

A History of the Environmental Management Advisory Board: 20 Years of Service and Partnership - 13219

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"The contribution of this board has been extremely important. We appreciate everything you do, and I think it all goes to show how working together can really benefit the American people. We thank you all very much for your service."

- Jim Rispoli, Assistant Secretary for the Office of Environmental Management

The Environmental Management Advisory Board (EMAB or Board) was chartered under the Federal Advisory Committee Act (FACA) in 1992 to provide the Assistant Secretary for Environmental Management (EM) with independent and external advice, information, and recommendations on corporate issues relating to accelerated site clean-up and risk reduction throughout the EM complex. Over the course of the past 20 years, the composition and focus of the Board have varied widely to address the changing needs of the program.

EMAB began as the Environmental Restoration and Waste Management Advisory Committee, formed to provide advice on an EM Programmatic Environmental Impact Statement. In 1994, the Board was restructured to function more as an executive-level, limited member advisory board whose membership provides insight of leading industry experts and the viewpoints of representatives from critical stakeholder constituencies.

Throughout the 20 years of its existence, EMAB has covered a wide variety of topics and produced nearly 200 recommendations. These recommendations have resulted in several policy changes and improvements within EM. Most recently, EMAB has been credited for its contribution to the EM Energy Park Initiative, forerunner of the DOE Asset Revitalization Initiative; creation of the EM Offices of Communications and External Affairs; improvement of acquisition and project management strategies and culture; and several recommendations related to the Waste Treatment Plant and the tank waste programs at Hanford and the Savannah River Site.

The wealth of experience and knowledge the Assistant Secretary can leverage through utilization of the Board continues to support fulfillment of EM's mission. In commemoration of EMAB's 20th anniversary, this paper will provide further context for the evolution of the Board, the role FACA plays in its administration, and a look at the members' current objectives and EM's expectations for the future.

Introduction

The Environmental Management Advisory Board (EMAB or Board) was established in 1992 to provide the Assistant Secretary for Environmental Management (EM) with independent advice and recommendations on how to effectively implement the EM program and overcome obstacles and challenges that threaten the program's timely success. The Board's activities are governed by the Federal Advisory Committee Act (FACA), which ensures that its deliberations and work are transparent to the public. Members are drawn from a variety of backgrounds – including the private sector, academia, regulatory agencies, and state, local, and tribal governments – and each brings a different facet of expertise to the Board's contributions.

In the past 20 years, EMAB's work has evolved to accommodate the progression of the EM program and the changing needs of its leadership. At times, this has required changes in its composition and even a realignment of its operations to better suit current demands. What began as a committee of nearly 30 members, convened to help ensure that impacted parties had a seat at the table in EM's decision-making processes, has been continually refined and ultimately restructured as an executive-level board of leading industry experts and representatives from critical stakeholder constituencies.

The wealth of experience and knowledge the Assistant Secretary can leverage through utilization of the Board continues to support fulfillment of EM's mission. EM's partnership with the Board represents the institutionalization of external input as a key component of the program's policy and management review process. In addition, the Board's structure establishes a mechanism to make expert counsel available to the Assistant Secretary and individual EM program office managers, and provides a framework for consideration of broader, national concepts and strategies which can be integrated with site activities.

In commemoration of EMAB's 20th anniversary, this paper will provide further context for the evolution of the Board, the role FACA plays in its administration and a look at the members' current objectives, and trajectory for the future.

History and Evolution

As the EM program began to take off in the early 1990s, it became clear that its mission would not be successful without stakeholder support and involvement. Gaining that support would require a degree of unprecedented transparency and communication. DOE engaged in the Federal Facilities Restoration Dialogue (also known as the Keystone Dialogues), in partnership with the Department of Defense and other agencies, to dispel distrust in DOE's mission and establish institutionalized avenues for stakeholders to become directly involved in the program's decision-making processes.

To continue forward the spirit of the Keystone Dialogue, DOE chartered the Environmental Restoration and Waste Management Advisory Committee (EMAC) under FACA in 1992 to engage individuals from industry, academia, and state, local, and tribal

governments and agencies impacted by EM activities. EMAC's primary purpose was to provide input and recommendations on the EM Final Waste Management Programmatic Environmental Impact Statement (PEIS).¹ The charter also allowed for the Assistant Secretary to task the committee with review of other projects as needed.

