



DEFENSE NUCLEAR FACILITIES SAFETY BOARD INTERFACE WITH DEPARTMENT OF ENERGY

Impacts of Department of Energy
Order 140.1, *Interface with the Defense Nuclear
Facilities Safety Board*



DOE Order 140.1 – Summary

- DOE Order 140.1 improperly attempts to diminish the Board’s statutory mandate in four primary ways:
 1. Exemptions where federal and contract employees are not required to cooperate with the Board.
 2. Defining “Public Health and Safety” narrowly.
 3. Limiting the Board’s access to defense nuclear facilities.
 4. Limiting the Board’s access to deliberative or pre-decisional information.
- The Atomic Energy Act gives the Board the authority to determine the information needed for the Board to perform its mission.



DOE Order 140.1 Impacts – Exemptions

- DOE Order 140.1 states:
 - “This Order does not apply to DOE Nuclear Hazard Category 3 or Below Hazard Category 3 facilities, as defined in DOE-STD-1027. (If requested, the DNFSB shall be provided access to the information that led to the DOE determination that a facility is less than Hazard Category 2 to allow the DNFSB oversight into that determination.)”
 - “This Order does not apply to nuclear facilities or activities at DOE defense nuclear facilities, as defined in this Order, that do not adversely affect or have the potential to adversely affect public health and safety.”
- However, Hazard Categories are a DOE construct, nowhere mentioned in the Atomic Energy Act.
- The Atomic Energy Act gives the Board the authority to determine if public health and safety are affected.



DOE Order 140.1 Impacts – Public Health and Safety

- DOE Order 140.1 defines *Public Health and Safety* as the “health and safety of individuals located beyond the site boundaries of DOE sites with DOE Defense Nuclear Facilities.”
- However, the Atomic Energy Act does not refer to the site boundary as the demarcation for defining public health and safety.
- Additionally, there is longstanding precedent by the Board, the NRC, the AEC, and the DOE to the contrary.



DOE Order 140.1 Impacts – Determination of Access

- DOE Order 140.1 states:
 - “Cooperate with the DNFSB and provide the DNFSB with ready access to such facilities, personnel, and information as necessary to carry out its statutory responsibilities...”
- However, the Atomic Energy Act states:
 - “The Secretary of Energy shall fully cooperate with the Board and provide the Board with ready access to such facilities, personnel, and information as *the Board considers* necessary to carry out its responsibilities...” (emphasis added)



