ENVIRONMENTAL MANAGEMENT SITE-SPECIFIC ADVISORY BOARD

U.S. DEPARTMENT OF ENERGY

PUBLIC MEETING MINUTES

March 21-22, 2023

U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

LIST OF ACRONYMS

AMC - Advanced Manufacturing Collaborative
CAB – Citizens Advisory Board
D&D – Deactivation & Decommissioning
DDFO – Deputy Designated Federal Officer
DOE – U.S. Department of Energy
EM – (DOE) Office of Environmental Management
EM SSAB – Environmental Management Site-Specific Advisory
EMNLN- Environmental Management National Laboratory Network
EPA- Environmental Protection Agency
EM-LA – (DOE) Environmental Management Los Alamos Field Office
FACA – Federal Advisory Committee Act
FY – Fiscal Year
FFRDC - Federally Funded Research and Development Centers
FIU - Florida International University
Hanford – (DOE) Hanford Site
HAB – Hanford Advisory Board
HLW – High-Level Waste
HQ – Headquarters
ICP CAB – Idaho Cleanup Project Citizens Advisory Board
IDEQ - Idaho Department of Environmental Quality
ICET - Institute for Clean Energy Technology
ISA – Idaho Settlement Agreement
IWTU – Integrated Waste Treatment Unit
LM- Legacy Management
MSIPP – Minority Serving Institutions Partnership Program
MSU - Mississippi State University
NDA - Nuclear Decommissioning Authority
NE – (DOE) Office of Nuclear Energy
NSSAB – Nevada Site-Specific Advisory Board
NNMCAB – Northern New Mexico Citizens' Advisory Board
NNSA – National Nuclear Security Administration
NNSS – (DOE) Nevada National Security Site
OMB – The Office of Management and Budget
OREM – (DOE) Oak Ridge Office of Environmental Management
ORNL – Oak Ridge National Laboratory
ORSSAB – Oak Ridge Site-Specific Advisory Board
Paducah CAB – Paducah Citizens Advisory Board
Portsmouth – (DOE) Portsmouth Site
PORTS SSAB – Portsmouth Site-Specific Advisory Board

PPPO –Portsmouth/Paducah Project Office
RH- TRU – Remote-handled Transuranic Waste
SRS – (DOE) Savannah River Site
SRS CAB – Savannah River Site Citizens Advisory Board
SSAB – Site-Specific Advisory Board
STEM – Science, Technology, Engineering, and Mathematics
TRU – Transuranic Waste
TD – Technology Development
WIPP – Waste Isolation Pilot Plant

PARTICIPANTS

Hanford Advisory Board: **Susan Coleman**, Chair; **Miya Burke**, Vice-Chair; **Lindsay Somers**, Deputy Designated Federal Officer**; Carrie Meyer**, Staff

Idaho Cleanup Project Citizens Advisory Board: **Deborah Farber**, Board Member; **Robert Skinner**, Vice-Chair; **Connie Flohr**, Deputy Designated Federal Officer; **Kelly Green**, Staff; **Mariah Porter** Staff

Nevada Site-Specific Advisory Board: **Mark H. Hilton**, Vice-Chair; **Eddie Williams**, Member; **Kevin Knapp**, Staff; **Barb Ulmer**, Staff

Northern New Mexico Citizens' Advisory Board: **Mark Hayden**, Member; **Bridget Maestas**, Staff

Oak Ridge Site-Specific Advisory Board: **Leon Shields**, Chair; **Amy Jones**, Vice-Chair; **Melyssa Noe**, Deputy Designated Federal Officer; **Sara McManamy-Johnson,** Staff; **Shelly Kimel**, Staff

Paducah Citizens Advisory Board: **Don Barger**, Chair; **Frances Johnson**, Vice-Chair; **Eric Roberts;** Meeting Facilitator; **Jennifer Woodard**, Deputy Designated Federal Officer; **Robert "Buz" Smith**, Federal Coordinator; **Zachary Boyarski**, Staff; **Hayly Wiggins**, Staff

Portsmouth Site-Specific Advisory Board: **Jody Crabtree**, Chair; **Herman Potter**, Vice-Chair; **Greg Simonton,** Federal Coordinator; **Julie Galloway**, Staff; **Charles Love**, Staff

Savannah River Site Citizens Advisory Board: **Gregg Murray**, Chair; **Phyllis Britt,** Acting Vice-Chair; **Amy Boyette**, Deputy Designated Federal Officer; **James Tanner**, Staff; **Heather McWilliams,** Staff

Members of the Public: **Steven Vitto**, **Kelsey Shank**, The EDGE LLC; **Wayne Barber**, Weapons Complex Monitor; **Timothy Smith**, Governmental Strategies; **Ruth Nicholson**, HAB staff; **Michael Adkison**, Moab, Utah resident; **Frank Bonesteel**, Former NSSAB Chairs

DOE Headquarters:
U.S. Department of Energy Participants:

