ENVIRONMENTAL MANAGEMENT SITE-SPECIFIC ADVISORY BOARD

U.S DEPARTMENT OF ENERGY

PUBLIC MEETING MINUTES

September 25-26, 2024

DoubleTree by Hilton 215 S Illinois Ave Oak Ridge, TN 37830

LIST OF ACRONYMS

CAB – Citizens Advisory Board **DOE-Department** of Energy EM – (DOE) Office of Environmental Management EM SSAB - Environmental Management Site-Specific Advisory Board **EPA - Environmental Protection Agency** ETTP – East Tennessee Technology Park FACA – Federal Advisory Committee Act HAB - Hanford Advisory Board HQ – Headquarters ICP CAB - Idaho Cleanup Project Citizens Advisory Board LANL – Los Alamos National Laboratory NE – (DOE) Office of Nuclear Energy NRC – Nuclear Regulatory Commission NSSAB - Nevada Site-Specific Advisory Board NNMCAB - Northern New Mexico Citizens' Advisory Board NNSA - National Nuclear Security Administration NNSS – (DOE) Nevada National Security Sites OR – (DOE) Oak Ridge ORNL – Oak Ridge National Laboratory ORSSAB - Oak Ridge Site-Specific Advisory Board PFAS – Per- and Polyfluoroalkyl Substances PORTS SSAB - Portsmouth Site-Specific Advisory Board PPPO -Portsmouth/Paducah Project Office SODI - Southern Ohio Diversification Initiative 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 **USW-** United Steel Workers WAC- Waste Acceptance Criteria WIPP – Waste Isolation Pilot Plant

PARTICIPANTS

<u>Hanford Advisory Board:</u> Susan Coleman, Chair; Miya Burke, Vice-Chair; Lindsay Somers, Deputy Designated Federal Officer; Laura Caulfield, Staff; MaryAnne Wuennecke, Staff; Ryan Miller, Washington State Department of Ecology Liaison

Idaho Cleanup Project Citizens Advisory Board: Robert Skinner, Vice-Chair; Deborah Farber, Member; Maria Mitchell-Williams, Staff; Mariah Porter, Staff

<u>Nevada Site-Specific Advisory Board</u>: **Mark Hilton**, Vice-Chair; **Kevin Trainor**, Member; **Barbara Ulmer**, Staff; **Frank Bonesteel**, Nye County Liaison

<u>Northern New Mexico Citizens Advisory Board:</u> Manuel L'Esperance, Vice-Chair; Beverly Martin, Member; Keith Grindstaff, Deputy Designated Federal Officer; Yolanda Valdez, Staff; Bridget Maestas, Staff; Menice Santistevan, Staff

Oak Ridge Site Specific Advisory Board: Amy Jones, Chair; Kris Bartholomew Vice-Chair; Mary Butler, Member; Harriett McCurdy, Member; Melyssa Noe, Deputy Designated Federal Officer, Roger Petrie, Alternate Deputy Designated Federal Officer; Leah Alexander, Federal Coordinator; Abby Hill, Staff; Sara McManamy Johnson, Staff; Shelley Kimel, Staff; Sara Schaefer, Isotek

<u>Paducah Citizens Advisory Board:</u> **Don Barger,** Chair; **Frances Johnson,** Vice-Chair; **Eric Roberts**; Meeting Facilitator; **Robert "Buz" Smith**, Federal Coordinator; **Zachary Boyarski**, Staff

Portsmouth Site Specific Advisory Board: Donna Carson, Member; Julie Galloway, Staff; Greg Simonton, Federal Coordinator

Savannah River Site Citizens Advisory Board: Phyllis Britt, Chair; Kandace Cave, Vice-Chair; James Tanner, Deputy Designated Federal Officer Juanita Campbell, Staff

<u>Members of the Public:</u> Rachel Acosta, Harold Connor, Kristof Czartoryski, Paul Dill, Jim Doherty, Amy Fitzgerald, Luther Gibson, Larry Haler, Mike Hancock, Matt Hendrickson, Otto Merz, Josh Patnaude, Dan Solitz, Kelli Thompson, Samantha Urquhart-Foster

<u>U.S. Department of Energy Headquarters:</u> Jeff Avery, DOE EM Principal Deputy Assistant Secretary; John Howard, EM Deputy Chief of Staff; Charles Love, EM SSAB Federal Coordinator; Justin Marble, Director, DOE EM National Transuranic Program; Joceline Nahigian, DOE EM Director for Intergovernmental and Stakeholder Programs; Rod Rimando, Director, DOE EM Office of Technology Operations; Julia Shenk, Director, DOE EM Office of Packaging & Transportation; Kelly Snyder, EM SSAB Designated Federal Officer

MEETING MINUTES

The U.S. Department of Energy's (DOE) Environmental Management Site-Specific Advisory Board (EM SSAB) Chairs meeting was held in Oak Ridge, TN. Participants included board members, 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).

Wednesday, September 25, 2024

Day 1

Opening Remarks

Kelly Snyder, Designated Federal Officer, welcomed attendees, expressing gratitude for their participation and volunteerism on the Environmental Management (EM) Site-Specific Advisory Board (SSAB). She emphasized the importance of collaboration and learning from each other during the meeting. Ms. Snyder noted that the agenda was developed based on feedback from the previous meeting; to meet the board members' needs and ensure they receive the information necessary to support their work.

Eric Roberts, the meeting facilitator, introduced Jay Mullis, the Oak Ridge Office of Environmental Management (OREM) Manager, highlighting his leadership since 2017. Mr. Roberts also referenced the previous day's site tour and acknowledged the significant progress made under Mr. Mullis' leadership at Oak Ridge.

Mr. Mullis expressed his appreciation for the attendees and provided a brief reflection on his time with EM, including his stint at headquarters. He highlighted the progress made at the East Tennessee Technology Park, which is transforming into an industrial park. Mr. Mullis also acknowledged the ongoing work at Oak Ridge's two primary sites in collaboration with other program offices, such as National Nuclear Security Administration (NNSA) and the Office of Science. He commended the Oak Ridge SSAB's chair and vice chair for their critical role in fostering community support. He encouraged attendees to interact with them to learn more about their local efforts.

EM Program Update

Mr. Roberts introduced Jeff Avery, Principal Deputy Assistant Secretary for Environmental Management, to provide the DOE EM update.

Mr. Avery began by expressing his gratitude for the service and leadership of the EM SSAB members. He emphasized the essential role of advisory boards in fostering trust and transparency between DOE and the communities surrounding EM sites, noting the importance of active engagement and informed community perspectives.

