

Bruce Hamilton, Acting Chairman
Jessie H. Roberson
Daniel J. Santos
Joyce L. Connery

**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**

Washington, DC 20004-2901



March 27, 2018

The Honorable James Richard Perry
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Perry:

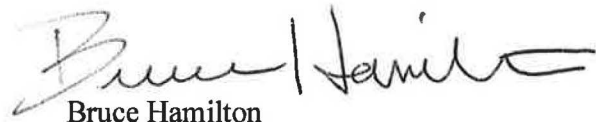
The Defense Nuclear Facilities Safety Board completed a review of the safety basis for Idaho National Laboratory's Integrated Waste Treatment Unit (IWTU) in October 2017. The Board's review team identified the following weaknesses in IWTU's safety basis:

- Several hazards are designated as standard industrial hazards and are screened from further analysis in IWTU's safety basis. As a result, IWTU's safety basis does not adequately analyze some events, such as a carbon dust explosion in the fuel storage silos, and oxygen displacement in the process areas. These types of events may require identification of safety-significant controls for protection of workers.
- IWTU's fire hazard analysis relies on the implementation of site-wide safety management programs to screen out hazards during the unmitigated analysis. This is inconsistent with the Department of Energy's documented requirements. Consequently, IWTU's safety basis does not analyze several possible accident events, such as a carbon dust fire in the additive storage room. A carbon dust fire could spread to the adjacent mechanical equipment area, potentially damaging the safety-significant components in that space.

IWTU has implemented safety management programs and non-credited safety controls that are intended to address these potential hazards within the short expected operational life of the facility but has not sufficiently documented the hazards and the controls in the safety basis. Such documentation should be completed regardless of the expected operational life of a facility.

Per 42 U.S.C. 2286a(a), the Board also advises DOE that it might be useful to incorporate this information into DOE's formal lessons learned program such that personnel at sites across the complex are mindful of the need for proper documentation of screened items and reliance on site-wide safety management programs within a safety basis.

Yours truly,

A handwritten signature in black ink, appearing to read "Bruce Hamilton". The signature is fluid and cursive, with a long horizontal stroke at the end.

Bruce Hamilton
Acting Chairman

c: Mr. Matthew B. Moury
Mr. Joe Olencz