The Environmental Site-Specific Advisory Board (EM SSAB)

Prepared by the Chairs and Vice-Chairs of all of the EM SSAB Local Boards.

Overview

The Environmental Management Site-Specific Advisory Board (EM SSAB) is the U.S. Department of Energy's (DOE) Office of Environmental Management (EM) program's most effective vehicle for fostering two-way communication between DOE-EM and the communities it serves. The EM program is the world's largest environmental cleanup program, and the EM SSAB its only citizen advisory board. For more than 20 years, the volunteer citizens of the EM SSAB have partnered with EM officials at both the local and national levels to ensure that the public has a meaningful voice in cleanup decisions.

Public participation is required/recommended as part of a number of environmental regulations. It is also good business practice, resulting in better decisions that often result in improved cleanup. Over the past two decades, EM SSAB members have volunteered over 48,000 hours of their time and submitted to EM officials over 1500 recommendations, 88% of which have been fully or partially implemented, resulting in improved cleanup decisions.

The EM SSAB comprises approximately 200 people from communities in Georgia, Idaho, Kentucky, Nevada, New Mexico, Ohio, Oregon, South Carolina, Tennessee and Washington. The Board is cumulatively representative of a stakeholder population totaling millions of people who are affected by generator sites, transportation routes and disposal sites. As we move toward a new administration in early 2017, the EM SSAB welcomes the opportunity to highlight the value of this unique volunteer board and discuss its priorities during the months and years ahead.

Who We Are

The EM SSAB consists of eight local boards, one at each of the major EM cleanup sites. Our boards are made up of representative members of local citizens, Native American tribes and community and public interest groups that provide recommendations to EM on its cleanup program.

Local site board membership comprises primarily people drawn from those communities impacted by site cleanup activities and represent a full diversity of views, cultures, demographics and relevant interest groups found in those communities.

The EM SSAB's activities are governed by the Federal Advisory Committee Act (FACA), which serves to ensure that the general public has access to advisory board deliberations and recommendations. While EM SSAB is considered a single advisory board, eight local boards have been organized under its umbrella charter. They are the Hanford Advisory Board, Idaho National Laboratory Citizens Advisory Board (CAB), Northern New Mexico CAB, Nevada SSAB, Oak Ridge SSAB, Savannah River Site CAB, Portsmouth SSAB and Paducah CAB.

Our Mission

The EM SSAB was created to involve stakeholders more directly in EM cleanup decisions. Public input helps agencies to reach decisions that are cost-effective, community-specific, and environmentally sound; these benefits lead, ultimately, to cleanup results that are faster and safer. The citizens who

make up the individual boards at each DOE-EM site are committed to helping EM to make the best decisions possible, and to ensure a cleaner and safer environment for future generations.

How We Operate

In accordance with its charter, the EM SSAB exists to provide the Assistant Secretary for EM, the appropriate site manager(s), and any DOE officials the Assistant Secretary designates, with information, advice, and recommendations concerning issues affecting the EM program at those sites. Specifically, at the request of the Assistant Secretary or the site managers, the Boards may provide advice and recommendations concerning the following EM site-specific issues: (1) cleanup standards and environmental restoration; (2) waste management and disposition; (3) stabilization and disposition of non-stockpile nuclear materials; (4) excess facilities; (5) future land use and long term stewardship; (6) risk assessment and management; and (7) cleanup science and technology activities.

Our Current Priorities

- Workforce Development
- Groundwater Remediation and Protection
- Reopening WIPP and Identification of a High-level Defense Legacy Waste Repository
- Solid Waste Disposition
- Tank Waste Remediation and Disposal
- Accelerated Cleanup and Technology Development
- Waste Transportation and Infrastructure
- Site Restoration, Transition, and/or Reuse
- Stakeholder Engagement and Public Involvement

A discussion of each priority appears below.

Workforce Development

A vibrant workforce is essential to complete EM's mission. EM employs more than 30,000 Federal and contractor workers. The current workforce is aging and retirement eligibility is high, as baby boomers retire from full-time employment. That leaves a gap in the workforce that must be filled with capable, bright, and motivated employees who are focused and able to carry out long-term projects.

When employees opt to retire, it is imperative that their skills be passed onto to a new team. The workforce is on the cusp of a new generation of employees; being mindful of enhancing recruitment techniques and making job benefits more desirable are critical in maintaining the best workforce possible.

In addition, recruiting at targeted colleges, universities, and technical and trade schools can help attract new prospects. For example, at the Savannah River Site, site contractors are pairing up with local technical colleges and universities to offer specific education programs that prepare new employees for careers at the site.

Recommendation: Continue support to programs that promote development of a new workforce, such as partnership with universities and colleges, trade schools, internships, traineeships, and other programs.