William "Ike" White, Senior Advisor for Environmental Management; **Jeff Avery,** DOE EM Principal Deputy Assistant Secretary; **Nicole Nelson-Jean,** DOE EM Associate Principal Deputy Assistant Secretary for Field Operations; **Ming Zhu,** DOE EM Senior Advisor for Laboratory Policy; **Jennifer Kramb**, Intergovernmental and External Affairs Specialist Office of the Intergovernmental & External Affairs; **Kristen Ellis**, DOE EM Director of Regulatory, Intergovernmental and Stakeholder Engagement; **Joceline Nahigian**, DOE EM Office Director for Intergovernmental and Stakeholder Programs; **Steve Trischman,** DOE EM Director of Budget and Planning; **Kelly Snyder**, EM SSAB Designated Federal Officer; **Alyssa Petit**, DOE EM Office of Intergovernmental and Stakeholder Programs; **Michelle Hudson**, DOE EM Office of Intergovernmental and Stakeholder Programs; **Virona Mehta**, Contractor Staff, Office of the Intergovernmental and Stakeholders Programs; **Ben Rivera**, DOE EM Office of Intergovernmental and Stakeholder Programs; **Ana Han**, DOE EM Office of Intergovernmental and Stakeholder

Programs; **Leisa Pope**, DOE EM Office of Intergovernmental and Stakeholder Programs; **Demitrous Blount**, DOE EM Office of Intergovernmental and Stakeholder Programs, **John Moon**, DOE EM Office of Budget and Planning; **Chris Crowley**, DOE EM Office of Budget and Planning

MEETING MINUTES

The U.S. Department of Energy's (DOE) Environmental Management Site-Specific Advisory Board (EM SSAB) Chairs meeting was held in Washington, District of Columbia and virtually via Zoom. Participants included EM SSAB leadership and support staff, EM Headquarters (HQ) leadership and staff, and the public. The meeting was open to the public and conducted in accordance with the requirements of the Federal Advisory Committee Act (FACA).

Recordings of this meeting can be viewed on YouTube at the following link:

Spring 2023 EM Site-Specific Advisory Board Chairs Meeting - YouTube (https://www.youtube.com/watch?v=-DmLOQt8Y7I)

Tuesday, March 21, 2023

Day 1

Opening Remarks

Mr. Eric Roberts, contractor support for the Portsmouth/Paducah Project Office (PPPO) and meeting facilitator, welcomed attendees and reviewed the ground rules and logistics of the meeting. All meeting participants introduced themselves.

Mr. Roberts introduced Senior Advisor for Environmental Management, Mr. William "Ike" White. Mr. White thanked the EM SSAB Chairs and Vice Chairs for volunteering their time and effort to make the EM program successful. He added the communities and EM have shared priorities. He mentioned how important it is to have alignment between EM and all its stakeholders for the success of the environment cleanup programs. He said the EM SSAB provides invaluable feedback from EM's communities that helps to shape the future of the program.

Mr. White introduced EM's Principal Deputy Assistant Secretary Mr. Jeff Avery. Mr. Avery welcomed the board members and said he appreciated the opportunity to discuss the EM Program with the board members. He remarked EM is progressing significantly, including at the sites the EM SSAB members represent. He highlighted Oak Ridge's land transfers contribute to future National Nuclear Security Administration (NNSA) missions, and EM's investment in the future of the workforce with the Minority Serving Institutions Partnership Program (MSIPP). He said these programs are vital to the communities and having the EM SSAB's input is important for achieving their goals together. He highlighted EM's investment in research and development (R&D) programs for analyzing disposal options.

Mr. Avery discussed EM's 2023 mission and priorities documents. He reviewed the achievements from 2022 and future goals for each site.

Last year, Los Alamos exceeded legacy waste shipment goals by over 70% and this year, they are initiating actions to support the retrieval of drums from Waste Control Specialists ensuring no backlogs of shipments from Los Alamos. In 2022, Hanford began treating tank waste through the tank side cesium removal system. This year, they plan to treat more than two billion gallons

of groundwater to remove contamination.

Mr. Avery remarked last year at the Savannah River Site (SRS), EM treated more tank waste than ever before and initiated the Advanced Manufacturing Collaborative (AMC) construction project. This year, their goal is to complete Saltstone Disposal Unit 8 and the steel structure for the AMC and finish the Environment Assessment (EA) to support contaminated process equipment.

Mr. Avery said last year, Idaho completed varied waste retrieval projects 18 months ahead of schedule and this year their goal is to process 100 canisters of waste at the Integrated Waste Treatment Unit (IWTU) and complete the spent nuclear fuel transfer project from wet storage to dry storage. He said he and Mr. White will be traveling to Idaho to acknowledge these milestones.

Mr. Avery said in Oak Ridge, they completed transfer of the Biology Complex land to NNSA and finished the first demolition of a nuclear reactor at Oak Ridge National Laboratory. He said this year their goal is to prepare the site for the land-based disposal facility and conduct demolition activities for the low intensity test reactor.

