to have a say in what they would like to see happen to the land, if it is within the realm of possibility.

Mr. Jostes said that when his company was looking to redevelop a former coal power plant in Michigan, the community wanted a town center. He said that this plan was successful because the community knew what they needed. He noted that without the community input, the land is more obviously useful for industrial rail, but the community was in favor of a town center, and therefore the officials became in favor of this, too. He said that the charrette process of brainstorming with the community was very helpful. During this process, he informed the community of what is possible given the environmental constraints.

Mr. Jostes suggested leasing the land to the local governments rather than turning it over – to save time – as the next best thing. Ms. Howard said this is still a painful process to put private industry on DOE land. She noted that this may work in some communities better than others.

Ms. Howard stressed the importance of having all stakeholders at the table to create a unified community plan that will honor tribal and community interests. Ms. Kearfott noted that diversity of land use is important for a community to thrive long-term.

Mr. Trischman offered contact information for Jim Antizzo to discuss potentially reigniting the idea of energy parks at closed sites.

Mr. Jostes asked who deals with labor relations in DOE. Ms. Suttora said that the staff can get him in touch with DOE's labor relations office.

Ms. Johnson asked if the Subcommittee plans to focus on near-term potential cleanup sites as pilots. Mr. Lockhart appreciated this logic, and suggested focusing in on ways to eliminate major barriers.

Ms. Suttora said that none of the near-term sites have a tribal component, and she would like recommendations on how to engage separately from other stakeholders. Ms. Howard agreed, stating that tribes need to be at the table. Ms. Suttora said that a community communications framework for the sites would help field managers and their staff become more comfortable with the public.

Mr. Jostes asked what DOE's historic position on public and private partnerships is. Ms. Suttora responded that this typically does not happen in reality. Mr. Lockhart said that some pieces such as energy research have been able to successfully partner. He also said that when dealing with nuclear security, it becomes harder to have such partnerships due to the inherently federal nature. Mr. Jostes said that a solution will take outside capital. He acknowledged the challenge of DOE's inability to sell or lease the land, but still find a private developer. Ms. Suttora said that there are redevelopment organizations at each site that are funded to help find future use for the non-contaminated equipment as well as the land. She acknowledged that this process is currently not working with the community as effectively as possible and could use improvement.

Ms. Howard said that the land transfer to the local government happens first, then the private sector developers are recruited. She said that in her experience, communities take on the burden of finding private investments for future use.

Ms. Wilson suggested that the group schedule conference calls to hear from Mr. Abelson and Mr. Lockhart regarding lessons learned at Rocky Flats and Mr. Jostes regarding charrette processes.

Ms. Suttora recommended looking on the Energy Facility Contractors Group webpage for D&D lessons learned. Ms. Howard asked how the Subcommittee can share documents with each other. The DOE staff present was tasked with finding a solution.

Ms. Wilson proposed that the Subcommittee should continue to check in with DOE to make sure the work is still on the right track.

## **Board Business**

Mr. Borak thanked the Board for a productive discussion. He reminded the members to fill out their financial disclosure forms and mail to Ms. Melinda Comfort at DOE HQ. He said that an ethics briefing will be scheduled soon to fulfill the 2019 requirement. This will be held via telephone.

Mr. Borak also asked the members if they would like to nominate anyone to become a member of EMAB, to please send him their names.

Mr. Jared Bierbach of DOE-EM staff clarified that the next meeting will not be held concurrently with the National Cleanup Workshop this year. He said that the next meeting will likely be held at one of EM's field sites, but the details have not yet been solidified.

Ms. Howard made a motion to approve the minutes from the previous EMAB meeting on December 11, 2018. Mr. Lockhart seconded the motion.

Mr. Borak reminded the members to fill out the evaluation forms to give the DOE staff any feedback from this meeting.

### **Public Comment**

Mr. Norbert Rempe, a geologist and former WIPP employee of 23 years, introduced himself and began discussing radiological protection standards. He expressed the opinion that DOE's internal regulations and radiation standards are overly cautious compared to international standards, and may be wasting money. He suggested that there are more deaths from oil field traffic than from radiation-related causes in the area.

Ms. Kearfott thanked Mr. Rempe for his comment. She asked if he is familiar with Hormesis vs. Linear No-threshold and the reanalysis of Otto Raabe's David Beagle Study. He responded yes. He said that based on the evidence that he has seen, humans on Earth have lived in areas with a higher magnitude of radiation and yet have longer life expectancies.

Ms. Mustin thanked Mr. Rempe for his comments.

Ms. Ramsey and Ms. Mustin adjourned the meeting at 4:15 PM MT.