



DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Update on the Board's Oversight Activities at Los Alamos National Laboratory

Presented to

New Mexico State Legislature's
Radioactive and Hazardous Materials Committee

August 23, 2019



Agenda

- Overview of the Board
- Board Safety Oversight Activities at Los Alamos
- Impacts of DOE Order 140.1



Board Overview

- Established by Congress in 1988
- Five Presidentially-appointed, Senate-confirmed members
- Statutory mission:
 - Provide independent analysis, advice, and recommendations to the Secretary of Energy to inform the Secretary, in the role of the Secretary as operator and regulator of the defense nuclear facilities of the Department of Energy, in providing adequate protection of public health and safety at defense nuclear facilities
- The Secretary of Energy determines how best to apply the information provided by the Board

Current Board Members



Chairman
Bruce Hamilton



Board Member
Jessie Hill Roberson



Board Member
Joyce Connery



Vacant



Vacant



Board Overview—Scope of Oversight

Nuclear safety oversight of:

- Complex, high-hazard operations involving nuclear weapons
- Remediation of nuclear wastes and legacy facilities from more than 70 years of DOE defense nuclear operations
- Design and construction of new DOE defense nuclear facilities
- Aging and deteriorating mission critical infrastructure at DOE defense nuclear facilities/sites
- Adequacy of DOE safety standards related to design, construction, operations and decommissioning of defense nuclear facilities

Resident Inspectors perform near-continuous oversight at Hanford, Los Alamos, Pantex, Savannah River Site, and Y-12



Y-12 National Security Complex



Board Overview—Scope of Jurisdiction

The Board is concerned only with facilities operated by DOE that are:

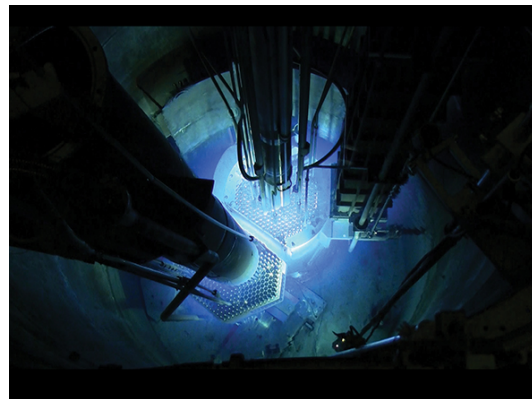
- (1) covered by the Atomic Energy Act;
- (2) have a function related to national defense.

The phrase “defense nuclear facilities” excludes:

- DOE’s nuclear projects that are civilian in purpose
- Commercial nuclear facilities regulated by the Nuclear Regulatory Commission



Los Alamos National Laboratory



Sandia National Laboratories



Waste Isolation Pilot Plant

DOE’s Defense Nuclear Facilities in New Mexico



Board Overview—Major Statutory Powers

With regard to the design, construction, operation, and decommissioning of defense nuclear facilities, the Board:

- Reviews and evaluates the content and implementation of standards
- Analyzes design and construction data
- Reviews facility design and construction

The Board is authorized to:

- Issue formal Recommendations to the Secretary of Energy
- Request information from DOE
- Conduct public or closed hearings and meetings, and subpoena witnesses
- Conduct investigations and special studies

DOE is required by law to grant the Board “ready access to such facilities, personnel, and information as the Board considers necessary to carry out its responsibilities.”



Glovebox Operations at Savannah River Site



Recent Board Activity at Los Alamos

Board Member Visits

- July 2018: Board Member Connery
- February 2019: Board Member Santos
- August 2019: Chairman Hamilton

Board letters to DOE

- May 22, 2019: Safety basis for the RANT Shipping Facility
- November 28, 2018: Nuclear criticality safety program
- May 24, 2018: Fire protection control strategy at Area G



Tritium Storage Shed at Area G



RANT Shipping Facility



Current Board Focus Areas at Los Alamos

Oversight areas for Los Alamos highlighted in July 23, 2018, letter to the NNSA Administrator:

- Seismic performance of the Plutonium Facility's building structure, ventilation system, and fire suppression systems
- Nuclear criticality safety program deficiencies with DOE and industry standards
- Conduct of operations in the Plutonium Facility
- Transuranic waste disposition



Transuranic Waste Operations at Area G



Board Actions Related to DOE Order 140.1

Public Hearings on the Order

- August 28, 2018 (Washington DC)
- November 28, 2018 (Washington DC)
- February 21, 2019 (Albuquerque)

Board letters to the Secretary of Energy

- September 17, 2018
- December 21, 2018
- June 12, 2019



Public Hearing in Albuquerque, NM



Board Concerns with DOE Order 140.1

1. The Order provides a new definition of “public health and safety” that only includes individuals located beyond site boundaries, thereby excluding onsite individuals and workers from the Board’s oversight;
2. The Order provides exemptions allowing DOE to deny access to Hazard Category 3 nuclear facilities or other facilities that DOE determines do not have the potential to adversely affect offsite public health and safety;
3. The Order lacks a clear provision to provide the Board with ready access to such information, facilities, and personnel as the Board considers necessary to carry out its responsibilities; and
4. The Order contains an allowance for DOE to deny Board requests related to deliberative documents, pre-decisional documents, or deliberative meetings.



DOE Order 140.1 Implementation: NNSA & Triad

NNSA modified Triad's contract to include the order on March 8, 2019. Triad subsequently updated their internal procedure for interface with the DNFSB on June 21, 2019.

- Requires NNSA approval for pre-decisional or draft documents
- Strengthens default flow of information for approved documents
- Maintains provision for Triad personnel to fully cooperate with Resident Inspectors

Relevant staff experiences

- Triad satisfactorily resolved database access concerns created by the predecessor contractor
- NNSA Headquarters personnel denied the Resident Inspectors access to observe a meeting on nuclear material supply on the grounds of pre-decisional



DOE Order 140.1 Implementation: EM & N3B

DOE-EM has not yet updated N3B's contract to include the new order.

Relevant staff experiences

- Resident Inspectors are not afforded the same level of default information flow from N3B as Triad provides
- The lack of a documented interface procedure has resulted in confusion on expectations for full cooperation with the Resident Inspectors



Questions?

Board communications, Resident Inspector weekly reports, Public Hearing information and other agency information available at

www.DNFSB.gov

Defense Nuclear Facilities Safety Board

ABOUT US | DOCUMENTS | BOARD ACTIVITIES & RECOMMENDATIONS | PUBLIC HEARINGS & MEETINGS | DOE SITES | CAREERS | TOPICS

The Defense Nuclear Facilities Safety Board is an independent organization within the executive branch of the United States Government, chartered with the responsibility of providing recommendations and advice to the President and the Secretary of Energy regarding public health and safety issues at Department of Energy defense nuclear facilities.