As EM matured, it became clear that its mission would become increasingly complex and costly. With the continued operation of the State and Tribal Government Working Group (STGWG)² and the creation of the EM Site-Specific Advisory Board (SSAB)³ – both established as a result of the Keystone Dialogues as well – EM advanced and further strengthened conduits for stakeholder involvement in site activities and decisions. What was needed was greater assistance at the executive-level that could capture a broader, complex-wide perspective and help optimize management across the complex. Under the direction of Assistant Secretary Tom Grumbly, EMAC was rechartered in 1994 as EMAB, an “unofficial board of directors” that could serve as counsel to EM's management team, convened more for the purpose of assisting with corporate strategies and policy. Membership recruitment focused more heavily on obtaining expertise in the fields of Science, Technology, Business Management, Contracting, etc., versus representation of stakeholder constituencies and interests, especially when those perspectives were captured through other advisory bodies, such as the EM SSAB and intergovernmental entities like STGWG.

The newly-rechartered board was modeled largely after the Environmental Protection Agency's Science Advisory Board, characterized by limited membership and a flexible subcommittee organization that could reconfigure itself to address the changing needs of EM management. Several EMAB subcommittees have been convened and dissolved over the past two decades. Their foci have included: Technology Develop and Deployment; Worker Health and Safety; Budget; Science and Technology; Transportation; Long-Term Stewardship; Strategic Planning; Alternatives to Incineration; Recycling; Human Capital; Communications; and Acquisition, Contracting, and Project Management. Members have become trusted advocates for EM and invaluable resources for EM managers looking for innovative solutions and applicable best practices for the program's unique mission and challenges.

¹ United States US Department of Energy, Office of Environmental Management. *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste*. Washington, DC: U.S. Department of Energy, Office of Environmental Management, 1997.

² The State and Tribal Government Working group contains representatives from the Federally recognized tribes that are affected by EM sites and representatives from state government agencies in states affected by EM sites.

³ The EM SSAB was chartered to assist the Assistant Secretary for Environmental Management, Site and Field Managers, and any person the Assistant Secretary designates to receive such information, with advice and recommendations concerning site-specific issues. EM SSAB's activities are governed under the Federal Advisory Committee Act (FACA). *Charter of the Environmental Management Site-Specific Advisory Board*, April 11, 2012, <http://energy.gov/sites/prod/files/em/EMSSABCharter-FINAL.pdf>.

EMAB and the Federal Advisory Committee Act

EMAB's activities are governed by FACA, which was enacted in 1972 to ensure that the general public has access to advisory board deliberations and recommendations. Operating within FACA's framework is not only a legal requirement, but it is also an undertaking that upholds the spirit of openness and inclusivity that EM's mission has sought to embody.

FACA requires that advisory board membership be "fairly balanced in terms of the points of view represented and the functions to be performed."⁴ Under EMAB's current configuration, the Board's membership may consist of up to 15 members, comprised of recognized private industry experts and individuals from scientific and academic communities, regulatory entities, and stakeholder organizations knowledgeable about the EM mission and its field sites. Its definition of membership balance is not static given the broad, changing nature of EMAB's mission; the types of expertise and viewpoints needed is reviewed annually during membership recruitment and aligned with the current charges assigned to the Board.

EMAB members fall in to two categories:

1. Those recruited for their specific, individual expertise are appointed as Special Government Employees.
2. Those recruited to obtain the viewpoint of their particular organization/affiliation (i.e. Tribal nations or associations, state or local governments, etc.), are appointed as Representatives.

Arguably, the greatest benefit provided by EMAB, or any advisory committee, is the independence of its advice. Therefore, ensuring the integrity of EMAB's work products is critical. All board members serve without compensation and are required to recuse themselves from participation in any Board deliberations or other activities that would have a direct and predictable effect on the companies, organizations, agencies, or other entities with whom they are personally associated or in which you have a financial interest. Additionally, SGE members are subject to DOE conflict-of-interest statutes and regulations, and file confidential financial disclosure reports annually that are scrutinized by DOE's Office of General Counsel.⁵

EMAB meetings are open to the public and are held at EM sites throughout the country in order to provide an opportunity for local stakeholders to attend the proceedings and interact with the members. Each fiscal year (FY), the Assistant Secretary utilizes one of these public forums to provide EMAB with a list of topics for the members' analysis. In order to fulfill its charges, members convene subcommittees, which are used to conduct fact-finding missions and draft reports and recommendations for the full Board's

⁴ Federal Advisory Committee Act, Pub. L. 92-463, § 1, Oct. 6, 1972, 86 Stat. 770, as amended 5 U.S.C.App. §5(b)(2).