Mr. Avery reflected on the significance of Oak Ridge as a setting for the meeting, describing it as a place where the past, present, and future of DOE's mission intersect. He acknowledged Oak Ridge, alongside Hanford and Los Alamos, as foundational sites of the Manhattan Project.

Since the inception of EM's cleanup program in 1989, Mr. Avery noted, significant progress has been made in addressing the environmental legacy of these national security missions. He highlighted Oak Ridge as a prime example of a site transforming environmental liabilities into opportunities for economic growth, clean energy, and national security priorities.

Mr. Avery then highlighted current successes and updates for each site:

Oak Ridge:

- Mr. Avery celebrated the recent successes in Oak Ridge, including the public-private partnership to convert uranium-233 into a form safe for shipment and disposal while providing materials for advanced cancer research.
- He highlighted Orano's announcement to construct one of North America's largest uranium enrichment plants in Oak Ridge, illustrating the economic benefits of cleanup progress.
- Mr. Avery commended the Alpha-2 facility project at Y-12, which marks the first teardown of a former uranium enrichment facility.

Portsmouth Paducah Project Office (PPPO):

- Mr. Avery discussed progress at PPPO, noting ongoing building demolitions to pave the way for future opportunities.
- During a recent visit to Portsmouth, Mr. Avery observed preparations for the demolition of the X-333 facility and met with community leaders working on economic diversification efforts.

Savannah River Site (SRS):

- Significant milestones are being achieved, including the transition of operations to NNSA while maintaining an enduring EM cleanup mission.
- Progress in tank waste treatment continues steadily. Since 2020, SRS has doubled its tank waste treatment capacity, treating nearly 10 million gallons of waste at the Salt Waste Processing Facility, along with:
- 17 million pounds of radioactive glass poured at the Defense Waste Processing Facility.
- 58 million gallons of grout produced at the Saltstone Production Facility.
- Construction of Saltstone Disposal Unit 9 was completed ahead of schedule, with major concrete placements finished for Unit 10.
- Mr. Avery highlighted the upcoming Advanced Manufacturing Collaborative, a facility designed to unite government, industry, and academia to accelerate technology development.

Idaho Cleanup Project (ICP):

- Operations at the Integrated Waste Treatment Unit have resumed, marking a major advancement in the tank waste mission.
- Mr. Avery praised the progress on demolition projects at ICP, particularly the accelerated retrieval project structures and demolition benchmarks for the Naval Reactors program.

Nevada National Security Site (NNSS):

- Mr. Avery acknowledged the ongoing stabilization of the EMAD facility, which may be demolished or transferred to for future missions.
- NNSS remains a critical location for the disposal of certain types of radioactive waste that cannot be handled at other EM sites, with the overall cleanup footprint continuing to shrink.

Hanford Site:

- Mr. Avery announced that the Waste Treatment Plant melters, which will solidify tank waste into glass, have reached operational temperature, with cold commissioning expected later this year.
- This milestone brings EM closer to addressing one of its largest environmental challenges.

WIPP (Waste Isolation Pilot Plant):

- Celebrating 25 years of operations, WIPP remains integral to the EM mission.
- The new ventilation system construction and commissioning are complete, with training and validation ongoing for operations to begin by 2026.
- WIPP supports transuranic (TRU) waste disposal for sites across the DOE complex, including Idaho, Hanford, Los Alamos, Oak Ridge, and Savannah River.

Los Alamos:

- Mr. Avery highlighted innovative technology deployment at Los Alamos, specifically advancements in waste drum analysis to improve speed and accuracy.
- He emphasized the cross-cutting benefits of the new technologies, which can enhance efficiency across the entire EM program.

Mr. Avery then continued to underscore the critical role of innovation in accelerating cleanup efforts. He described DOE's integrated approach to research, development, and deployment (RD&D) of new technologies, including:

- Test Bed Initiative at Hanford: Equipment installation is underway to evaluate multiple pathways for low-activity tank waste immobilization using grout and off-site disposal.
- Groundwater treatment technologies and drone inspections to improve efficiency and safety across cleanup operations.
- Mr. Avery reiterated the importance of partnerships with regulators to deploy effective and practical solutions that deliver long-term benefits.

Mr. Avery emphasized the need for thousands of workers across the EM complex over the next five years, highlighting DOE's investments in:

- STEM education and partnerships with academic institutions.
- Internships and apprenticeship opportunities to build talent pipelines.
- EM's first national labor union agreement in Tennessee.
- He stressed the importance of engaging local communities to recruit future workers and ensure continued mission success.

Mr. Avery provided updates on DOE's Cleanup to Clean Energy Initiative, which seeks to repurpose DOE lands at cleanup sites for clean energy projects. DOE has selected developers for large-scale solar energy projects at:

- Hanford
- Savannah River
- Nevada
- Idaho
- WIPP

These projects will generate substantial renewable energy, with Hanford's project alone expected to power hundreds of thousands of homes.

In closing, Mr. Avery commended the EM SSAB for its 30-year legacy of supporting EM's mission through nearly 2,000 recommendations, fostering transparency, and strengthening partnerships with DOE. He emphasized the importance of advisory boards reflecting the diversity of their communities to ensure broad representation and trust.

Mr. Avery praised improvements in the membership appointment process, noting early approvals for Oak Ridge (three months ahead), Hanford (two months ahead), and Nevada (four months ahead).

He reaffirmed DOE's commitment to listening to and engaging communities, which leads to better outcomes and strengthens relationships.

Chairs Round Robin

Eric Roberts opened the round-robin session, where each SSAB chair/vice-chair provided updates on their respective sites.

Idaho Cleanup Project Citizens Advisory Board (CAB)

Robert Skinner, Vice Chair

Mr. Skinner highlighted the protection of the Snake River Plain Aquifer as a top priority. He discussed the progress at the Integrated Waste Treatment Unit (IWTU), which is processing 900,000 gallons of liquid sodium-bearing waste using steam reforming technology. Mr. Skinner noted the board's focus on membership recruitment, with an impressive 96% first-term member retention rate over the past decade. In June, there was a cultural tour of the Idaho National

Laboratory site in cooperation with cultural specialists from the Shoshone-Bannock Tribe. The Idaho Cleanup Project CAB also celebrated its 30th anniversary in May. Additionally, the board urged timely decision-making and funding to support activities related to special nuclear fuel repackaging and calcine retrieval and packaging to meet 2035 milestones. Mr. Skinner said his board encourages the development of a complex-wide plan and process to move forward and establish certainty on identifying, funding, and opening a long-term high-level waste repository. The Board is also interested in DOE continuing to meet goals for TRU certification and shipments to WIPP.