DOE Order 140.1 Impacts – Deliberative Information

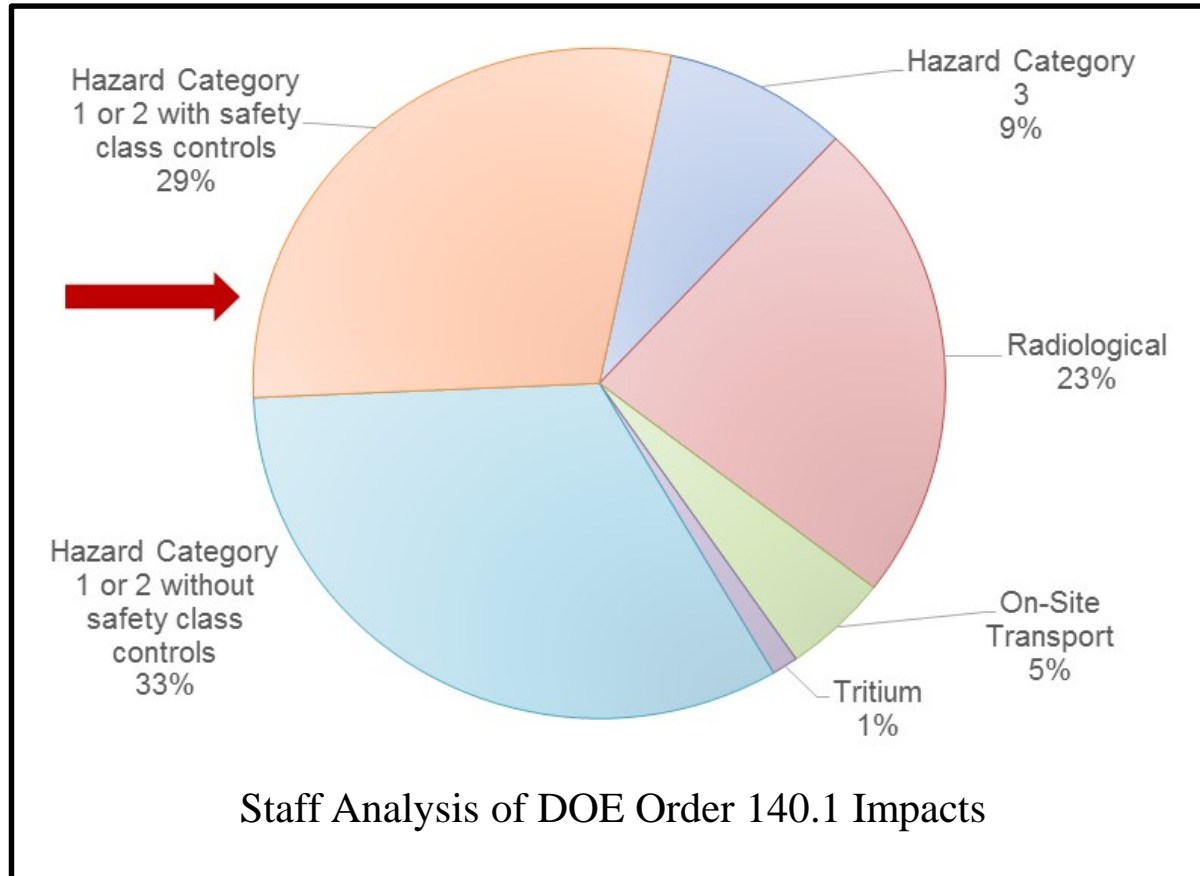
- DOE Order 140.1 allows DOE to deny requests related to deliberative/pre-decisional documents and meetings.
- However, the Atomic Energy Act contains no limitation on the Secretary's obligation to provide any information the Board considers necessary and only provides the following provisions to deny *individual* access:

“The Secretary of Energy may deny access to information provided to the Board to any person who—

 - (1) has not been granted an appropriate security clearance or access authorization by the Secretary of Energy; or
 - (2) does not need such access in connection with the duties of such person.”