⁵ See US Department of Energy, Office of Management, *Advisory Committee Management Manual*, DOE M 515.1-1, October 22, 2007. <http://energy.gov/sites/prod/files/em/m5151-1.pdf>.

consideration. In accordance with FACA, subcommittees can meet and conduct their work outside of the public meeting setting.⁶ However, the members are required to characterize their subcommittee work and reserve substantive deliberations on proposed recommendations for full, public Board meetings.

Impacts on the EM Program

Throughout the 20 years of its existence, EMAB has covered a wide variety of topics and yielded nearly 200 recommendations, the majority of which have either been partially or fully implemented by EM leadership.⁷ More than 150 of those recommendations were submitted to the Office of the Assistant Secretary within the past 6 years alone. Any significant program outcomes associated with the Board's work are contingent upon the scope of assigned activities and vary from year to year, based on the needs of the Assistant Secretary.

EMAB subcommittees are established on an ad-hoc basis to address specific topics identified for the Board's current Fiscal Year (FY) focus, and sunset as their work is completed. In recent years the Board's subcommittees have addressed such topics as Communications, Acquisition, Project Management, Quality Assurance, Strategic Planning, Discretionary Budgeting, Technical Uncertainty and Risk Reduction, and Human Capital Initiatives, and have provided invaluable guidance to the Assistant Secretary. Highlights from the Board's most recent accomplishments are included below.

Acquisition and Project Management

The Acquisition and Project Management Subcommittee (APMS) is one of EMAB's longest standing work groups. Drawing on the Board members' extensive private industry experience, the APMS has provided recommendations pertaining to the establishment of an organizational culture that promotes project ownership and accountability.⁸ The Board's guidance aided EM in developing an integrated business system, the EM Acquisition Center, to support field offices in managing major EM acquisitions and organize projects under integrated project teams. Additionally, the Board recommended that EM introduce granularity into the small business selection process to ensure that EM's small business acquisitions comprise the appropriate core competencies, size, and bench strength, aiding EM in its efforts to successfully meet ambitious small business goals.⁹ The APMS has also played an integral role in

⁶ Federal Advisory Committee Act, as amended, 5 U.S.C.App., FACA Implementing Regulations, 41 CFR § 102-3.195, 2001.

⁷ Committee Management Secretariat. "Annual Report." Federal Advisory Committee Act Database, 2012. <https://www.fido.gov/facadatabase/logon.asp>.

⁸ EMAB EM-APMS, *Acquisition and Project Management Report: Small Business, Acquisition, and Project Management*, 2008.

<http://energy.gov/sites/prod/files/em/Report1SmallBus.Acquisition.ProjectMgmt.pdf>

⁹ EMAB EM-APMS, *Acquisition and Project Management Report: Small Business, Acquisition, and Project Management*, May 2008.

<http://energy.gov/sites/prod/files/em/Report1SmallBus.Acquisition.ProjectMgmt.pdf>

consulting with senior managers as EM restructured its project management portfolio over the past several years in order to improve the service delivery of the program's construction projects and operational activities.

Communications

EMAB's Communications Subcommittee produced a report¹⁰ in September 2006 recommending the establishment of a permanent communications position in the Office of the Assistant Secretary and encouraged EM to incorporate communications into all aspects of decision-making. Additionally, EMAB recommended that EM expand its outreach efforts to broader stakeholder audiences, update publications and informational materials that help promote the EM mission, and utilize creative tools and methods to improve internal communications inspired by the members' own corporate experiences. Based on this guidance, EM has made significant strides in fulfilling the communications vision articulated in the Board's recommendations. In January 2008, EM established the Office of Communications and External Affairs with a director that reports directly to the Assistant Secretary. The Office has since added a number of career professionals and political appointees with experience in government communications. EM's "messaging" with key constituents and the media has also become stronger and better coordinated.