Nevada Site-Specific Advisory Board (NSSAB)

Mark Hilton, Vice Chair

Mr. Hilton provided an update on the NSSAB's accomplishments, including strong member engagement, member retention, and recruiting success. He also noted the board's focus on ensuring community participation and input after the NSSAB sunsets, and ongoing historic preservation efforts at the Nevada National Security Site (NNSS).

Hanford Advisory Board (HAB)

Susan Coleman, Chair

Ms. Coleman discussed the HAB recent advice on fiscal year (FY) 2026 cleanup priorities and transuranic (TRU) waste management. She highlighted upcoming advice on traffic safety, alternate HAB members, and responding to public feedback. The board currently has 10 active issue manager teams. Additionally, Ms. Coleman mentioned recent tours of the Maintenance and Storage Facility (MASF) and the HAMMER facility, with a full-site tour planned for October. New membership transitions are scheduled for October 1st following the installment of new members. Ms. Coleman noted the holistic negotiations between DOE, EPA, and the Washington State Department of Ecology were completed and the HAB will continue to discuss topics related to the subject. The Board is still focused on concerns about the transportation of TRU waste. Ms. Coleman stated the board is interested in how the upcoming guidance on DOE advisory board operations will align with the HAB's operating ground rules and the Board's expectations. Lastly, the Board is trying to determine ways to increase participation of members in subcommittees, work groups, and leadership.

Northern New Mexico Citizens Advisory Board (NNMCAB)

Manuel L'Esperance, Vice Chair

Mr. L'Esperance provided updates on the NNMCAB's recent activities, including maintaining quorum and holding virtual/hybrid meetings, which increased public participation. The board conducted a new member tour of the Los Alamos Environmental Management sites in June, and an orientation workshop in July. Elections for the chair and vice-chair positions were held at the September 18th board meeting. A new field office manager was named.

Savannah River Site Citizens Advisory Board (SRS CAB)

Phyllis Britt, Chair

Ms. Britt shared updates from the SRS CAB focusing on the transition of land management responsibilities from EM to NNSA and complimented DOE at the site and headquarters level for great information sharing. The board made several recommendations, including annual compensation for community storage hosting, improvements to the payment in lieu of taxes (PILT) program, and the appointment of an NNSA liaison to the SRS CAB.

Portsmouth Site-Specific Advisory Board (PORTS SSAB)

Donna Carson, Member

Ms. Carson discussed the PORTS SSAB focus on transparent dissemination of environmental monitoring data and communicating the success and safety of the cleanup efforts to the community. The board encourages the government to maintain an accelerated funding schedule to ensure timely completion of site cleanup and actively pursuing baseline changes to accelerate land transfers for reindustrialization.

Paducah Citizens Advisory Board (PAD CAB)

Don Barger, Chair

Mr. Barger provided an update on the PAD CAB focus on expediting the transfer of land for future site use, supporting attracting and retaining talented employees, and advocating for modernized facilities. The board supports for full funding of the R-114 disposition project and increased funding for the Murray State University Grant, which supports community visioning, educational outreach, and research related to the site's environmental cleanup and land transfer decisions.

Oak Ridge Site-Specific Advisory Board (ORSSAB)

Amy Jones, Chair

Ms. Jones provided an update on the ORSSAB recommendation regarding OREM budget priorities for FY 2026. She noted the board's participation in national conferences, including the RadWaste Summit and Waste Management Symposium. The board recently participated in a community event celebrating OREM's accomplishments at the East Tennessee Technology Park. Looking ahead, the board is focusing on risk reduction activities for excess contaminated facilities at Y-12 and ORNL, as well as infrastructure development to support cleanup activities at these sites. The board is also focused on the disposition and processing of legacy transuranic debris and sludges.

EM SSAB Update

Kelly Snyder provided an update on matters related to the EM SSAB. She began by discussing the overarching policies and topics that affect all local SSAB chapters.

Ms. Snyder highlighted recent improvements in the membership appointment process. She noted that the new streamlined policies and procedures aim to ensure boards reflect the communities they represent and are appointed in a timely manner. Ms. Snyder shared some key successes:

- Hanford's membership package was approved two months ahead of schedule
- Oak Ridge's member appointments were three months ahead of schedule
- Nevada's appointments were finalized four months ahead of schedule

She attributed the success to a collaborative effort between board members, local sites, and headquarters. Ms. Snyder encouraged members to continue offering feedback on how the process could be further improved.

Ms. Snyder also provided an update on the DOE Manual 515.1-1, which guides advisory boards. This manual is being revised and will be issued as a DOE Order. Ms. Snyder is part of the integrated project team working on the update, and she emphasized that the new Order would have implications for the EM SSAB policy desk reference and local bylaws. As a result, Ms. Snyder requested that any new bylaw updates be put on hold until the DOE Order is finalized to avoid unnecessary revisions.

Additionally, Ms. Snyder addressed the spring chairs meeting recommendation regarding website improvements. She acknowledged receipt of the final recommendation and has begun discussing the recommendation with the DOE web team and the Office of Boards and Council. While an official response is forthcoming, steps have already been taken to ensure the extensive work of the SSABs is properly documented and accessible.

Ms. Snyder also discussed the recent Government Accountability Office audit on EM stakeholder and intergovernmental activities. The audit, which spanned over a year and a half, resulted in three recommendations:

- 1. Develop and implement a national framework for stakeholder and intergovernmental engagement across the EM complex.
- 2. Create site-specific or regional engagement plans at the local level.
- 3. Conduct an objective evaluation of the operation and effectiveness of the EM SSAB, with a focus on recruitment, appointment, representation, attendance, and member turnover.

Ms. Snyder informed the attendees that she would be leading the effort for the evaluation of the EM SSAB. This evaluation will involve all eight SSAB sites, and Ms. Snyder encouraged board members to provide their feedback on what aspects should be included in the evaluation. She reiterated the importance of capturing both successes and areas for improvement across all sites. Lastly, Ms. Snyder provided details on upcoming SSAB meetings. The Spring Chairs Meeting is scheduled for the week of April 21st, 2025, at Hanford, and the Fall Chairs Meeting is tentatively scheduled for the week of November 3rd, 2025, in Nevada.¹

¹ Dates and locations are subject to change. For the latest meeting schedule information visit <u>https://www.energy.gov/em/em-site-specific-advisory-board</u>

Q&A from EM SSAB Update

1. Impact of New DOE Order on EM SSAB Operating Documents

- Question (Bob Skinner, Idaho): Will the upcoming DOE order significantly change the EM SSAB operating documents?
- Response: The new Order will result in changes, but the extent of those changes are uncertain. All documents will need to comply with the new Order. Some comments in the review process were weightier than others, but a solid answer on the significance of the changes is not yet available. Ms. Snyder recommended holding off on changes to operating ground rules or bylaws unless they are already under review.