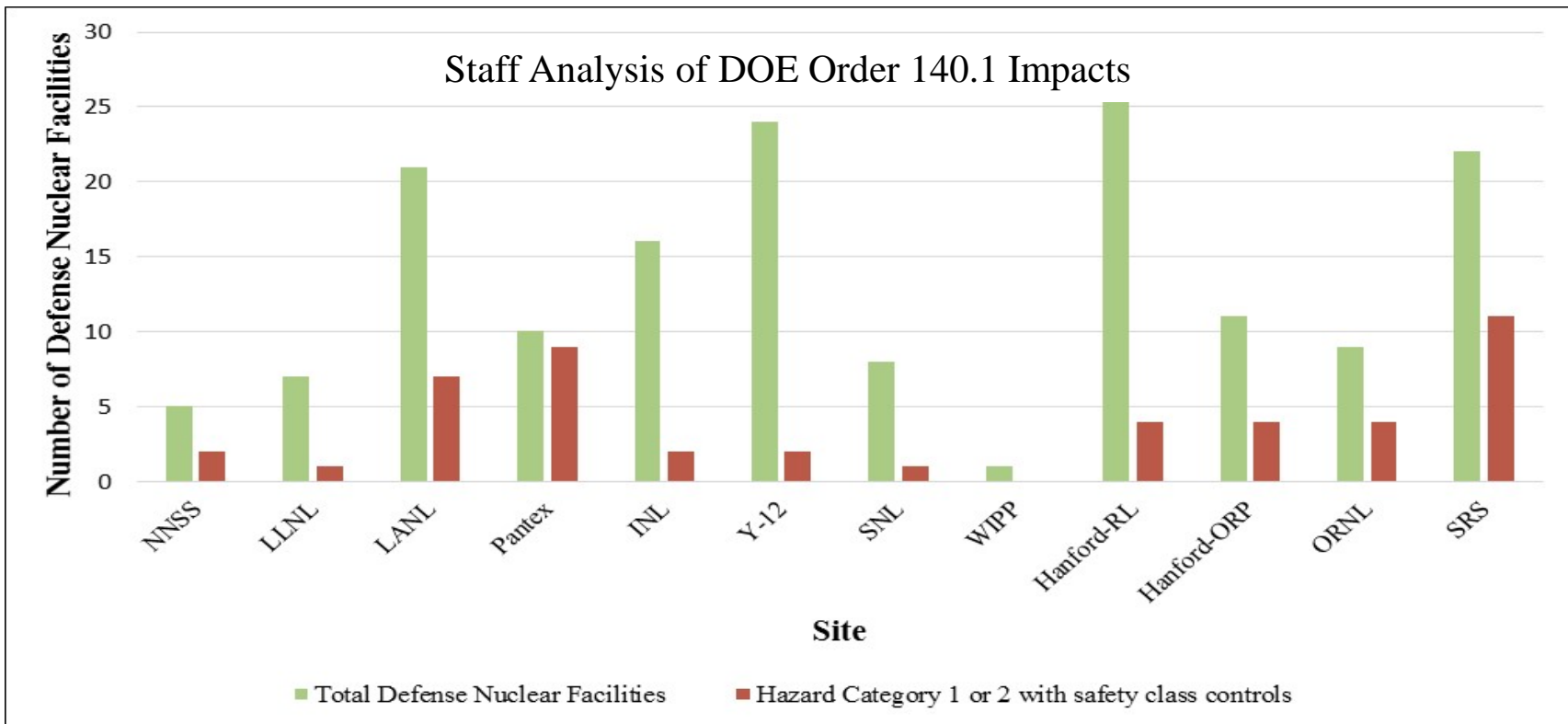
DNFSB – DOE Interface Impacts



- Order could limit Board oversight to 29% of DOE defense nuclear facilities (red arrow).



DNFSB – DOE Interface Impacts



- Significant reduction in nuclear safety oversight at most sites.
- No Board oversight role at WIPP.



Backup Slides



DNFSB – DOE Interface Background

- DOE Interface Manual 140.1-1B published March 2001
 - Includes safety of onsite workers
 - Includes all defense nuclear facilities
 - Includes access to facilities, personnel and information that the Board considers necessary to carry out its responsibilities
 - Consistent with the Board's enabling legislation under the Atomic Energy Act
 - Developed with Board input.
- DOE Interface Order 140.1 published May 2018
 - Limitations asserted through exemptions and other requirements
 - No formal request for input from Board or other stakeholders prior to May 2018



DNFSB – DOE Interface Recommendation Examples

At least 13 Recommendations explicitly involve worker safety, including:

- **Recommendation 2012-2, Hanford Tank Farms Flammable Gas Safety Strategy**
 - **Safety Item** – High dose consequences to workers from flammable gas events
 - **DOE Action** – 2018 – Completed installation of safety-significant flow monitors in place of an administrative control
- **Recommendation 2012-1, Savannah River Site Building 235-F**
 - **Safety Item** – A fire scenario with inadequate controls for a 27,000 rem unmitigated dose consequence to routinely more than 1,000 nearby workers
 - **DOE Actions** – 2013 to 2015 – Removed combustibles; de-energized and removed electrical equipment; installed a fire alarm and detection system
- **Recommendation 2010-1, Safety Analysis Requirements for Defining Adequate Protection for the Public and the Workers**
 - **Safety Item** – DOE needs a clear and unambiguous set of nuclear safety requirements for safety analyses for the adequate protection of the public and workers
 - **DOE Action** – 2014 – Developed DOE Standard 3009-2014 including major changes related to worker safety



DNFSB – DOE Interface Correspondence Examples

Examples of recent correspondence on DOE restricted topics include:

- **6/4/18 Board Letter** – *Tritium Facilities Safety Basis at the Savannah River Site*
 - **Safety Item** – Identified accidents with high calculated dose consequences to workers that lacked safety controls.
 - **DOE Action** – To be determined
- **6/26/17 Board Letter** – *Fire Protection Safety Strategy for the Uranium Processing Facility*
 - **Safety Item** – Identified controls which should be safety-significant for the protection of workers.
 - **DOE Action** – 2017 – Upgraded fire pumps and gloveboxes to safety-significant.
- **6/18/14 Board Letter** – *Safety Basis Review of 242-A Evaporator at Hanford*
 - **Safety Item** – Identified deficiencies in safety-significant controls for the protection of workers.
 - **DOE Action** – 2014 – Implemented compensatory actions until installation of a safety-significant engineered control.
- **7/15/13 Board Letter** – *Criticality Safety Program at Los Alamos National Laboratory*
 - **Safety Item** – Identified significant non-compliances with DOE and industry standards for criticality safety, as well deficiencies in the conduct of operations in the Plutonium Facility .
 - **DOE Action** – 2013 – Developed detailed corrective action plan to resume paused operations.