Strategic Planning

EMAB has approached the topics of strategic planning, discretionary budgeting, and technical uncertainty and risk reduction through a number of different subcommittees over the past several years and focused its reports and recommendations on expanding EM's arsenal of analytical budgeting and strategic planning tools. In particular, the Board has continued to champion the development and incorporation of business case scenarios and more comprehensive data points into EM's budget request and baseline development processes.¹¹ EM's Office of Program Planning and Budget has since developed strategic modeling capabilities and new processes for formulating budget requests, utilizing tools such as the analytical building blocks to develop priority list inputs from the sites and linking budgeting with strategic planning. The use of these budget tools helped the program become more nimble and able to adapt to changing budget environments. Shortly after EMAB submitted its recommendations on discretionary budgeting and strategic planning, EM received \$6B in additional funding under the American Recovery and Reinvestment Act (ARRA), and was poised to capitalize on the opportunities the ARRA money produced.

Human Capital

The Human Capital Subcommittee has helped EM strengthen its organizational culture by recommending actions to improve employee morale and promote career development,

¹⁰ EMAB EM-Communications Subcommittee, *EM Communications Report*, August 24, 2006. <http://energy.gov/sites/prod/files/em/EMCommunications.pdf>.

¹¹ EMAB EM-Discretionary Budgeting Subcommittee, *Report: Discretionary Budgeting*, September 2007. <http://energy.gov/sites/prod/files/em/Report6-DiscretionaryBudgeting.pdf>.

such as service recognition programs, mentoring programs, and management training modules.¹² The Board has also provided advice based on the members' private sector experience to improve employee recruitment and retention efforts, in an attempt to make EM an employer of choice. Talent acquisition and succession planning are critical areas that will continue to benefit from EMAB's attention and expertise.

Asset Revitalization

EMAB played a significant role in the early days of what has become the DOE Asset Revitalization Initiative. Members provided recommendations and counsel to help EM managers conceptualize strategies for enlisting Departmental support for asset revitalization and expand their vision beyond opportunities to sustain the local communities near EM facilities, but also support greater Departmental missions of energy security and production.¹³

Current Scope

In recent years, EMAB's level of activity has reached new heights. The last four years in particular provide an interesting snapshot of the increasingly complex issues for which EM has enlisted the Board's assistance, and the variety of recommendations proffered by the members.

Tank Waste Subcommittee

The Tank Waste Subcommittee work occurred in both FY 2010 and FY 2011, and the scope of work given to the Subcommittee represented the most detailed and technically-based work ever given to the EMAB body.

In 2010, Energy Secretary Chu was looking to form an independent body to evaluate certain portions of the Waste Treatment Plant (WTP), and then later, the tank farm program at Savannah River Site and Hanford. In lieu of establishing an additional independent advisory board under the FACA, it was decided that the expertise already present on EMAB could address the issue.

Phase 1 work focused on three issues: verification of closure of WTP External Flowsheet Review Team (EFRT) issues and the Hydrogen in Piping and Ancillary Vessels (HPAV) issue, a WTP technical design review, and potential WTP improvements.¹⁴ The Board submitted a total of 20 recommendations in this report.¹⁵ In response to the report,

¹² EMAB-EM Human Capital Subcommittee, *Report: EM Human Capital*, September 25, 2008.

<http://energy.gov/sites/prod/files/em/Report5-HumanCapital.pdf>.

¹³ EMAB-EM Strategic Planning Subcommittee, *Report: EM Energy Park Initiative*, April 29, 2009. Need citation added for EPI report. <http://energy.gov/sites/prod/files/em/April2009EMABEPIReportFINAL.pdf>.

¹⁴ See EMAB-EM TWS WTP-001, *EM Tank Waste Subcommittee Report for Waste Treatment*, September 30, 2012, page 1.

<http://energy.gov/sites/prod/files/em/Final4-Oct-10EMABTankWasteSubcommitteeFullReport.pdf>.

¹⁵ *Ibid* at 9-10, 17, 35-8.

