

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

**PUBLIC MEETING MINUTES**

**May 22, 2023**

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## PARTICIPANTS

### **Environmental Management Advisory Board (EMAB) Members:**

David Abelson  
 Amy Fitzgerald, EMAB Vice Chair  
 Brent Gerry  
 Celeste Greene  
 Diahann Howard  
 Kim Kearfott  
 Frazer Lockhart  
 Michael Shapiro  
 Jake Washington

### **U.S. Department of Energy Participants:**

William “Ike” White, Senior Advisor for Environmental Management (EM)  
 Cathy Tullis, Chief of Staff, EM  
 Jeffery Avery, Principal Deputy Assistant Secretary, EM  
 Kristen Ellis, Acting Associate Principal Deputy Assistant Secretary for Regulatory and Policy Affairs, EM  
 Ming Zhu, Senior Advisor for Laboratory Policy, EM  
 Delmar Noyes, Office of River Protection, Assistant Manager for Tank Farms Project  
 Joceline Nahigian, Director, Office of Intergovernmental and Stakeholder Programs, EM  
 Kelly Snyder, EMAB Designated Federal Officer, Office of Intergovernmental and Stakeholder Programs, EM  
 Alyssa Petit, Office of Intergovernmental and Stakeholder Programs, EM  
 Michelle Hudson, Office of Intergovernmental and Stakeholder Programs, EM  
 Steve Trischman, Director of Budget and Planning, EM  
 Chris Crowley, Office of Budget and Planning, EM  
 Erik Olds, Director of Communications, EM  
 Darlene Prather, Office of External Affairs, EM  
 Keir-Kevin Curry, Office of External Affairs, EM  
 Rod Rimando, Acting Director, Office of Technology Development, EM  
 Jean Pablo “JP” Pabon, Office of Technology Development, EM  
 Erik Simpson, Idaho Cleanup Project, Communications  
 David Peeler, Deputy Sector Manager, EM  
 Kalee Fenker, Technical Advisor, Savannah River National Laboratory  
 Tom Brouns, Manager, Environmental Management Sector, Pacific Northwest National Laboratory

### **Members of the Public:**

Wayne Barber, Weapons Complex Monitor  
 Kelsey Shank, theEDGE LLC  
 Timothy Smith, President, Governmental Strategies Inc.

## LIST OF ACRONYMS

DOE – U.S. Department of Energy  
EM – (DOE) Office of Environmental Management  
EMAB – Environmental Management Advisory Board  
FACA – Federal Advisory Committee Act  
LM – DOE Office of Legacy Management  
NNLEMS - Network of National Laboratories for Environmental Management and Stewardship  
R&D – Research and Development  
SLAW - supplemental low-activity tank waste  
SRS – Savannah River Site, EM

## MEETING MINUTES

The U.S. Department of Energy's (DOE) Environmental Management Advisory Board (EMAB) met virtually on May 22, 2023. Participants included EMAB members, DOE staff, and members of the public. The meeting was open to the public and conducted in accordance with the requirements of the Federal Advisory Committee Act (FACA).

The meeting was live streamed on YouTube and the recording can be accessed at the following [link](#).

Ms. Kelly Snyder, EMAB Designated Federal Officer (DFO) called the meeting to order and noted that three EMAB members (Jack Craig, Jim Rispoli, and Shelly Wilson) recused themselves from participation in any discussions related to the current charge due to potential conflict of interest.

EMAB Vice Chair Dr. Amy Fitzgerald provided an overview of the meeting's agenda. She noted that EMAB had a limited timeline to complete their charge, but the members thought it was very important to provide input. She introduced Mr. William "Ike" White, Senior Advisor for Environmental Management.

### **Remarks from Senior Advisor for Environmental Management, Ike White**

Mr. White thanked the members for providing feedback so quickly. He said that the charge is important to him because tank waste is the largest environmental liability in the federal government. He noted that the mission and required resources affect the entire complex and any tank waste success at Hanford will have a ripple effect on the other sites' resources.