DNFSB – DOE Interface Technical Report Examples

21 of 41 Technical Reports involve worker safety, including:

- **Technical Report 20**, *Protection of Collocated Workers at the Department of Energy's Defense Nuclear Facilities and Sites*
 - “The steps necessary to protect the public generally, and all workers as well, begin with actions to protect workers most at risk.”
- **Technical Report 29**, *Criticality Safety at Department of Energy Defense Nuclear Facilities*
 - “The Board believes both sustaining the recent initiatives for improving criticality safety, and addressing the areas for improvement identified in the enclosed technical report are of primary importance to ensuring adequate protection from inadvertent nuclear criticality in the defense nuclear complex.”

AFFIRMATION OF BOARD VOTING RECORD

SUBJECT: DOE Order 140.1 Slide Deck

Doc Control#2018-100-074


The Board, with Board Member(s) Bruce Hamilton, Jessie H. Roberson, Daniel J. Santos, Joyce L. Connery *approving*, Board Member(s) none *disapproving*, Board Member(s) none *abstaining*, and Board Member(s) none *not participating*, has voted to approve the above document on October 24, 2018.

The votes were recorded as:

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIPATING*	COMMENT	DATE
Bruce Hamilton	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10/23/18
Jessie H. Roberson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10/24/18
Daniel J. Santos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10/23/18
Joyce L. Connery	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10/22/18

*Reason for Not Participating:

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Board Members.



Executive Secretary to the Board

Attachments:

1. Voting Summary
2. Board Member Vote Sheets

cc: Board Members
OGC
OGM Records Officer
OTD

DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET

FROM: Bruce Hamilton

SUBJECT: DOE Order 140.1 Slide Deck

Doc Control#2018-100-074

Approved X **Disapproved** **Abstain**

Recusal – Not Participating

COMMENTS: **Below** **Attached** **None** X


Bruce Hamilton

23 OCT 2018
Date

DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET

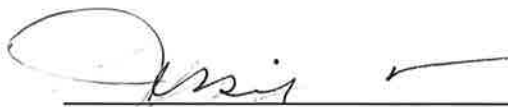
FROM: **Jessie Roberson**

SUBJECT: **DOE Order 140.1 Slide Deck**

Doc Control#2018-100-074

Approved X **Disapproved** **Abstain**
Recusal – Not Participating

COMMENTS: **Below** **Attached** **None** X



Jessie Roberson
10/24/2018

Date

DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET


FROM: Daniel J. Santos

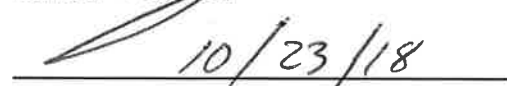
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Doc Control#2018-100-074

Approved **Disapproved** _____ **Abstain** _____
Recusal – Not Participating _____

COMMENTS: **Below** _____ **Attached** _____ **None**



Daniel J. Santos


Date

DEFENSE NUCLEAR FACILITIES SAFETY BOARD
NOTATIONAL VOTE RESPONSE SHEET

FROM: Joyce Connery

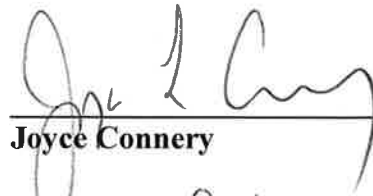
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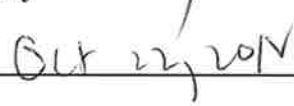
Doc Control#2018-100-074

Approved **Disapproved** **Abstain**

Recusal – Not Participating

COMMENTS: **Below** **Attached** **None**



Joyce Connery


Date