Mr. Avery said at Portsmouth, they completed a very large Deactivation and Decommissioning (D&D) project involving X-326 Process Building and this year, we worked to award the D&D contract which is focused on the end-state contracting model.

Mr. Avery said last year at Paducah, they completed processing of one million pounds of refrigerant and another million is the target for this year. He said last year in Nevada, EM prepared for the demolition of Test Cell C and the Engine Maintenance, Assembly, and Disassembly (EMAD) facilities, and this year they will demolish four of the Test Cell C buildings.

Mr. Avery discussed EM's strategic vision document, which is a tool to outline the intermediate-term vision and provide a roadmap for achieving key priorities and opportunities for the future. He mentioned after receiving EM SSAB and other stakeholder input, the updated version of the strategic vision document will be made available to the public. He also mentioned the EM Program Plan, which is a long-term planning baseline that includes strategies to complete mission areas and ideas to accelerate work in a safe, timely manner. He acknowledged that EM is working to strengthen engagement with stakeholders and Tribes across the country. He said they are working to improve the EM SSAB membership, recruitment, and approval processes. He emphasized the importance of the boards reflecting the communities they are in to provide diverse perspectives.

Mr. Avery added EM has significantly ramped up engagement at Los Alamos, where EM is piloting a Justice40 program. He discussed the potential for joint engagement with NNSA at SRS. He stated they are approaching the SRS landlord transition with a long-term outlook for the site and the community.

Mr. Avery said EM is engaging with Congress and discussed Mr. White's attendance at the cleanup caucus. From the budget perspective, he mentioned a budget guidance document was provided to the sites outlining how each site should involve stakeholders in the Fiscal Year (FY)

2025 budget prioritization process.

Mr. Roberts thanked Mr. Avery and Mr. White for their remarks and opened the floor for questions.

Mr. Mark Hayden from the Northern New Mexico Citizens Advisory Board (NNMCAB) asked what the best ground water modeling program is and if it is available to all sites? Mr. White responded there are several options for modeling and DOE laboratories have some of the best capabilities in the world. He said the best model will vary in each situation. Mr. Avery said many different models are being used to support groundwater efforts across the EM program.

Mr. Bob Skinner from the Idaho Cleanup Project Citizens Advisory Board (ICP CAB) asked who makes decisions about spent fuel. Mr. White responded that EM's colleagues in the DOE Office of Nuclear Energy (NE) are responsible for waste disposal at the spent fuel site and can provide more specific information. At Idaho, the EM naval reactor team is looking specifically at spent fuel inventory to work on an integrated approach. Mr. Avery said NE is working to initiate dialogues and options for the future with a consent-based siting approach.

Mr. Gregg Murry, Chair of the Savannah River Site Citizens Advisory Board (SRS CAB) asked what the most surprising things Mr. White has learned when talking to communities. Mr. White said he likes hearing about the communities' cleanup priorities. He shared that understanding each of the sites risks and their priorities help him think about the importance of the community's priority. Mr. Avery said he is excited to hear the enthusiasm within the communities for both the cleanup program and clean energy opportunities of the future.

Mr. Herman Potter from the Portsmouth site asked what some of the barriers are interfacing with agencies and offices within DOE on issues such as re-industrialization. Mr. White answered that collaborating on many different work scopes requires a lot of focus and attention from all the program offices. He said there are some workforce challenges to retain employees who are experts in their area. He said we are changing things in terms to getting the right people for the right job.

Ms. Susan Coleman from Hanford asked: What is New Mexico's stance on shipping transuranic waste? Do you have any insight? Mr. White said without the disposal capability, you don't have an entire cleanup program. He said we are working with New Mexico to ensure we have transuranic waste disposal capabilities. We are focused on that and will continue to work on this issue with states.

Mr. Mark Hayden from the NNMCAB asked Mr. White to provide some examples of a successful hydro wall in a cleanup approach. Mr. White said the afternoon session on technology development might provide insight on that question.

Mr. Don Barger, Paducah CAB Chair, asked how EM HQ balances site-specific goals with cross-complex goals. Mr. White said they are constantly working on how to prioritize getting the maximum amount of work done. He said the EM Strategic Vision document provides insight on prioritizations.

Chairs Round Robin

Northern New Mexico Citizens Advisory Board (NNMCAB)

Mr. Mark Hayden, member of the NNMCAB highlighted the development of annual work plans. He said members received updates on the Justice40 pilot initiative from the site manager. He said the board members meet bi-monthly, and meetings get streamed live on YouTube. He remarked the NNMCAB has a new public website being developed. He said they recently resumed their site tours at Los Alamos and another tour is scheduled for this fall at WIPP (Waste Isolation Pilot Plant).

Mr. Hayden expressed his concern about the long appointment process for NNMCAB membership since it is difficult to find new members and the length of time to appoint makes it even more challenging. He further shared that college students and high school graduates are especially difficult to recruit because of the timing. He indicated that the NNMCAB will continue to meet in hybrid form due to the prevalence of COVID-19, influenza, and other viruses.