Groundwater Remediation and Protection

Communities which were the sites of production and testing of radioactive materials contain the residue of that activity. Residents near these sites remain vulnerable to the movement of radioactive and chemical residues, carried by natural processes into their water supply. Area residents expect assurance that the water from their wells, municipal water sources and nearby bodies of water are safe for drinking and human contact.

Recommendation: Accelerate efforts to remove sources of legacy contamination that currently threaten public water supplies; develop and maintain up-to-date, publically accessible information that displays maps of contaminated areas, directional flow and estimated time horizon of localized contamination; fund and support development of site-wide groundwater models and research activities on new technologies for groundwater remediation.

• <u>Reopening of the Waste Isolation Pilot Plant (WIPP) and the Identification of a High-Level Defense</u> <u>Legacy Waste Repository</u>

Safe disposal of transuranic waste needs to be a priority for DOE. WIPP was created to safely and reliably dispose of this waste, and did so from 1999 to February 2014. WIPP has been operating since 1999 as the only underground repository for transuranic (TRU) waste disposal. Having the WIPP facility available for TRU waste disposal has been shown to be extremely important for safe and reliable disposal of TRU waste. Unfortunately, there is no current repository available in the government to dispose of some waste streams, such as Nuclear Regulatory Commission (NRC)-regulated "Greater-than-Class C" wastes and high-level waste.

Recommendation: Resume safe WIPP operations as soon as possible; provide additional aboveground storage and below-ground repository space for TRU waste at WIPP; consider allowing WIPP to accept NRC-regulated "Greater-than-Class C" waste. Identifying a site for a High-level Defense Legacy Waste Repository is crucial.

• Solid Waste Disposition

As EM fulfills its mission, waste and materials disposition plays a vital role in the cleanup of radioactive waste and the environmental legacy of nuclear weapons production and nuclear energy research. Disposal of waste frequently falls on the critical path of cleanup projects. Significant planning resources are spent to identify alternatives and to find paths that are cost-effective and in the best interest of the Federal government. In many instances, waste disposition--processing, treatment and disposal--is part of cleanup agreements requiring the oversight of regulators and is of great interest to stakeholders, including the EM SSAB.

Recommendation: Place a high priority on and seek local government input in the federal decisionmaking process with respect to finding local disposal solutions for solid waste.

• Tank Waste Remediation and Disposal

As of April 2016, EM housed approximately 88 million gallons of highly radioactive and chemical liquid waste stored in underground tanks and an additional 4,000 cubic meters of similarly contaminated

stores of solid waste. These persistent materials pose a consistent threat to the environment, to those working on these sites, and to the extended communities around these sites.

Without adequate funding to address the technological and safety cleanup issues associated with these wastes, current cleanup delays will only be exacerbated. Cleanup delays are costly--not just in dollars but in potential risks to human health and the environment.

Recommendation: Provide increased support to allow the affected sites to fulfill their current milestone obligations; address problems associated with the deterioration of on-site storage facilities; provide funding to take advantage of accelerated (albeit unanticipated) tank waste cleanup; provide sufficient funding to protect the environment from nuclear and chemical tank waste and identify responsible and sustainable paths for the safe disposal of nuclear waste.

<u>Accelerated Cleanup and Technological Development</u>

Consistent with the DOE-EM goal of completing cleanup work and transitioning facilities and sites to other uses, DOE-EM should identify and take advantage of those situations where increased funding might allow accelerated cleanup and closure of a site and avoidance of longer-term operations or surveillance and maintenance costs. This might require funding decisions to be made on a life-cycle cost basis, in addition to a risk basis.

New technologies and techniques continue to emerge, and some may be beneficial to the EM program. DOE-EM should continue to aggressively attempt to identify areas of opportunity to develop and deploy these new methods, but should be mindful of the risks of deploying new technologies in high-risk environments. Decisions to select potential technologies should be based on sound technical and scientific review processes, rather than through the competitive bidding process. Project plans and associated funding should identify the necessary testing and validation from bench scale through full scale pilot testing where appropriate. Each DOE-EM site has its set of unique site specific challenges in this area. For example, in Idaho, a calcined form of high-level waste exists that may require innovative technologies for removal from storage as well as additional treatment after it is retrieved; ultimately it must be removed from the state.

Furthermore, we must not only know the final waste form requirements, but we must also identify and prepare to deploy the technology to achieve the required form. The long lead times associated with such developing processes demand that attention be given to them now.

Recommendation: Continue a vigorous technology development effort to effectively identify new and emerging technologies for testing and deployment to support EM missions.