Mr. White said that investing in research and development (R&D) wisely creates an opportunity to be more efficient and effective. He said the ideas laid out in the initial roadmap are intended to become a long-term program.

Mr. White highlighted recent progress made on the tank waste mission, including running Idaho's Integrated Waste Treatment Unit at capacity, resuming electrical testing for the vitrification plant at Hanford, and releasing a system plan for the Savannah River Site (SRS) that projects a 2037 completion date for their tank waste mission.

Mr. White said the tank waste R&D roadmap serves as a model for what an overall EM R&D roadmap may look like. He said tank waste R&D would be a major component of this strategy, as well as R&D related to soil and groundwater. He said over the next few months, EM will develop a draft charter for an R&D program at the headquarters level. He noted that EMAB's recommendations and perspectives are helpful when creating the broader strategy as well.

Mr. White noted changes to the EM organization chart. Larger site managers now report directly to the EM front office instead of through the Office of Field Operations. The Office of Communications and the Office of Regulatory and Stakeholder Engagement also report directly to the EM front office. Mr. White noted that this realignment is not a major change.

Mr. White thanked the members for their work on the recommendations and emphasized how helpful it is to get their feedback.

### **Public Comment**

One written public comment was received via email:

“i verfy much protest this meeting where only corporations are served. the purpose of any agency set up by the feds is to serve all in america,not just corporations. the fact is withj regulatory capture alredy of this agency,m the corpoationt and this agency partnership have in faCt cancelled out any good that can possibly come for the ordinary citizens of this country and we object to that. we want less corporate involvement. we want the people to have the say on what happens in this country the corporations are focused on profits and greed. we have a powsibility tht the people want rules to keep themselves alive from corporate greed.corporate greed will kill us all if we dont stop it. our govt is supposed to be there to do that. they are failing. i give this agency a grade of zero for its work for the american people. the laxity of virgor for the good of the american people is astonishing. this commetn is for the public record please receipt., b ker”

### **EMAB Recommendation Presentation**

Dr. Fitzgerald thanked the EMAB members that participated in the subcommittee. Special thanks was given to Dr. Ming Zhu, EM’s Senior Advisor for Laboratory Policy, for providing EMAB with the background information necessary to form a recommendation.

Dr. Fitzgerald noted that an adaptive management framework can be useful for complex goals that require an iterative process, such as the tank waste mission. She noted that DOE’s Office of Legacy Management (LM) used an adaptive management plan at the Rocky Flats site in Colorado.

Mr. Frazer Lockhart shared a presentation on the subcommittee’s report. Dr. Fitzgerald said that EM chartered the Network of National Laboratories for Environmental Management and Stewardship (NNLEMS) to develop an R&D roadmap for accelerating Hanford’s tank waste mission. The roadmap identifies projects that could be explored for near-term benefits for immediate cleanup, as well as breakthrough technologies that could be used at other sites as well.

Dr. Fitzgerald said that Congress appropriated \$50 million in funding for EM’s technology development portfolio and implementation of the roadmap. She noted that the roadmap is very lengthy and technical. EM requested that EMAB look at the focus areas identified in this roadmap.

The charge’s first line of inquiry is “Generally, what does the EMAB think of the R&D Roadmap, does the roadmap represent a sound approach for acceleration of the tank waste mission?” Mr. Lockhart said that overall, EMAB is supportive of the roadmap. They believe it demonstrates a comprehensive scope, systematic process, criteria-based ranking, values-based resource prioritization. He noted that the roadmap recognizes that a long-term program is needed to sustain results, and EMAB agrees.

Mr. Lockhart said that the roadmap demonstrates EM's commitment to complete the Hanford tank waste mission in an integrated manner that would accelerate cleanup. He said the roadmap's comprehensive scope considers dozens of alternatives and contributions to a successful tank waste mission. He said the report is focused on improvement and results while considering the flexible and responsive nature of R&D that may have setbacks but can quickly adapt and respond to emerging opportunities. He said EMAB found the roadmap to be straightforward, logical, and visionary, and they appreciated the broad laboratory and university expertise that was leveraged in its creation.