Oak Ridge Site-Specific Advisory Board (ORSSAB)

Mr. Leon Shields, Chair of the ORSSAB, highlighted some of the hot topics for the board, such as ensuring waste disposal capacity to support future cleanup activities at Oak Ridge National Laboratory (ORNL) and the Y-12 National Security Complex (Y-12), and the risk reduction activities at excess facilities. He discussed future groundwater remediation activities. He expressed his concern about the engagement of members and outreach activities. He also discussed the transfer of the biology complex and mercury treatment facility they are currently building.

Mr. Shields shared a primary goal of the board is to facilitate decision-making regarding future soil remediation and groundwater activities at the East Tennessee Technology Park. He mentioned they are trying to increase the visibility and outreach of the board to attract new members.

Savannah River Site Citizens Advisory Board (SRS CAB)

Mr. Gregg Murry, Chair of the SRS CAB, discussed current issues, including the landlord transition from EM to NNSA, which is expected to be completed by 2025. He said they are wondering if visibility of the site will decrease after the transition to NNSA because of their security requirements.

Mr. Murray raised concerns about member retention and the recruitment process. He said they lost about 50% of their membership annually. He expressed his concerns on some of the issues regarding the membership retention. He voiced concerns about the length of meetings and how difficult it is for members to attend. He reported they started conducting a survey after the meetings to receive feedback on the presentations. In addition, they obtained members' opinions on the meetings so they could determine whether the meetings were useful.

Portsmouth Site-Specific Advisory Board (PORTS SSAB)

Mr. Jody Crabtree, Chair of the PORTS SSAB, shared they feel supportive and proud of the successful X-326 Process Building demolition. He said it is a major success for DOE and the

community. During the demolition, over 850,000 miners worked without lost time. Workers downsized and loaded 108,000 cubic yards of building debris, excavated over 345,000 cubic yards of soils, transported 40,000 truckloads of debris and soil to the on-site waste disposal facility, and traveled over 125,000 miles with zero traffic accidents. In calendar year 2022, 150,000 cubic meters of reclaimed debris and 2.6 million square feet of buildings were demolished. He said with this success, the skyline changed, and the focus has been on the end state of the site.

Hanford Advisory Board (HAB)

Ms. Susan Coleman, Chair of the HAB, remarked the last year has been positive and busy post-pandemic. She said they held successful hybrid meetings and began to consider evening meetings to increase participation. She anticipates DOE representatives, and the site manager will join their meetings and provide an update on the site. She said they instituted a brand-new orientation program for all the new members. She stated many new members had the opportunity to meet with existing member's in-person to build relationships and visit the site. She said their board operates not only under the Federal Advisory Committee Act (FACA), but they have a Memorandum of Understanding (MOU) between the Tri-Party Agreement agencies that pre-dates FACA and is between the (DOE) the (EPA) and the Washington State of Department of Ecology. She added a strong working relationship with all three organizations is a success for them.

Ms. Coleman shared their challenges with the lengthy approval of the membership packages, causing the board to be unable to elect leadership until the first board meeting. She mentioned there have been limits on the information that DOE shares due to the sensitivity of a permanent disposal site.

Ms. Coleman said that in 2023, the HAB is updating their guiding documents and attempting to realign the roles and responsibilities of subcommittees. She mentioned enhancing engagement between DOE, board members, and the public.

Paducah Citizens Advisory Board (Paducah CAB)

Mr. Don Barger, Chair of the Paducah CAB, said the site has been working to remove R-114 refrigerant, commonly known as Freon. Paducah absorbed inventories from both Portsmouth and Oak Ridge over the years and has a remaining eight million pounds. He said they have been able to dispose of 3.8 million lbs. of R-114 where it is shipped to Port Arthur, Texas, for incineration, and this is the limit the facility can handle. He said they are focusing on both environmental protection and worker safety at the plant. He said the board advocates for continued funding to complete the removal of this gas, which is a threat to the environment and workers at the site.

Idaho Cleanup Project Citizens Advisory Board (ICP CAB)

Robert Skinner, Vice Chair of the ICP CAB, said their priority is to protect the Snake River aquifer under the facility. He discussed the importance of this water for the community. He noted another priority is to oversee the safe startup of the Integrated Waste Treatment Unit (IWTU). He also discussed the recent treatment of 23,000 gallons of liquid simulant and the emission testing required to begin operations in FY 2023.

Mr. Skinner said membership recruitment is an ongoing issue. He mentioned many board members

live up to 80 miles away from the site, so in-person participation can be restricted. For the time being, they have decided to meet virtually. He said their goal is to urge timely decision making and funding to support activities related to spent nuclear fuel repackaging and cesium removal.