2. Clarification on DOE Manuals and Orders

- Question (Susan Coleman, Hanford): Requested clarification on the difference between a manual and an order.
- Response: Ms. Snyder mentioned that DOE is converting manuals to orders, which includes reviewing the necessity of each manual and its content.

Public Comment Period

Ms. Snyder opened the floor for the public comment period, reminding attendees that while comments should focus on the mission of the EM SSAB, participants were free to speak on any topic. Two individuals had expressed interest in providing comments.

Luther Gibson was the first to provide a public comment. Mr. Gibson introduced himself as a retired employee who had worked for site prime contractors at Paducah, Y-12, and K-25, as well as providing on-site support to projects at Portsmouth, Fernald, Rocky Flats, and Savannah River. He served as the chair of the ORSSAB from 2000 to 2002 and is currently the Vice President of the Coalition of Oak Ridge Retired Employees, a 501(c)(5) organization representing over 15,000 de facto members.

Mr. Gibson raised concerns regarding the interdependency of DOE sites and the importance of understanding the history of waste treatment, shipment, and disposal across the complex. He highlighted the role Oak Ridge played in accepting PCB-contaminated waste through the now-closed Toxic Substances Control Incinerator, as well as the waste shipments between various DOE sites, including depleted uranium hexafluoride (DUF6) sent from Oak Ridge for conversion and spent nuclear fuel stored in Idaho. Mr. Gibson emphasized the need for broader awareness of past and present waste management systems and recommended promoting the use of systems like the Waste Information Management System and the Annual Transuranic Waste Inventory Report. He concluded by expressing interest in discussing SSAB engagement and effectiveness during future sessions.

Ryan Miller was the second to provide a public comment. Mr. Miller introduced himself as the Communications Manager for the Washington State Department of Ecology's Nuclear Waste Program. He explained the department's role as a regulator in partnership with the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) under the Tri-Party Agreement. Mr. Miller noted that the Hanford Advisory Board (HAB) is unique among SSABs because it provides policy-level advice to DOE, the State of Washington, and the EPA. He serves as the primary liaison between the State of Washington and the HAB.

Mr. Miller expressed his appreciation for the work of the HAB and emphasized the value the State of Washington places on the board's advice and recommendations. He also mentioned his interest in learning more about the other SSABs and their operations during the meeting, as this was his first time attending an EM SSAB Chairs Meeting. Mr. Miller concluded by expressing his gratitude for the opportunity to participate and looked forward to connecting with other attendees throughout the week.

Additionally, there was one comment submitted in writing from Luther Gibson:

"Public Comment to EM Site Specific Advisory Board Chairs Meeting by Luther Gibson September 25-26, 2024

I am Luther Gibson. I retired in 2017 from Consolidated Nuclear Security at the Y-12 National Security Complex after a 40-year career with site prime contractors at Paducah, K-25, and Y-12. I also provided on-site technical support to projects at Portsmouth, Fernald, Rocky Flats, and Savannah River. I served on the Oak Ridge Site Specific Advisory Board (ORSSAB) from 1999 to 2005 and was Board chair from August 2000 to August 2002. During my tenure as ORSSAB chair, 36 recommendation and comment letters were issued to agency officials. Currently I am Vice President of the Coalition of Oak Ridge Retired Employees (CORRE), a 501(c)(5) organization with over 15,000 de facto members that advocates for pension and other post-retirement benefits for Department of Energy (DOE) prime contractor retirees from Oak Ridge and certain grandfathered Environmental Management contractor retirees at Paducah and Portsmouth.

There are two parts to my public comment.

Part 1 - Interdependency of Department of Energy Sites

It is easy to draw pointed conclusions based on a snapshot of who is currently sending what where with regard to waste and material shipments for treatment, storage, and disposal. These conclusions should be based on an understanding of the history as well as whether sites are maximizing their own on-site disposal capability. For example, the Toxic Substances Control Act Incinerator in Oak Ridge accepted PCB-contaminated, hazardous, and radioactive waste from throughout the DOE Complex. Since that facility was closed and demolished, some may now be unaware it ever existed. Oak Ridge has sent depleted uranium hexafluoride to Portsmouth for conversion, spent nuclear fuel to Idaho for storage, mixed and low-level radioactive waste to Nevada and Utah for burial, and transuranic waste to Carlsbad for deep emplacement, as well as other examples. Other DOE sites continue to ship waste for treatment to commercial facilities in our community with the impact on our local environment claimed insignificant as long as these facilities comply with permits. And there are commercial facilities treating, storing, and disposing DOE waste including from Oak Ridge in other communities. At times, regulators and other stakeholders have taken positions that impeded cooperation or shown hesitance to consider on-site options for their own wastes. Awareness of the past and present situation is essential for informed engagement with stakeholders in other DOE communities as occurs at meetings like the EM SSAB Chairs. The EM SSABs should promote awareness of systems like the Waste Information Management System maintained for DOE by Florida International University, the Annual Transuranic Waste Inventory Report, and Waste Disposal Operations Volume Reports at Nevada National Security Site and recommend DOE maintain the data as current as possible.

Part 2 - Observations of SSABs Relating to Engagement and Effectiveness

Response to a recommendation in GAO-24-106014 Report, NUCLEAR WASTE CLEANUP: Adopting Leading Practices Could Strengthen DOE's Engagement with Stakeholders and Governments, has led to an EM commitment to facilitate and complete an evaluation of the operations and effectiveness of the EM Site Specific Advisory Boards by January 31, 2026.

Personally, I have observed evolution of ORSSAB and the other EM SSABs over time as well as current variations in what is being discussed.

Hopefully the following observations may stimulate examination of issues related to engagement and effectiveness of the EM SSABs.

There currently seems to be variation in the frequency and length of meetings and the number of issues addressed by the individual SSABs that cannot be explained entirely based on the number of issues that could benefit from input. The accepted time commitment for SSAB service and support may vary by location and be a factor.

Some of the SSABs are organized into committees focused on issues that fall into grouped topical areas and may even have committees focused on activities such as public outreach whereas others have no such subdivision of tasks.

The content and formality of presentations from agency liaisons varies among local SSAB meetings.

SSAB policies and guidance can present conundrums. Public participation is encouraged yet response to public comments during meetings is not. A technical background is not required for Board membership yet is helpful to prevent recommendations from being no more than feedback on the effectiveness of DOE's messaging in the presentations. This is not meant to disparage members without a technical background in a particular subject. They provide common sense. Perhaps an appropriately small number of SSAB appointments could be Special Government Employees rather than all Representative.