Assistant Secretary Inés Triay noted by letter that "I am extremely impressed with the ability of the TWS to be able to complete this effort in the short amount of time available for this task, and for the insights the TWS has provided for the completion of this important project."¹⁶ Further, the Federal Project Director and the Deputy Secretary would integrate some of the EMAB recommendations into improvements to WTP.¹⁷

Phase 2 work focuses on seven issues concerning the tank farms at Hanford and SRS: modeling for life cycle analysis; Low-Activity Waste forms; at-tank and in-tank technologies; melter technologies; reliability of waste delivery plans; other tank waste vulnerabilities; and the 2020 Vision (to start up one LAW melter early).¹⁸

The Subcommittee submitted a record number of 43 recommendations for Phase 2 of the tank waste review. This number included four overarching recommendations, and several recommendations pertaining to each of the individual charges. EM continues to evaluate and incorporate these recommendations into decisions and processes. Several have been incorporated into the decision-making process within the Office of Tank Waste & Nuclear Material.¹⁹ Additionally, the Charge 7 findings of the report were cited in a DOE IG report on the 2020 Vision proposal from the Office of River Protection.²⁰ The EMAB report was also reviewed as part of Secretary Chu's independent technical review of the Black Cells at the Waste Treatment Plant.²¹

Acquisitions & Project Management Subcommittee

Since FY 2009, the APMS has been tasked with a variety of topics related to improving the contracting and procurement mission of EM. The Subcommittee is still active for FY 2013, demonstrating its continued value. In FY 2009, the Board reviewed the management and efficiency of EM's Construction Projects.²² In their report to EM, they outlined several recommendations related to improving EM's Quality Assurance program and its overall corporate business structure. Some of these recommendations coincided with recommendations from the National Association of Public Administration (NAPA)

¹⁶ See Response from Ines R. Triay, Assistant Secretary for EM to EMAB, *Response to the September 20, 2010 Report Submitted by the TWS of the EMAB on the Waste Treatment and Immobilization Plant*, January 24, 2011.

<http://energy.gov/sites/prod/files/em/FinalSignedMemoResponsetoSept2010TWSReport.pdf>.

¹⁷ Ibid.

¹⁸ See EMAB-EM TWS WTP-003, *EM Tank Waste Subcommittee Report for SRS/Hanford Tank Waste Review*, June 23, 2011, page iii.

<http://energy.gov/sites/prod/files/em/EMABTankWasteSubcommitteeReportforSRS-HanfordTankWasteReview.pdf>.

¹⁹ See Picha, Ken. *Tank Waste Strategy Update*. EMAB Meeting, Department of Energy, Washington, D.C. December 3, 2012. <http://energy.gov/sites/prod/files/Picha%20EMAB%20Presentation1b.pdf>.

²⁰ See <http://energy.gov/sites/prod/files/IG-0871.pdf>, page 5.

²¹ See generally <http://energy.gov/articles/energy-department-announces-new-technical-review-assess-black-cells-hanford-s-waste>

²² See EMAB-EM APMS, *Report: Acquisition, Project Management, and Quality Assurance*, September 30, 2009.

<http://energy.gov/sites/prod/files/em/Report-AcquisitionProjectManagementandQualityAssurance.pdf>.

about EM's structure. In response to these reports, EM changed its business model to increase the focus on business acquisitions, human capital, and budget.²³

In FY 2010, APMS was tasked with "observations and recommendations regarding EM's updated strategy for reducing project and contract risks, and removing EM projects from the Government Accountability Office's (GAO's) High Risk List."²⁴ EM's response to their recommendations was complementary, citing its agreement with their recommendations. Assistant Secretary Inés Triay noted by letter that EMAB's contributions to contracts and project management were part of several EM successes in those arenas.²⁵

In FY 2011, APMS continued their earlier work on EM's removal from the GAO High Risk List, however, they were given additional work to explore. The Subcommittee examined the effective utilization of all contracting approaches available to EM to meet changing and complex task requirements. This included an analysis of M&O or M&O hybrid contracting structures.²⁶

In FY 2012, APMS was given a new task: to analyze a proposed EM policy and protocol related to EM's Operations activities. While EM has a heavy focus on program management for capital projects, the Operations activities constitute a significant portion of EM's portfolio. In response to a request from Congress, EM developed a criteria for distinguishing capital asset projects from operation activities and how project components are managed.²⁷ APMS was asked to reviewed this criteria. This work is still ongoing, as EM had not completed all documentation related to this project, and as such, this work continues into FY 2013.

