

OES 2024-02-P3

September 2024

## Managing an Accident Investigation Board Part 3 of 3: Lessons from the Chair

### Introduction

This Operating Experience Summary (OES) is the third of a three-part series titled “*Managing an Accident Investigation Board*.” It provides information that supports field organizations in successfully managing Department of Energy (DOE) Accident Investigation Board (AIB) responsibilities. AIB guidance and training exists within the Department and is routinely provided to AIB candidates. However, due to the immediacy and high level of rigor that is required by the process, and the low frequency in which AIBs are convened, subject matter experts and managers called to support an investigation can benefit from continued awareness about potential process pitfalls and good practices in executing their responsibilities. This third part of the OES series considers AIB lessons learned from the Chairpersons’ perspective. The other two parts focus on the roles and perspectives of the AIB Board Members and federal Site Office.

### Background

From December of 2022 to August 2023, three serious accidents occurred which met the criteria of *DOE O 225.1B, Accident Investigations*. AIBs were chartered by the Office of Science (SC) for the SLAC National Accelerator Laboratory Electrical Shock Event (December 27, 2022), the Fermi National Accelerator Laboratory Construction Injury Event (May 25, 2023), and the Oak Ridge Reservation Management Tree Felling Fatality Event (August 11, 2023). The experience of chartering and executing these AIBs provides a rich collection of lessons that can benefit other organizations in performing this critical task and ensuring high quality investigation outcomes. In the spirit of being a learning organization, the SC Office of the Deputy Director for Operations and the Office of Environment, Health, Safety and Security (EHSS) Accident Prevention and Investigation Program (APiP) Manager collaborated to develop Lessons Learned from these three recent event investigations and share them with the DOE Complex.

#### ***AIB Chair Operating Experience***

#### ***Lessons Learned and/or Good Practices Identified***

1. AIB Members (Board) will be required and able to ***utilize the selected collaboration tools*** in which the Board operates (e.g., Teams, SharePoint, etc.)
  - a. Teams is currently the most common collaboration platform utilized by AIBs. However, some DOE sites limit access to certain platforms such as Teams for various reasons, including security restrictions. Access to the collaboration platform should be confirmed quickly and early into the process of identifying team members. It is critical to that all Board members are able to use the selected team collaboration tool. Workarounds are not a viable option and should not be permitted.

## AIB Chair Operating Experience

## Lessons Learned and/or Good Practices Identified

- b. All documents, notes, and pictures will need to be stored in electronic format on the Board's designated Website/SharePoint for easy team access. Access to this information without delays is crucial to moving the AIB forward. Consideration should be given to potential incompatibilities between government vs. non-government laptops, HSPD-12/PIV access, and email addresses.
  2. Provide a **summary** or **one-page "primer"** to Board members, Site Office, and Contractor (if necessary) describing the overall accident investigation process and associated roles and responsibilities.
    - a. Board members may not be familiar with *DOE-HDBK-1208-2012 Accident and Operational Safety Analysis Volume I* which provides vital framework for the investigation process. The Chair can ask EHSS to provide a brief summary or primer to help Board members understand the direction in which they'll move and where to go to get more information.
    - b. The Chair should explain the Board's goals are and what methods will be used to achieve them to the Site Office. The Chair should describe the overall process, including what the Board will expect from the Site Office prior to the Board's arrival, during the investigation, and to support the finalization of the report.
    - c. The EHSS-23 Accident Prevention and Investigation Program Manager is available to provide information on the AIB process and to assist in coordinating with the Site to ensure the Board is properly supported.
  3. Establish a **document storage area and e-file structure system** early so requested documents can be easily and quickly located.
    - a. Establishing a central, structured electronic document storage area and e-filing system *prior* to arriving on site is key to limiting the time loss and frustration associated with managing documents and allows the Board to work efficiently. THIS ACTION WILL SAVE THE BOARD TIME.
    - b. The Board can benefit from having an administrative assistant assigned to support effective board functioning, such as document storage, control, and coordination. In the absence of an administrative assistant, the Chair should consider selecting a Board member to be responsible for storing information and communicating where information is located. This is a critical lesson learned as the volume of information easily becomes overwhelming to manage.
    - c. Consider providing a Site Office staff member (or other) with limited access to the document storage area to enable uploading of requested documents for the Board.
    - d. Establish a system for keeping track of information requested and information received. This helps eliminate duplicate requests and keeps the Site Office and Board on the same page.