Of great concern is the apparently increasing level of approval by EM in Washington of the information in presentations. This review delays availability of meeting materials and preparation of questions in advance. A frustration with regard to this matter was recently noted by Gary Elgort of the Nevada SSAB. Much of the material in the presentations is already available in the public domain from past or other presentations or documents available for review.

With regard to the annual budget priority presentations, shared information varies based on timing of the board meetings relative to release of the next FY budget request to Congress and passage of appropriations bills. Although updated information may be publicly available at time of the presentation, local DOE personnel may not feel they have approval to discuss or comment. In addition, some DOE field offices hold general public meetings, make targeted presentations to other stakeholder groups, and even actively solicit budget priority input via a dedicated email address (e.g., CleanupPriorities@rl.gov) while others may consider the SSAB presentation and requested recommendation adequate.

Some select SSAB activities are unique. For example, Nevada SSAB members participate in low-level waste visual verifications and facility evaluations at generator sites as well as observing real-time radiography operations at Area 5 to verify compliance with waste acceptance criteria. They learn of findings and corrective actions required of generators not publicized back where the issues arose.

I could go on and on.

Thank you very much for your time and consideration."

EM Technology Program Update

Rodrigo "Rod" Rimando, the Director of Technology Operations within the Office of Environmental Management (EM), delivered a comprehensive technology update. The presentation, which followed a structure that highlighted recent developments in the office and key partnerships, was part of the broader effort to provide insight into the DOE's ongoing and future technological initiatives in environmental management.

Key Discussion Points:

1. Introduction to the Office of Technology Operations:

- The Office of the Chief Technology Officer (CTO) was introduced as the central body responsible for leading technology innovation across the Environmental Management complex. Mr. Rimando explained that this office promotes increased collaboration with various federal executive departments and the international community.
- The CTO role involves fostering the integration of national laboratory expertise and ensuring the efficient execution of engineering best practices.

2. Technology Portfolio Overview:

- Mr. Rimando provided an overview of the ongoing and future projects under the technology portfolio, which includes:
 - 132 Active Projects, funded at \$103 million.
 - Hanford Accelerated Tank Waste R&D Roadmap Rimando noted that 13 projects are being executed as part of this effort.
 - Active areas in Deactivation and Decommissioning, Soil and Water Remediation, and Nuclear Cleanup Robotics and Remote Systems.

3. Hot Technology Topics:

- Advanced manufacturing and nanomaterials were highlighted, particularly in the context of their potential impact on cleanup missions. Research on metal-organic frameworks (MOFs), for example, showed promise for the sequestration of technetium, which is crucial for addressing contamination.
- Robotics and remote systems continue to be a focus, with applications in environmental monitoring and the handling of hazardous waste. A notable project involved unmanned aerial vehicles (UAVs) used in GPS-denied spaces, such as the Waste Isolation Pilot Plant (WIPP) drifts.

4. Key Partnerships:

- Mr. Rimando emphasized the significance of collaboration between DOE National Labs, universities, and federal agencies. The Network of National Laboratories for Environmental Management and Stewardship (NNLEMS), led by the Savannah River National Laboratory, was noted as a critical partnership for advancing EM's mission.
- The Minority Serving Institutions Partnership Program (MSIPP), now in its 10th year, plays an essential role in building a diverse and skilled workforce for future environmental management challenges. EM has partnered with over 80 minority-serving institutions, engaging over 1,600 students and 100 faculty members.

5. Future Outlook and Final Thoughts:

- Mr. Rimando provided a long-term perspective on EM's mission, noting that while significant progress has been made, much work remains. He projected that the mission could extend into the 2090s and that successive industrial revolutions could bring new opportunities for advancing cleanup technologies.
- He also recognized the importance of generational workforce development, emphasizing that today's efforts are paving the way for future professionals to continue this critical mission.

Rodrigo Rimando concluded by noting the importance of innovation in environmental management and encouraged attendees to reflect on how partnerships and technology could shape the future of DOE's cleanup mission before turning pivoting to a Q&A session.

The Q&A session covered topics from the future of AI in operations to international collaboration and minority engagement. Below are the key questions and responses:

1. Autonomous AI and Supervision:

- Question (Don Barger, Paducah): Do you foresee an AI-driven device operating without human oversight in the future?
- Response: While the technology is capable, we're not currently at a level where an autonomous AI device can operate without human supervision, particularly in DOE's complex environment. Safety is the top priority, and any AI-driven tool will remain under supervised control for the foreseeable future. It may change in 10-15 years, but at present, we need to ensure that AI operates as intended and safely.

2. Intellectual Property (IP) Ownership:

- Question (Kris Bartholomew, Oak Ridge): Who owns the intellectual property (IP) for technologies developed in R&D?
- Response: It depends. If the government makes the initial investment, the government owns the IP. For commercial technologies brought in by vendors, the vendors retain their IP unless otherwise negotiated. However, DOE must fully understand how a technology works to authorize its use, meaning they cannot use "black box" technologies without knowing the operational details for safety reasons.

3. Exoskeletons and Wearable Technology:

- Question (Miya Burke, Hanford): Can you explain more about the exoskeletons and exosuits you mentioned?
- Response: Exoskeletons and exosuits are wearable devices designed to augment the human body's natural abilities, such as providing support for the lower back during heavy lifting. Although these devices have been demonstrated, they are not yet fully deployed. They hold promise in reducing physical stress and preventing injuries, particularly for workers who need to maintain challenging positions for extended periods.

4. International Cooperation on High-Level Waste Technologies:

- Question (Bob Skinner): How open are other countries, such as France and England, in sharing their high-level waste technologies?
- Response: In recent years, there has been a willingness from international partners to share their technologies. For example, the Isotreat technology from Australia and other high-temperature solutions have been explored in collaboration with DOE to address specific waste types. The challenge is in matching the right technology to the right waste stream and ensuring the cost-effectiveness of any new solutions.

5. Minority Serving Institution (MSI) Engagement:

- Question (Fran Johnson, Paducah): Beyond Hispanic and African American students, what other minorities are included in DOE's outreach programs?
- Response: The program includes all minority-serving institutions (MSIs) as defined by the Department of Education, such as Asian communities, tribal nations, and more. The goal is to engage a diverse set of students and institutions to ensure broader representation and participation in DOE's missions.

6. AI Reliability and Accuracy:

- Question (Phyllis Britt, SRS): How reliable and accurate is AI, and how do you ensure it performs as expected?
- Response: AI's reliability depends on the quality of the data it is trained on—often summarized as "junk in, junk out." For AI to provide valuable insights, the input data must be of high quality and technically sound. Governance structures, including best practices for ensuring data integrity and privacy, are in place to ensure AI-driven tools operate correctly.