Risk Subcommittee

In December 2011, the EMAB was tasked with the analysis of two topics related to stakeholder engagement in the EM program. The first task was to analyze the product created by the Consortium for Risk Evaluation with Stakeholder Engagement (CRESP), a multi-university entity.²⁸ The second was to analyze how a National Academy of

²³ See Response from Ines R. Triay, Assistant Secretary for EM to EMAB, *Response*, March 3, 2010. <http://energy.gov/sites/prod/files/em/Response%283-3-2010%29.pdf>.

²⁴ See EMAB-EM APMS, *Report: Removal of EM Projects from the GAO High Risk List: Strategies for Improving the Effectiveness of Project and Contract Management in the Office of Environmental Management*, December 5, 2011, page 1. <http://energy.gov/sites/prod/files/em/EMABAcquisition-ProjectMgmtFinalReport.Dec2011.pdf>.

²⁵ See generally Response from Ines R. Triay, Assistant Secretary for EM to EMAB, *Response to the Report Submitted by the APMS of the EMAB*, November 1, 2010. <http://energy.gov/sites/prod/files/em/Response-AcquisitionandProjectManagement%2811-1-2010%29.pdf>.

²⁶ See generally EMAB-EM APMS, *Report: Removal of EM Projects from the GAO High Risk List: Strategies for Improving the Effectiveness of Project and Contract Management in the Office of Environmental Management*, December 5, 2011. <http://energy.gov/sites/prod/files/em/EMABAcquisition-ProjectMgmtFinalReport.Dec2011.pdf>.

²⁷ See EMAB Minutes. May 31, 2012. Page 9. http://energy.gov/sites/prod/files/em/EMAB_31_May_2012080112.pdf

²⁸ See generally CRESP, *Cresp Overview*, <http://www.cresp.org/about-2/overview-graphic/>.

Sciences (NAS) report on sustainability, compiled for the EPA, could be used in EM as discussions of sustainability measures occurred with EM stakeholders.²⁹

The CRESP product was a risk-informed prioritization tool for EM's Oak Ridge Office, assigning a risk rating (to evaluate the severity of the associated human health and environmental risks) and a risk management rating (to evaluate the effectiveness, capacity and efficiency of risk mitigation approaches) for specific Oak Ridge EM projects. The goals of CRESP's effort include: (1) enabling decision-makers to focus on temporal aspects of risk and risk mitigation strategies (2) ensuring transparency in the evaluation process; and (3) facilitating the consideration of exogenous factors (*e.g.*, funding availability, institutional priorities, and existing contracts) in developing risk-informed prioritization rankings. EMAB evaluated the applicability of this CRESP system/process for risk-informed decision making at other EM cleanup sites.

The NAS sustainability report develops an operational framework for sustainability, and how the risk assessment/risk management paradigm should be integrated into this new framework. The report also looks at what scientific and analytical tools will be required for this framework, as well as what type of expertise will be needed. This report is being used to create a broader NRC study, which is being developed in order to create a decision framework to aid all federal agencies.

The CRESP work is not yet completed, nor is the NAS Sustainability work, so the overall effectiveness of the EMAB work cannot be fairly measured. However, the interim work done by the Risk Subcommittee is part of the overall discussion with stakeholders occurring within EM.

Looking Forward

While EMAB has experienced many successes in their 20 years, their potential to continue to assist the EM program is just starting to be realized. From the technical complexity of the Tank Waste work to some more policy-oriented recommendations such as the creation of the Office of External Affairs, their unique expertise continues to provide benefit to the EM program and its decision-making process.

The role of EMAB is a far different one than that of the EM SSAB. However, with its expert makeup, and representation from several of EM's major intergovernmental, regulatory, and stakeholder communities, the EM management can benefit different with a smaller sized board that provides the best of regulatory, academic, government, and private industry to provide unconventional responses to the challenges of cleaning up the legacy of the Cold War.

²⁹ See EMAB-EM Risk Subcommittee, *Interim Report: Incorporating Risk and Sustainability into Decision Making*, December 3, 2012. <http://energy.gov/sites/prod/files/RiskInterimReport.pdf>.

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