The charge's second line of inquiry is "Generally, do you agree with the priorities represented in Table 4? Which priorities deserve the most attention? Does the EMAB have other suggestions on priorities that do not appear to have been considered?"

Mr. Lockhart said that Table 4 is a comprehensive spreadsheet of various technical areas and technologies considered, as well as how they rank in feasibility, cost, and other criteria. He said the subcommittee found Table 4 to be comprehensive and well done. He noted that the complexity of the table is necessary given the scope.

Mr. Lockhart said EMAB encourages further consideration of priorities for supplemental low-activity tank waste (SLAW), which is important to the Hanford tank waste mission. He suggested that grouting and off-site disposal of SLAW should be a high priority. Other top priorities in the subcommittee's opinion are removing low-level waste from high-level waste, considering out-of-the-box technologies like spent fuel recycling, and combining tank-side pre-treatment and grouting to respond to emergent tank leaks. He said involving regulators and stakeholders in risk-based waste retrieval sequencing will be crucial.

The charge's third line of inquiry is "Are there any metrics the EMAB would recommend to measure success of the R&D program to implement the Roadmap?"

Mr. Lockhart said that it will be important to measure risk reduction to Hanford communities, reduction of the number of cross-site transfers to treatment facilities, and improvements to cost and schedule. Mr. Lockhart noted that metrics are important to Congress to ensure consistent funding and support for the R&D roadmap.

Mr. Lockhart also noted that metrics measuring regulator and stakeholder acceptance could be useful to determine the relative acceptance of competing technologies. He suggested the use of surveys for large and diverse populations. EMAB recommends consulting organizations skilled in gathering public opinion for complex issues. Mr. Lockhart suggested that EM should consider lessons learned from LM's Rocky Flats stakeholder engagement plan for adaptive management. He also suggested a "quick win" metric to advance near-term support.

Dr. Fitzgerald said the subcommittee thought the roadmap could benefit from an implementation timetable, ongoing community and stakeholder engagement, and maintaining the emphasis on high-level waste definition to dramatically reduce costs and accelerate schedule.

Dr. Fitzgerald said that EMAB's report emphasizes the importance of stakeholder engagement and consensus building, sustained support for research areas, and expanding the use of analogies and models to assist with understanding complex issues.

The subcommittee believes that investments in research through the roadmap will benefit the Hanford tank mission. They recommend that lessons learned from tank cleanup at SRS and Idaho are leveraged for Hanford cleanup. Dr. Fitzgerald said the R&D roadmap should complement and integrate the Congressional directive to develop an analytic decision-making framework for SLAW. She said stakeholder engagement for R&D can and should be enhanced using an iterative process such as an adaptive management framework.

Dr. Fitzgerald said the roadmap should be used as a model for addressing cleanup challenges at other sites in the EM portfolio. She noted that EMAB is willing to provide ongoing or a more in-depth review of the R&D roadmap and its implementation.

Mr. White thanked the EMAB members for their work on the recommendations. He noted that this mission will take many years and determining how to successfully manage it and maintain stakeholder buy-in will be challenging. He said that he would like EMAB to look at a headquarters-level R&D roadmap that includes other areas such as soil and groundwater. He said he intends to fold their recommendations into the tank waste roadmap implementation. Dr. Fitzgerald said she is pleased to see that Principal Deputy Assistant Secretary Jeffery Avery and Dr. Zhu participating in the House Nuclear Cleanup Caucus to communicate the great work being done with EM's technology development.

Mr. David Abelson thanked the subcommittee members for tackling the charge. He noted that the LM adaptive management plan referenced in the report is based on the Bureau of Land Management adaptive management plan. He said the LM model for stakeholder engagement has local governments at the center of engagement which enhances both community education and political support.

Dr. Fitzgerald made a motion to approve the subcommittee's report and submit to EM. Mr. Brent Gerry seconded the motion. The present EMAB voted unanimously to pass the recommendation.

Ms. Snyder thanked the attendees for their time and adjourned the meeting.