7. Long-Term Future of AI and Human-AI Integration:

- Question (Mark Hilton, Nevada): Looking ahead, what might the future generations look like in terms of prosthetics and cybernetic implants?
- Response: The future could include more advanced human-AI integrations, such as implants that enhance human perception or allow workers to "see" radiation levels. While it's speculative, technologies like these could become part of standard operational tools, especially as DOE's mission extends far into the future.

8. Knowledge Management and AI's Role:

- Question (Kandace Cave, SRS): How do you preserve old technologies and ensure they are still accessible?
- Response: DOE's knowledge management systems ensure that past research and technologies are archived and maintained for future use. AI tools are being used to analyze these archives and make the data accessible for current and future research, preventing duplication of effort and aiding in technology development.

Mr. Rimando concluded the session by emphasizing the cautious but optimistic approach to AI, focusing on safety, accuracy, and long-term benefits while ensuring proper oversight and governance. The Q&A provided a deeper understanding of how technology is shaping the future of DOE's environmental management efforts.

From Cleanup to a Cure: How the U-233 Disposition Project is Advancing Cancer Treatment Research

Sarah Schaefer, President and Project Manager at Isotek Systems, delivered a presentation titled "The Lasting Legacy of U-233." Her talk provided a comprehensive overview of the U-233 Disposition Project, highlighting Isotek's role in managing, processing, and safely disposing of uranium-233 while extracting thorium-229 for cancer research applications. The presentation underscored the innovative partnerships and technological solutions employed to transform Cold War-era waste into life-saving advancements in medical science.

1. Isotek Systems Overview:

Isotek Systems is an unpopulated LLC owned by Atkins Realis, responsible for the U-233 Disposition Project at Oak Ridge National Laboratory (ORNL). The project has approximately 185 employees working to dispose of the nation's supply of Uranium-233 (U-

233), which has been deemed a safety and security hazard.

2. Historical Context of U-233:

In 1997, the U.S. Congress determined there was no future programmatic use for the nation's U-233 inventory. The U-233 Disposition Project was awarded in 2003 to manage this material. Operations began in 2007. U-233, a man-made fissile isotope, is no longer produced, and there is a limited quantity stored at Oak Ridge National Laboratory. About two-thirds of the U-233 inventory has been buried, and the remainder is reserved for potential future use in criticality experiments.

3. Location and Facilities:

The project operates in the vintage northwest area of ORNL, including Building 3019 (the U-233 repository) and Building 2026 (the processing facility). Building 3019, constructed in the 1940s, is the world's oldest operating nuclear facility. Building 2026, which had no mission post-2006, was repurposed for the lab-scale processing of U-233.

4. Challenges in Processing U-233:

Originally, the plan was to handle all U-233 canisters in Building 3019. However, due to structural and process limitations, the Department of Energy (DOE) and other experts in 2011 determined that a subset of the inventory could be directly disposed of, while the remainder required processing. In 2012-2017, several canisters, including ceramic monoliths and zero-power reactor plates, were shipped to secure locations for future experiments and disposal.

5. Partnership with Terrapower:

In 2015-2018, Terrapower, a private company, approached DOE regarding the extraction of thorium-229 from the U-233 inventory before down-blending the uranium. This led to the formation of a public-private partnership, where thorium-229 is extracted and sold to Terrapower for use in targeted alpha therapy (TAT) research for cancer treatment. Proceeds from the sale help offset the costs of U-233 disposal.

6. Thorium Express and Thorium Processing:

Isotek began a small-scale processing operation, named "Thorium Express," in 2019, converting a former storage room into a glovebox facility. The first thorium-229 was delivered to Terrapower in late 2019. The glovebox facility processed 27 canisters and extracted 1.67 grams of thorium, representing 95% of the available thorium in those canisters.

7. Facility Upgrades for Large-Scale Processing:

While glovebox processing continued, Building 2026 was retrofitted to handle higher-dose U-233 canisters in hot cells. The facility received startup authority in October 2022 and began processing canisters shortly thereafter. The initial processing campaign focuses on U-233 oxides, with 39% of the campaign complete as of this meeting. Over 10 grams of thorium have been extracted thus far, with a total potential thorium recovery of 45 grams.

8. Importance of Thorium-229 and Actinium-225:

Thorium-229 decays into actinium-225, a valuable isotope used in targeted alpha therapy

(TAT) for cancer treatment. Actinium-225 has shown promise due to its ability to target cancer cells with minimal damage to surrounding healthy tissues. Clinical trials have been conducted in Europe, with raised bio and Novartis utilizing Actinium-225 in human cancer trials.

9. Key Accomplishments:

Isotek has processed a significant portion of the U-233 inventory, shipped 14 batches of solidified waste for disposal, and established a robust public-private partnership with Terrapower. The material extracted from Oak Ridge is already contributing to cancer treatment research.

Open Discussion

1. Board Member Engagement and Education

- Comment (Kevin Trainor, Nevada): Being at the event has been highly educational, especially for those focused on specific sites. The tour and sessions have helped me understand the broader mission across different DOE sites, which was previously only known in theory.
- Comment (Kandace Cave, SRS): As a first-time chair, there was a learning curve without prior nuclear or federal experience. However, over time and after the tour, things have started to make sense. The challenge is that just as one gets comfortable, the term ends.

2. Preservation and Sharing of Historical Site Information

- a. Question (Don Barger, Paducah): How can the historical content created at individual sites, such as videos or projects, be shared and accessed more broadly across other sites and the public?
- b. Response (Kelly Snyder, DFO): The best way to stay informed is to subscribe to the DOE EM Update Newsletter and follow DOE's social media. Sites may also have individual newsletters. DOE HQ publications cover multiple sites, and broader conferences or virtual workshops can provide valuable updates. Historical publications are often archived and can be accessed via OSTI.gov, but not all documents are available online.

3. Document Access and Preservation

- a. Follow-up (Deborah Farber, Idaho): Is there a way to query historical documents from a specific cleanup project, like Idaho's, for example?
- b. Response (Kelly Snyder, DFO): OSTI.gov provides a database to search DOE environmental management documents. Filters can help narrow down specific documents or publications related to particular sites or topics.

4. Retention of Board Members and Impact of Federal Guidelines

a. Question (Phyllis Britt, SRS): How much of our board's operating requirements are federal versus local, especially since each CAB seems to operate differently?

b. Response (Kelly Snyder, DFO): All local SSABs are under federal guidelines, but each site can customize certain operations, such as forming subcommittees or determining chair election durations. Federal documents, like operating procedures and bylaws, must align with overarching DOE directives, and membership and terms are set by DOE but shaped to suit the site's needs.