Mr. Skinner encouraged the development of a plan to establish certainty on the identification, funding, and opening of a long-term high-level waste repository. He said they continue to meet the targets for TRU certification and shipments to WIPP. He shared the site completed transfer of stored spent nuclear fuel (SNF) from wet to dry storage this month, completing a 1995 Idaho Settlement Agreement milestone 18 months ahead of schedule. He said DOE, in consultation with the Idaho Department of Environmental Quality and EPA will remove the submarine 1st Generation Westinghouse (s1W) and Aircraft Carrier 1st Generation Westinghouse (A1W), naval nuclear propulsion plant prototypes, under a non-time-critical removal action under the Comprehensive Environmental Response, Compensation, and Liability Act.

Mr. White suggested it may be helpful to invite Office of the Nuclear Energy colleagues to discuss their roles and responsibilities to raise awareness among members.

Nevada Site Specific Advisory Board (NSSAB)

Mr. Mark Hilton, Vice Chair of the NSSAB, said they began rotating their meeting locations to different areas of the state. He said they held an open house to discuss groundwater issues in a small community in the Northwest part of the Las Vegas Valley. He said approximately 80 people attended the open house and he was happy to see community interest.

Mr. Hilton emphasized the importance of community gathering and awareness of EM's mission. He discussed DOE's partnership with the Atomic Testing Museum. He said last year, DOE opened a special exhibition about the operations of the site. He said luckily, they had no problem recruiting new members to the board. He said they currently have 17 members who are involved and enthusiastic.

Mr. Hilton said the board has a great relationship with DOE, the Nevada Department of Environmental Protection, the Nevada Department of Conservation and National Resources, and the county governments. He discussed the successful efforts they had to re-vegetate areas of the site.

Mr. White encouraged members to think about what would help community members get involved.

Mr. Avery thanked everyone for their time and for sharing their thoughts. He acknowledged the challenges for members in the recruitment and retention process and assured them that EM works to make the process go as smoothly as possible on HQ's end.

EM Budget Update

Mr. Roberts introduced Steve Trischman, Director of EM's Office of Budget & Planning. He began his presentation by reviewing a map of EM's progress at 15 sites in 11 states. Since EM's inception, the footprint has reduced by 90%.

Mr. Trischman reviewed the budget trend and said over the years it has been steadily rising. He said most of the funding is for the defense cleanup program and non-defense cleanup receives funding

(sites like Moab, West Valley, and Energy Technology Engineering Center). He mentioned the largest amount of funds are spent on tank waste. He stated they are making investments in the construction of the Waste Treatment Plant. He said approximately 7% of the budget is spent on spent fuel and nuclear materials.

Mr. Trischman presented site-by-site highlights from the FY 2024 budget that are detailed in his slides.

Mr. Trischman provided instructions for a budget activity to the group. The meeting attendees split into small groups and participated in a simulation of the budget cycle to illustrate DOE's decision-making process.

The group shared the initial takeaways from the budget activity. Mr. Mark Hayden said it was a good experience to learn how the budget is developed and how the process involves cooperation from other groups. Mr. Bob Skinner indicated site size is important for budget allocation at sites. Mr. Don Barger said he liked the realism of the implications of borrowing money. Mrs. Connie Flohr provided the group with a detailed overview of the budget approval and decision-making process.

Mr. Mark Hayden asked what payment lieu of taxes is, a community capacity building program is, and were there any savings from a COVID slowdown that could be added somewhere else. Mr. Trischman responded payment of lieu taxes is the Atomic Energy Commissions and had the authority to their communities where they took the land from an existing industrialization to pay those communities. Mr. Steve Trischman referred to the community capacity building session where the group can get more information on the program. There were no savings because of a downturn during the COVID-19 pandemic. He said they would not take the risk and provided details on the issues of safety and skilled labor.

Minority Serving Institutions Partnership Program

Ms. Nicole Nelson-Jean, Associate Principal Deputy Assistant Secretary of Field Operations, presented the details of the EM MSIPP program. She said the MSIPP has been in place since 2014 to promote the education and development of the next generation workforce.

Ms. Nelson-Jean continued that having minority-serving institutions work with DOE can help shape the future of DOE sites. She said EM works together with Historically Black Colleges and Universities, institutions serving Hispanics or Asian Americans, and Tribal colleges. She said there are 30 accredited Tribal colleges in the United States.

Ms. Nelson-Jean then spoke about the competitive research awards program, which is a contract with schools to focus on research and technology. She discussed an internship program for first-year students who want to work with a specific laboratory or location. She said EM holds educational workshops to create opportunities for students. She expressed universities and institutions are interested in contracts rather than grants. She said they were able to meet the variability in demands from universities, such as curriculum development, technology support, lab funding, and equipment purchases to support their mission and activities.

Ms. Nelson-Jean discussed DOE's partnership with the U.S. Department of Defense to discuss ideas and opportunities to respond to students' needs. She mentioned federal vacancies they are trying to fill by providing support throughout the student's educational journey. She said they have about 30 students in their internship program, and 19 environmental science programs. She said in 2022 they received a $50 million increase in funding. They granted 32 new awards for universities and gained 62 interns through their program to work in labs. She said they were able to bring 40 students to SRS as part of their post-doctoral program. She said there is a LinkedIn page where students can communicate with each other and knowledge share.