**AIB Chair Operating Experience**

**Lessons Learned and/or Good Practices Identified**

- e. Save documents with titles that are easily identifiable (e.g., save a document originally titled “PO-0000225269”, as “Purchase Order for Electrical Services”)
4. **Develop and Utilize Templates.**
- a. Develop, utilize, or customize previous templates early to develop AIB charge, lines of Inquiry, reports, and presentations. Templates can act as checklists, eliminate the need to “reinvent the wheel”, and ensure that all team members are aligned on expectations. Some helpful templates developed during previous Boards include:
    - 1) Board Team Meetings (prior to arriving on site).
    - 2) Initial meetings with Site Office.
    - 3) Presentations for other entities (i.e., Site Office, Appointing Official, other Laboratories/Organizations, Unions, contractors, misc. briefings, etc.)
5. Consider **Board composition.**
- a. Always consider having someone from the event site (not connected to the organization line management under which the event occurred) assigned as either a Board member or advisor. This is extremely beneficial as they better understand the organizational chain of command, prime and sub-prime contractor relationships, site infrastructure, can eliminate logistical issues (i.e., parking, accessing internal databases/systems, or event scene access) and are a “familiar” face that provides a level of comfort to those closely involved in the event.
  - b. It may be difficult getting Board members lined up in a relatively short period of time. EHSS staff can assist the Chair in identifying potential members.
  - c. *DOE Order 225.1B Accident Investigations* requires a trained Accident Investigator be assigned to the Board. However, given the requirement that they need to have attended training AND have previous experience on an AIB, this becomes one of the toughest challenges in assembling a Board. Chairs should consider consulting with EHSS-23 to identify suitable and qualified Accident Investigators.
  - d. Inclusion of non-conflicted contractors should always be considered as members or advisors to the AIB. Contractors are doing the work, not DOE. They are the Subject Matter Experts in the systems which are likely involved in the event.
6. **DOE Legal Counsel** is a great resource for the Chair.
- a. Legal counsel is invaluable to the Chair in helping navigate the investigation process for events in which serious injury or death has occurred. Chairs should engage DOE Legal Counsel shortly after appointment. Legal Counsel may provide valuable insight for the Chair,

**AIB Chair Operating Experience**

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- and aid in the development of responses required to address or communicate legal concerns that could arise.
  - b. DOE legal counsel can provide the Board with assistance in navigating the potential need to communicate with non-government private attorneys.
7. Understand **prime contractor and subcontractor relationships**.
- a. Understanding who is responsible for the work being performed and who is performing the work is crucial. There may be multiple subcontractors involved.
  - b. If the prime contractor (or sub) involved with the event is a small business, their support of the investigation may be a financial burden to them. Discussions with the Site Office, Contracting Officer, and Contracting Officer Representative may provide a better understanding of these financial strains and opportunities to maximize their participation.
  - c. Communicate to the prime contractor, through the Site Office, what the Board expectations are.
8. **Initial/Parallel investigations** can be expected and challenging.
- a. Initial and parallel investigations outside of the AIB present challenges and take an extraordinary amount of time away from the Site Office and others involved with the accident:

    - 1) Immediately after the accident, the Site Office will be working with the contractor (if applicable) to try and understand the basics of the event while concurrently securing the scene and placing it in a safe configuration.
    - 2) Based on the event, it may be likely that other federal and state entities such as Occupational Safety and Health Administration (OSHA), Labor & Industries or local law enforcement may want and/or be required to investigate.
    - 3) The Site Response Team, Performance Assurance Group (or equivalent) will need to interview those directly involved in the event to gain key pieces of information to quickly understand what happened as well as meet any required ORPS and/or CAIRS reporting criteria. Interviewees should be informed that multiple interviews should be expected.
    - 4) Based on the event, DOE Enterprise Assessment (EA) may be required to investigate as well. Opening the lines of communication and understanding concurrent roles and responsibilities for both the AIB Chair and Lead EA investigator may limit frustrations between the Site Office, the AIB, and the EA Team.
  - b. The event may have the potential to impose post traumatic effects to witnesses, close contacts of the injured worker, Site Office personnel, and AIB team

**AIB Chair Operating Experience**

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members. Consider soliciting help from the Employee Assistance Program or other programs to help those who may need these services. Ensure everyone is aware of these resources.

**9. Factual Accuracy/Quality Review Process.**

- a. Employ the services of a Technical Editor in compiling the report. This eliminates a huge burden from the Chair, allows for report flow, and relieves the Board from resolving inherent grammar/syntax errors.
- b. Factual accuracy reviews require a significant amount of time to conduct. Consideration should be given to those assigned to proctor the factual accuracy as it can be an excessive burden to the Site Office given the event. This position may better suit a member of the Board (especially if the Board member is local).
- c. Roles, Responsibilities and Objectives need to be clearly defined for both the Board and Quality Review Team (QRT). The QRT Lead and all QRT members can support empowering the Board by seeking to frame all feedback and suggestions in a way which recognizes the Board's efforts and understanding of the event.
- d. Consider assigning a Board member as liaison to the QRT to provide context and applicable insight.

**10. Close Out of Board.**

- a. Consider (if possible) the value of having the Board meet one last time in person to wrap up the report and formally be "released" of their duties.
- b. Custody of physical evidence obtained by the Board needs to be formally transferred back to the Site Office.
- c. All files developed by the Board need to be captured electronically and transferred to EHSS for archiving. A memo from the Appointing Official to EHSS ensures integrity of the chain of custody.

The Office of Environment, Health, Safety and Security (EHSS), Office of ES&H Reporting and Analysis publishes OES articles to promote safety throughout the DOE Complex through the exchange of lessons-learned information among DOE facilities and program offices.

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**OES Series: Managing an Accident Investigation Board (AIB)**

This OES is part of a series of articles focused on recent operating experience and recommended practices in the managing an AIB under DOE O 225.1A. The series includes the following three parts:

- Part 1: *Lessons for Board Members*
- Part 2: *Lessons from the Site Office*
- Part 3: *Lessons for the Chair (this OES document)*