

Joyce L. Connery, Chair
Thomas A. Summers, Vice Chair

**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**

Washington, DC 20004-2901



November 28, 2023

The Honorable Jennifer M. Granholm
Secretary of Energy
US Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Granholm:

In its letter dated August 3, 2023, the Defense Nuclear Facilities Safety Board (Board) identified concerns with facility worker safety at the Savannah River Plutonium Processing Facility project. Specifically, the Board is concerned that project personnel assert facility workers can use their senses to detect accidents such as a glovebox spill or fire and exit the area before receiving significant radiological exposure. Using this assumption of worker self-protection, project personnel avoided designating safety significant controls, such as gloveboxes, glovebox ventilation, continuous air monitors, and glovebox fire controls, that other DOE plutonium processing facilities have traditionally designated. As a result, the Board requested “a written report and briefing in 45 days providing DOE’s [Department of Energy] position on the adequacy of the safety strategy for facility worker protection, focusing on impacts to long-lead procurements, such as glovebox systems.” The Board received an interim response from DOE on September 25, 2023. In that letter, DOE stated it would “further respond” to the Board’s request “when a path forward has been determined,” but did not specify a timeframe for its completed response.

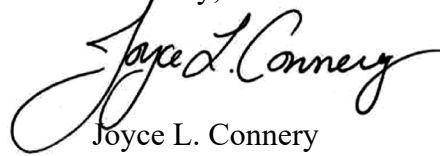
DOE’s interim response highlights the completion of a project review by the National Nuclear Security Administration’s Associate Administrator for Environment, Safety, and Health (NA-ESH). NA-ESH’s conclusions are largely consistent with the Board’s safety concerns. For example, the NA-ESH report (dated September 7, 2023) found that project personnel over-relied on the expectation that facility workers would take self-protective actions to avoid significant radiological exposures from postulated hazards. The report also found that project personnel too often selected mitigative controls over available preventive controls for hazard scenarios, which is not consistent with the hierarchy of controls in DOE Standard 1189-2016, *Integration of Safety into the Design Process*.

On October 25, 2023, the DOE Office of Environment, Health, Safety, and Security issued a memorandum with interpretations of DOE requirements for developing the project’s safety basis. The memorandum indicates concerns with the selection of controls for worker safety. It states that “it is especially concerning that this type of protection strategy [facility worker self-protection] is being discussed during the design phase of a new DOE nuclear facility

when the development and crediting of controls are attainable and will be integral to the long-term safe operations of the facility.”

As discussed in the Board’s August 3, 2023, letter, the DOE Office of Enterprise Assessments also documented concerns with facility worker protection at the Savannah River Plutonium Processing Facility (report issued in December 2021). Now that three of DOE’s applicable nuclear safety organizations have documented safety concerns with the project’s safety approach, the Board is renewing its request for a final response. Therefore, pursuant to 42 United States Code §2286b(d), the Board requests a written response and briefing to its letter dated August 3, 2023, by January 19, 2024.

Sincerely,

A handwritten signature in black ink, reading "Joyce L. Connery". The signature is written in a cursive style with a large, looping initial "J".

Joyce L. Connery
Chair

c: Mr. Joe Olencz