Ms. Debbie Farber asked how you engage your success and what kind of metrics they are planning to track. Ms. Nelson-Jean responded that each of their grants are specific to the schools, so metrics are built into the system with the grants and their cooperative research. She said it depends on the schools and their curricula in different areas.

Mr. Mark Hayden asked if there is a way to recruit students for the advisory boards from the pool of students. Kelly Snyder stated local sites try to recruit students and how staff from each local board share lessons learned.

Community Capacity Building Program

Ms. Kristen Ellis, the Director of Regulatory, Intergovernmental and Stakeholder Engagement, provided a brief background of her scope. She thanked the EM SSAB for volunteering their time. She provided an overview of the FY 2023 budget request. She said the Community Capacity Building Program will provide resources to areas that may not be benefit from the economic activity generated by the EM. She said the program is designed to improve operations in response to what they hear from the community based on their needs. She discussed the plan for the program to include site reindustrialization, community involvement and investment, community restoration projects, infrastructure projects, tribal nations, or impacted communities' educational capacity building for participation in EM decision-making.

Ms. Ellis said there are similar programs at other federal agencies to learn from. She said DOE's Office of Legacy Management (LM) has administered environmental justice grants for many years, and they are sharing information. She noted EPA is in the process of setting up technical assistance centers in communities which will provide resources for community members to access federal grants. She said EM will have listening sessions with various stakeholder groups, communities, and tribes. She said they are working on finalizing the selection criteria and federal procurement details prior to publishing a funding opportunity announcement.

Mr. Gregg Murray asked if there are factsheets or websites the site can use to share information about this program with the board. Ms. Ellis responded they do not have anything yet, but the Department will share more information when it's available.

Mr. Mark Hayden asked if the EPA could partner with the DOE in a local office to allow for more community access and outreach. Ms. Ellis stated the EPA is familiar with sub-regions and other activities in the New Mexico region. She said they do a lot of outreaches with the local and regional levels of the EPA. Mr. Hayden also asked if she had ever heard of combining low-cost housing needs with a hydrogen energy source test pilot project symbol. Ms. Ellis said they recently released their first set of funding on hydrogen hub so there will be an additional information on how this related to

housing with the accurate sources. She then referred to the interface between federal agencies and the Department of Transportation.

Mr. Leon Shield asked a question about poverty stripping, and Ms. Ellis responded by talking about the various tools that exist to define it and gave details with the examples.

Mr. Mark H. Hilton asked about the primary mode of communication to make those communities aware of the program. Ms. Ellis stated they would like to be as inclusive as possible and discussed their plan and sources of the communication to make the community aware of this program.

Ms. Ellis introduced Mr. Erik Olds, EM's Director of Communications, who has extensive experience and is an expert in this field. Ms. Ellis began the conversation by discussing joint activities among stakeholders. She referenced the content and briefings on the EM program to make it more accessible. She discussed some of the challenges and possibilities that flow from standards. Mr. Olds mentioned some of the current products. He indicated the feedback provided by Board members was valuable. He talked about the annual review, the report cards, scorecards, fact sheets, information sessions and other kinds of communication materials they promote. The list of priorities was discussed over the course of the year. He mentioned the program planning documents are very helpful and how they carry out the work on the site. He mentioned the EM weekly newsletter is distributed to almost 100,000 people with the content from the sites.

Ms. Debbie Farber asked about possible documents or concise slides which represent the relationship between CAB and EM. Ms. Snyder answered by providing details of available documents such as the fact sheet, bylaws, DOE manual and DOE charters that describe the responsibilities and relationships between EM and the local boards.

The group worked on a new recommendation letter asking DOE to provide clear and publicly accessible information regarding the status and implementation of EM SSAB recommendations over the past five years. Ms. Snyder confirmed the final draft would be distributed to the local boards for review and approval. After input was received from each site, it would be transmitted to DOE as a formal recommendation.

EM's International Program

Ms. Ana Han and Mr. Ben Rivera from the Office of the Intergovernmental and Stakeholder Programs introduced themselves and provided a brief overview of EM's International Program. Ms. Han said EM has fostered international collaboration for almost 20 years and achieved tremendous success by working collaboratively to identify solutions for cleanup challenges.

Ms. Han discussed how EM partners with other countries on the global cleanup mission. She said formal bilateral and multilateral agreements are in place to encourage collaboration. She said they are also holding many workshops to support EM leaders' engagement with their foreign counterparts. She said they manage all aspects of international travel for staff at headquarters and in the field. She talked about other countries interested in learning how to do business, contracts, technological development and stakeholder engagement.

Mr. Rivera said the United Kingdom's collaboration is one of the strongest in terms of EM's international engagement strategy. He talked about the longstanding relationship with the United

Kingdom's Nuclear Decommissioning Authority (NDA) and the National Nuclear Laboratory (NNL).