5. Member Attendance and Quorum Issues

- a. Question (Phyllis Britt, SRS): What happens when a member stops attending meetings, affecting the quorum, but there's no removal process in place?
- b. Response (Kelly Snyder, DFO): DOE has the authority to appoint or remove members. If a member's non-participation is affecting quorum or overall board function, the Board can consult the DFO, and if necessary, DOE can proceed with removing or replacing the member.

Day 1 Wrap Up

Mr. Roberts concluded Day 1 by thanking the board members for their participation and valuable contributions throughout the day, expressing appreciation for their time and engagement.

Thursday, September 26, 2024

Day 2

Opening Remarks

Eric Roberts, Meeting Facilitator, began the second day by addressing the challenges posed by the day's heavy rain and emphasizing safety as the top priority. He encouraged participants to make arrangements as needed and took a headcount for the afternoon's planned emergency response and transportation training. The training would proceed if there were enough attendees, with flexibility for changes.

Mr. Roberts provided logistical updates, including reminders about hotel checkouts and upcoming meeting evaluations, which would be emailed after the meeting to allow participants time for thoughtful responses.

Mr. Roberts outlined the agenda, including public comment, presentations by Justin Marble on WIPP and TRU, and Julia Schenk on Transportation, followed by open discussions.

The meeting proceeded with public comment.

Public Comment

Ms. Snyder opened the floor for the public comment period, reminding attendees that while comments should focus on the mission of the EM SSAB, participants were free to speak on any topic. Two individuals had expressed interest in providing comments.

Luther Gibson provided a public comment. Mr. Gibson offered observations on the engagement and effectiveness of the Site-Specific Advisory Boards (SSABs). He highlighted variations in meeting frequency, length, and content across boards, noting that these differences could not solely be attributed to the issues at hand but might also stem from time commitments and support provided to the boards.

Gibson pointed out that some SSABs have committees addressing specific topics, such as public outreach, while others do not, creating inconsistencies. He also discussed variations in the content and formality of presentations from DOE liaisons. He expressed concern about the increasing levels of review and approval required for presentations, which he argued can delay access to locally available information and hinder preparation for meaningful discussions.

Additionally, he raised issues related to public participation, emphasizing the importance of balancing technical knowledge with common-sense perspectives from board members. Gibson suggested that a small number of board members could be appointed as special government employees to provide additional technical expertise.

He noted challenges with the annual budget priority process, including timing relative to the release of budget requests and appropriations. Some DOE field offices hold public meetings or targeted presentations, while others rely solely on the SSABs, leading to varying levels of information dissemination.

Gibson also shared examples of unique activities in Nevada, such as board participation in waste verification and facility evaluations, which he suggested could benefit other SSABs.

Waste Isolation Pilot Plant (WIPP)/Transuranic Waste Update

Justin Marble, DOE-EM, Director of the National TRU Program, presented an overview of the Waste Isolation Pilot Plant (WIPP), celebrating its 25th year of operations. He emphasized WIPP's unique role as the only operational deep geological repository for defense-related transuranic (TRU) waste. Over its history, WIPP has received 14,089 waste shipments, amounting to 16.8 million loaded miles traveled safely. The facility has supported the cleanup of 22 sites across the DOE complex and remains critical to ongoing TRU waste disposal efforts.

Key Updates and Accomplishments:

- Legacy TRU Waste: A new hazardous waste facility permit, effective November 2023, including requirements for a Legacy TRU Waste Disposal Plan. Panel 12 has been designated for Legacy mixed TRU waste to the extent practicable.
- Infrastructure Investments: Major projects include the Safety Significant Confinement Ventilation System (SSCVS) and a new utility shaft to enhance air intake. The SSCVS,

operational by 2026, will increase airflow to 540,000 cubic feet per minute, supporting worker safety and operational efficiency.

- Mining and Operations: Panel 11 mining began in December 2023 and has reached its first room. Panel 8 continues waste emplacement activities. The site operates as a clean facility, prioritizing safe and compliant waste handling.
- Safety and Culture: The WIPP team remains focused on preventing accidents and injuries. Recent audits highlighted improvements in safety practices, with only one minor violation noted during an unannounced inspection.
- Regulatory and Economic Impact: The renewed 10-year WIPP permit includes enhanced transparency and prioritization of New Mexico waste. WIPP supports 1,700 jobs in New Mexico, contributing over \$77 million in local contracts in 2023 alone.

Key Challenges and Future Directions:

- Capacity Management: WIPP has filled approximately 44% of its total waste capacity (6.2 million cubic feet). Plans for Panels 13 and beyond are under development to accommodate future waste streams.
- Buffer Zones and Fracking: Marble addressed concerns about surrounding oil and gas activities, noting that WIPP operates within a legislatively mandated buffer zone and continues to assess potential risks from fracking.
- Monitoring and Legacy Waste Focus: The site is exploring new technologies, including drones, for monitoring waste rooms and ensuring long-term safety.

Engagement and Community Outreach:

• WIPP remains committed to transparent communication and local engagement. Recent initiatives included hosting the DOE Regional Science Bowl, celebrating WIPP's anniversary, and maintaining a robust tour program.

Dr. Marble concluded by inviting questions from attendees, and addressing topics such as shipment logistics, political relationships, and monitoring practices:

1) Shipment of Waste by Rail

- a) Question (Beverly Martin, Northern New Mexico): Is Carlsbad investigating the shipment of waste by rail?
- b) Response: No, all shipments are conducted by truck using NRC Type B (e.g., TRUPACT-II) containers.

2) Water in Lagoons

- a) Question (Bob Skinner, Idaho): Why was water present in the lagoons, and where is the water sourced?
- b) Response: Water is primarily from salt mining activities and perched aquifers. Heavy monsoon rains also contributed, with some water entering an uncovered mine shaft that required removal.

3) Panel Closure

- a) Question (Bob Skinner, Idaho): When closing a panel, is salt added, or does the mine naturally seal itself?
- b) Response: Panels are sealed with doors, and the mine naturally heals itself. Disturbing waste after placement is avoided to minimize risks.

4) Political Environment in New Mexico

- a) Question (Mark Hilton, Nevada): What is the political environment in New Mexico regarding WIPP?
- b) Response: Relationships with New Mexico's state government fluctuate due to politics and personalities. WIPP maintains a strong rapport with local communities and regulators, renewing its hazardous waste permit and fostering collaboration with the New Mexico Environmental Department.