• Waste Transportation and Infrastructure

Over the years of transporting radioactive hazardous materials and waste to appropriate disposal facilities, EM, in conjunction with the DOT, has done a remarkable job. In FY 2015, EM completed 17,000 shipments covering 3,400,000 million miles without incident or accidents.

The movement of radioactive materials sometimes creates public confusion. The public has been educated that radioactive signed items are to be avoided and generally does not understand what to do in the presence of trucks bearing these signs.

Recommendation: Design transportation procedures that will simultaneously encompass federal and state transportation regulations regarding the transportation of radioactive material, as well as educate the public regarding the overarching principles contained in those procedures; undertake a review of radioactive signage with the goal of providing clarification to the general public of the meaning of various vehicular radioactive signs.

• Site Restoration, Transition, and/or Reuse and Long-Term Stewardship

EM has been actively pursuing environmental remediation goals across the complex since the 1980s. Today, DOE's site missions include environmental cleanup, waste disposition, groundwater and soil remediation, deactivation, decontamination and decommissioning of inactive facilities, and long-term stewardship. This work includes sustainability projects to ensure that these activities are completed efficiently and effectively, reducing significant risks and life-cycle schedules and costs in the D&D program.

After environmental cleanup activities are completed, many parcels of land within the complex will be available for reuse with a range of uses up to and including heavy industry. The end state is the condition of the site when remediation is complete and appropriate property can be released for community development.

A site's end state vision is driven by the current and expected future land use of areas at and around a remediation project. Through multifaceted community outreach programs, like those at the Portsmouth and Paducah sites, EM continues to work diligently with stakeholders to understand their community's end-state vision for the impacted site. With the assistance of the end state vision projects and interaction with the local Site Specific Advisory Board, elected officials, economic development professionals and others, a community's vision for future use becomes clear. This clear vision provides EM with a defined finish line and mileposts for a successful cleanup project. An example of such a success story is the East Tennessee Technology Park (former K-25 Gaseous Diffusion Plant) where reindustrialization has incrementally occurred on some land parcels while remediation continues on other land parcels.

After cleanup is completed and Long-Term Stewardship (LTS) plans are in place, LTS responsibilities are carried out by the DOE program responsible for on-going mission at the site. When a site's mission ends, DOE's Office of Legacy Management (LM) ensures LTS for the site.

Recommendation: Engage communities early and often in defining and continually honing the future vision of their respective sites; develop a framework that helps establish the cleanup levels required for remediation based on risk in future use; provide a comparison between the site's potential end state vision and the current cleanup baseline strategy; include maps and figures that can be used to ensure that cleanup decisions are consistent with the end state vision; develop a "phased approach" to reindustrialization, ensuring that development efforts are made in tandem with progress in remediation. For LTS activities, engage the impacted communities early and often by providing educational sessions to inform these communities of the roles and responsibilities associated with LTS.

<u>Continued Stakeholder Engagement</u>

The EM SSAB and the local boards under the EM SSAB umbrella depend on continuing support from EM to ensure citizens and boards can provide meaningful, values-based recommendations and advice to EM on policy decisions and issues regarding EM legacy waste cleanup across the entire complex. Any decrease in the various Board's budgets is contrary to EM's stated goal to increase transparency, receive and consider public opinion and stimulate active involvement of the public in the setting of budget priorities.

Recommendation: Fully fund the EM SSAB and the local advisory boards so that their important work can continue. Ensure that the semiannual chairs' public meetings continue; provide opportunities for EM SSAB members to increase their understanding of the issues facing the EM cleanup program via attendance at technical conferences and symposia.

Conclusion

Members of the EM SSAB are citizens who live, work, and play near EM sites, and volunteer thousands of hours each year because of their deep commitment to the EM program and to their communities. These boards are dedicated to continuing this important work, and ask the EM program and the Department of Energy to continue their support to the EM SSAB.

We appreciate the opportunity to submit this document to the administration transition team and look forward to continuing to provide public values to be considered in cleanup decisions across the EM complex.

For more information, please contact David Borak, EM's Designated Federal Officer for the EM SSAB, who can direct you to individual Board Chairs and Vice-Chairs.

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Steve Hudson, Chair Hanford Advisory Board

WSBOP

Herb Bohrer, Chair Idaho National Laboratory Site EM CAB

Mund

Steve Rosenbaum, Chair Nevada SSAB

Dougles M. Sayre

Roludia Purcie

Douglas Sayre, Chair Northern New Mexico CAB

Belinda Price, Chair Oak Ridge SSAB

Renie Barger

Renie Barger, Chair Paducah CAB

Kophing Deling

Harold Simon

Bob Berry, Chair Portsmouth SSAB Harold Simon, Chair Savannah River Site Citizens Advisory Board