Mr. Rivera mentioned EM's technology office is collaborating with the U.K. and EA on both of their joint projects. He spoke about the 2013 statement of intent which discusses their collaboration on radioactive waste management, decommissioning and environmental remediation. He said EM is planning a workshop later in the fall and are working with the Canadian Nuclear Laboratory. He noted their trilateral engagement in the U.S., where they share their challenges, lessons learned and best practices. He said EM hosts monthly meetings to discuss technical issues like how they reduce their equipment, cleanup strategies and workforce planning to retain institutional knowledge. He spoke about the workshop and stakeholder engagement activities. He said their next workshop is in July in London. He also referred to the Standing Committee meeting at the Waste Management Conference.

Ms. Han said EM has fostered a robust bilateral relationship with Japan to support the Fukushima Daiichi Nuclear Power Plant accident cleanup and decommissioning effort. She said Japanese officials are addressing the challenges of the Fukushima Daiichi accident related to cleaning up contaminated water, buildings, soil, debris and spent nuclear fuel. She spoke about the Fukushima Stakeholder Forum happen this summer. She noted the Japanese expect the participation of EM in this year's forum to bring their expertise and lessons learned to the table. She mentioned the International Atomic Energy Agency and the Nuclear Energy Agency to collaborate with other experts on clean-up issues. She also said EM is supporting the U.S. State Department-sponsored Joint Standing Committee on Nuclear Energy Cooperation which provided the U.S. and partner countries with opportunity to exchange information on nuclear policy. She mentioned about EM's work with the Arctic Council's Arctic Monitoring and Assessment Programme Radiation Expert group.

Ms. Joceline Nahigian, Director of the Office of Intergovernmental and Stakeholder Programs, stated they work collaboratively with the U.S. State Department and other entities in the U.S. government to facilitate foreign travel. She said her office is responsible for processing travel policies and procedures and coordinating with travelers. She mentioned they are strengthening their relations with France to work in collaboration on various technologies.

National Laboratories' Support to EM Cleanup

Mr. Roberts introduced Dr. Ming Zhu, EM Senior Advisor for Laboratory Policy. Mr. Zhu began his presentation by stating that EM's estimated environmental liability is $406 billion, the majority of which is associated with tank waste, at about 60%. He said despite recent progress, the 15 remaining EM sites still face significant technical challenges. He stated over the past 34 years, national laboratories have provided critical expertise to address these challenges. He also presented a graph showing how the Lab Policy Office (LPO) manages the national laboratories' activities in support of the EM missions.

Mr. Zhu provided an update of the Battelle Savannah River Alliance M&O contract for operations of the Savannah River National Laboratory (SRNL) and stated DOE reviews rated two-thirds of SRNL's facilities as either substandard or inadequate for modern technology development. He stated the Secretary of Energy Advisory Board concluded in December 2014 "without the application of mature technologies from chemical and manufacturing industries, it is not clear the cleanup can be

completed satisfactorily or at any reasonable cost." He mentioned Congress allocated $50 million for the design and construction of the Advance Manufacturing Collaborative (AMC) facility in Aiken, South Carolina. He discussed the recently established Regulatory Center of Excellence (RCE) that helps EM and others with managing complex technical and regulatory issues involving science, government and communications, by facilitating effective communications between DOE sites, stakeholders, regulators and communities. He also noted the RCE's involvement to support EM in developing the national groundwater management strategy and the Office of Nuclear Energy in the consent-based siting program.

Mr. Zhu discussed the 2021 expansion of the EM National Laboratory Network (EMNLN). By combining six core labs in the EMNLN with five national laboratories from the Legacy Management Network to form the Network of National Laboratories for Environmental Management and Stewardship (NNLEMS) to support both EM and LM's missions. He said they leverage the combined knowledge base of the national laboratories to advise DOE on policy decisions and assist DOE in solving emerging or recalcitrant issues.

Mr. Zhu discussed the organization of NNLEMS, and their recent accomplishments. These included the FY 2019 completion of the NDAA Section 3134 Study of Supplemental Treatment of Hanford Low Activity Waste, completion of analyses, reviews, and independent assessments, among many others.

Mr. Zhu then transitioned into current projects for NNLEMS. These projects include progress on the NDAA Section 3125 Follow-on Study of Hanford Supplemental Low Activity Waste, development of the R&D roadmap for accelerating Hanford waste cleanup, independent reviews of groundwater issues at the LANL, ETEC, and Moab sites and development and implementation of the DOE PFAS research plan.

Mr. Zhu further discussed the progress on the NDAA Section 3125 Follow-on Study. NDAA Section 3125 mandated the Federally Funded Research and Development Centers (FFRDC) and NAS to conduct a follow-on study of alternative treatment of supplemental low-activity waste at Hanford. He stated the FFRDC team, led by SRNL, issued its final report on January 16, 2023, with the recommendation: "DOE should expeditiously secure and implement multiple pathways for off-site grout solidification/immobilization and disposal of LAW in parallel with the DFLAW vitrification process." He said WA and OR States, Tribes and communities have responded positively to the FFRDC report.