5) Monitoring Sealed Panels

- a) Question (Don Barger, Paducah): What type of monitoring is done within sealed panels, both now and in the future?
- b) Response: Monitoring is challenging due to the salt environment's effects on equipment. Efforts are ongoing to develop technologies like drones and remote monitoring systems. Updates on this will be provided in the future.

6) Inspections and Minor Violation

- a) Question (Debbie Farber, Idaho): What do inspections evaluate, and what was the recent minor violation?
- b) Response: Inspections assess compliance with safety and operational standards. The recent minor violation involved improper storage of rags, raising fire hazard concerns. Discussions with regulators are ongoing to address discrepancies.

7) Waste Capacity and Panel Planning

- a) Question (Amy Jones, Oak Ridge): At the current shipping rate, when will WIPP reach full capacity?
- b) Response: At the current rate of 10-11 shipments per week (maximum of 17), projections indicate WIPP will not reach its maximum capacity of 6.2 million cubic feet based on current waste estimates through 2080.
- c) Follow-Up Question: What is the maximum number of panels planned for WIPP?
- d) Response: Current plans include 19 panels, adjusted based on geological assessments and waste volume projections.

8) WIPP as a "Pilot Plant"

- a) Question (Amy Jones, Oak Ridge): Why is WIPP still considered a "pilot plant" after 25 years?
- b) Response: WIPP remains the only operating deep geological repository for radioactive waste globally. The "pilot" designation persists in legislative language and regulatory documents.

9) State Leadership's Attitude Toward WIPP

- a) Question (Kevin Trainor, Nevada): What is the attitude of New Mexico's political leadership toward WIPP?
- b) Response: Relationships fluctuate due to political and economic factors. DOE-EM focuses on compliance and safety to maintain trust, ensuring consistent operations despite changing dynamics.

10) Underground Dimensions

- a) Question (Don Barger, Paducah): What are the current underground dimensions of WIPP?
- b) Response: Exact dimensions will be provided later. The layout includes older areas for scientific experiments and newer expansions for waste storage.

11) Buffer Zone and Fracking

- a) Question (Debbie Farber, Idaho): Is there a buffer zone around WIPP to prevent impacts from fracking or other activities?
- b) Response: Yes, a legally established buffer zone surrounds WIPP. DOE and EPA are evaluating the potential impacts of fracking near the site.

12) Opposition to TRUPACT Shipments

- a) Question (Beverly Martin, Northern New Mexico): How does WIPP address opposition to TRUPACT shipments through populated areas like Santa Fe?
- b) Response: DOE has constructed bypass routes to avoid dense areas. However, urban growth near bypasses has increased concerns. DOE continues to engage communities and address these issues.

Open Discussion

During the open discussion, each site named the organizations involved at their location, including the Office of Environmental Management (EM), National Nuclear Security Administration (NNSA), Office of Science, and Office of Legacy Management.

This discussion was prompted as a result of NNSA's new presence at the Savannah River Site.

Transportation Update

Julia Shenk, DOE-EM, Director for the Office of Packaging and Transportation (OPT), presented an overview of their mission.

Key Discussion Points

- 1. Mission and Organizational Context:
 - OPT operates under the Office of Regulatory and Policy Affairs and provides services across the DOE complex.

• Its mission is to protect people and the environment through oversight, policy development, and technical support for packaging and transportation activities.

2. Core Programs and Initiatives:

- Compliance and Safety:
 - Motor Carrier Evaluation Program (MCEP): Oversees 30+ certified carriers to ensure safe and reliable transport.
 - Transportation Compliance Assurance Program (TCAP): Conducts regular site assessments to maintain compliance with DOE Orders.

• Packaging Certification Program (PCP):

- Issues Type B Certificates of Compliance in alignment with DOE and NRC regulations.
- Supported by specialized teams from DOE National Laboratories.
- Facilitates innovative graduate-level courses on packaging and transportation.

• Technology and Innovation:

- RFID tracking and sensor systems for real-time monitoring of shipments.
- Tools such as ATLAS (logistics management), RadAnalysis (shipping calculations), and TRAGIS (routing optimization).

3. Stakeholder Engagement and Training:

• Transportation Emergency Preparedness Program (TEPP):

- Provides training to 2,140 first responders across 20 states in FY24.
- Focuses on emergency response preparedness for jurisdictions along DOE shipping routes.

• National Transportation Stakeholders Forum (NTSF):

- A platform for state and tribal collaboration in shipment planning and policy updates.
- Annual meetings and regular engagement ensure alignment with regional stakeholders.

4. Key Accomplishments and Future Plans:

- Successfully integrated advanced technologies to enhance transportation safety and monitoring.
- Continued focus on fostering partnerships with federal agencies, states, and tribal governments.
- Expansion of educational initiatives to address workforce challenges in packaging and transportation.

Q&A Highlights

1. Background and Training Outreach:

- Question (Don Barger, Paducah): What is your background, and how does OPT ensure training coverage for underserved areas?
- Response: Ms. Shenk's background is in hazardous material transportation with the Army. OPT identifies training gaps and proactively offers tailored programs to communities along shipping routes.

2. Transportation Modes and Cost Analysis:

- Question (Chris Barrett, Oak Ridge): What is the breakdown of transportation modes, and has OPT analyzed rail versus trucking costs?
- Response: Trucking is the dominant mode for radioactive materials, with rail used for high-volume shipments. Rail offers potential cost savings for large-scale campaigns.

3. Carrier and Campaign Management:

- Question (Debbie Farber, Idaho): How are shipping campaigns defined, and what happens if issues arise with certified carriers?
- Response: Campaigns refer to multi-shipment activities. Carriers are closely monitored, and any issues are reported to OPT to address safety or performance concerns.

4. Community Notification and Engagement:

- Question (Miya Burke, Hanford): How does OPT notify communities about upcoming shipments?
- Response: Advanced notifications are provided to state and tribal authorities. OPT encourages early and continuous engagement with local stakeholders to build awareness and trust.

5. Routing and Infrastructure Challenges:

- Question (Mark Hilton, Nevada): Is OPT addressing infrastructure challenges and route changes in growing areas?
- Response: While OPT does not directly manage infrastructure, it works with states and DOE sites to evaluate and adapt shipping routes as needed.

Ms. Shenk concluded by emphasizing OPT's dedication to safety, collaboration, and continuous improvement in packaging and transportation. Her insights offered a clear understanding of the intricate logistics supporting DOE's environmental management mission.

Final Comments/ Meeting Wrap Up

Each attendee shared their thanks and thoughts regarding the meeting. Ms. Snyder adjourned the meeting.

The meeting adjourned at 11:40 a.m.