Mr. Zhu moved on to reviews of groundwater strategies for LANL, Moab and ETEC. He said at the request of EM sites, NNLEMS reviewed the groundwater management strategies for Cr (VI) and RDX plumes at the Los Alamos National Laboratory, provided input to the development of the Groundwater Corrective Action Plan for Moab, and advised ETEC on soil and groundwater remediation.

Mr. Zhu then highlighted NNLEMS support to EM sites in implementation of the DOE 2021 Climate Adaption and Resilience Plan including development of vulnerability assessment and resilience planning.

Mr. Zhu talked about the national groundwater strategy. He said historically, the EM program has

focused on tank waste cleanup. However, the stakeholder's concerns focused on migration of groundwater contamination.

He then communicated with the group about how EM-1 has chartered NNLEMS to develop a R&D Roadmap to continually identify research and development opportunities to provide cutting-edge technologies that can be used for improving efficiency, along with reducing costs and accelerating the schedule for the Hanford Tank Waste Cleanup Program.

Mr. Zhu said the Environmental Management Advisory Board has been tasked to review the tank waste roadmap. He said EM's plan is to use $50M of the FY 2023 appropriations for the implementation of the roadmap.

Mr. Roberts asked if there is a tension between perception and the reality of the research and development in their world and how do they manage and how you overcome those challenged. Mr. Zhu talked about how they work closely with the sites and follow best business practices.

Technology Development Overview by Mr. John Moon

Mr. John Moon, EM Office of Technology Development (TD), presented an overview of the EM Technology Development program. He introduced the TD team by sharing the organizational chart. He discussed their mission to lead and develop strategies, policies and guidance for technology development in support of the EM cleanup mission. He said their office manages EM's technology through interagency and academic interfaces to identify advancing technologies, solutions, materials and processes.

Mr. Moon shared focus areas such as tank waste treatment, soil and groundwater remediation, facility D&D and spent fuel and nuclear material disposition. These missions can be enabled by robotics, artificial intelligence and sample analysis. He said the portfolio includes how they work on solutions such as technical assistance, the test bench program, research and development projects and program optimization.

Mr. Moon said the TD program provides strategy and direction to reduce costs by deploying technology. He said they're investing $5M on aluminum spent nuclear fuel nails at the Idaho National Laboratory. He referred to the Consortium for Risk Evaluation and Stakeholder Participation, and High Efficiency Particulate air filters through the Mississippi State University Institute for Clean Energy Technology MSU ICET. He discussed wearable robotics devices research is funded through Sandia National Laboratory. He talked about support for small business R&D delivered by the Office of Science.

Mr. Moon also stated that the TD Office funds Florida International University (FIU) and the Minority Serving Institution Partnership Program (MSIPP).

A question was asked about the contamination monitor that TD Office is evaluating through the international program. Mr. Moon responded that the TD Office is reviewing the capability and benefit of these monitors at Los Alamos.

A question was asked whether TD had $5 million for the three fiscal years and if so, what about the inflation? Mr. Moon mentioned the Principal Investigators (PI) are responsible for determining the

total for the project and has accounted for inflation.

Congressional and Intergovernmental Overview by Ms. Jennifer Kramb

Mr. Roberts introduced Jennifer Kramb from DOE's Office of Congressional and Intergovernmental Affairs. Ms. Kramb briefed on the mission of the office. She said they have congressional liaisons coordinating with other offices to assist with any questions from congressional staff. She mentioned that on the intergovernmental side, they are focused on building relationships with local tribal representatives, non-profits and other stakeholder groups.

Ms. Kramb highlighted DOE's focus on the two-party legislation on infrastructure and reducing inflation. She said there is funding being used for resilience and energy deployment in response to climate change issues. She outlined the staff's roles and responsibilities. She spoke about their portfolio of advocacy work and regional public events.

Mr. Bob Skinner asked how you co-operate closely with a senator and what would happen if they lost the election. Ms. Kramb said that she doesn't exactly work on the congressional side and doesn't have more details.

Mr. Mark Hayden asked a question on climate change in terms of government issues. Ms. Kramb responded by giving the example of the tribes that contacted them for concerns about sea-level rise or communities dealing with high costs and permafrost issues. She also discussed the challenges communities face as a result of fires, floods, etc., and how they help them by holding listening sessions.

Mr. Bob Skinner asked if anyone in the aforementioned affected communities have tried to contact DOE to seek expert advice. Ms. Kramb mentioned the coordination with the local sites to help.

Kelly Snyder announced the upcoming meeting dates in Oak Ridge, Tennessee on October 3rd to 5th. The group discussed their experience with face-to-face meetings and shared challenges and opportunities at their sites.

The meeting adjourned at 5:15 PM.