



**Department of Energy**  
**Under Secretary for Nuclear Security**  
**Administrator, National Nuclear Security Administration**  
**Washington, DC 20585**



January 17, 2024

The Honorable Joyce L. Connery  
Chair, Defense Nuclear Facilities Safety Board  
625 Indiana Avenue NW, Suite 700  
Washington, DC 20004

Dear Chair Connery:

In response to your August 3, 2023, and November 28, 2023, letters to the Secretary expressing concerns about the design of the Savannah River Plutonium Processing Facility (SRPPF), this letter provides our position on the adequacy of the safety strategy for facility worker protection with a focus on impacts to long-lead procurements, such as glovebox systems, as requested in your letters. I appreciate the Defense Nuclear Facilities Safety Board (DNFSB/Board) bringing its concerns associated with SRPPF to my attention. The Department of Energy (DOE), including National Nuclear Security Administration (NNSA), is committed to assuring adequate protection of the workers, the public, and the environment. I believe that the actions identified below address the Board's concerns.

In your correspondence, the Board identified safety concerns related to protecting facility workers and the glovebox control designations proposed by the project. On September 14, 2023, NNSA directed the SRPPF Project to re-evaluate the consolidated hazard analysis and revise the safety design strategy based on the NNSA Office of Environment, Safety, and Health (NA-ESH) reviews, with expected key decisions to be determined by the end of January 2024. During your October 2023 visit to the Savannah River Site, NNSA briefed you on the status and updates to the SRPPF hazard analysis and the glovebox procurement strategy.

NNSA Headquarters, the Savannah River Field Office, the SRPPF Project Office, and the design contractor collaborated on the approach for the facility worker safety control strategy, with emphasis on the safety classification for the gloveboxes. Of the gloveboxes in the design with material at risk (i.e., radioactive material), 18 gloveboxes are already credited as Safety Class. Hazard scenarios where FWSP is assumed were re-evaluated to ensure the correct facility worker unmitigated consequences were assigned. As a result, the remaining gloveboxes originally designated as general service were elevated to a Safety Significant designation. Specifically, the glovebox assembly will be designed and credited as a passive design feature to prevent the free fall spill of radioactive material (i.e., tip over or topple) to mitigate exposure to the facility worker during and after a seismic event. NNSA will incorporate these changes as the glovebox procurement progresses and prior to glovebox fabrication. In addition to elevating the safety designation of the gloveboxes, NNSA has elevated other structures, systems, and components (SSCs) to Safety Significant; such as glovebox oxygen monitors and differential pressure alarms. NNSA is considering other SSCs that may be elevated to the Safety Significant designation.


Final selection for the designation of these controls will be determined as the project design progresses.

In summary, DOE/NNSA is employing multiple interfacing systems and mechanisms as safety controls for protecting facility workers at SRPPF. NNSA concurs with the Board's concerns regarding the previous facility worker control strategy at SRPPF and will ensure that all gloveboxes with plutonium material at risk are credited as Safety Class or Safety Significant. In addition, consistent with the September 14, 2023, SRPPF project letter referenced above, NNSA expects the consolidated hazard analysis and safety design strategy will be revised to incorporate this control strategy and will be approved by the Safety Basis Approval Authority in the coming months.

To ensure that ongoing and future nuclear construction projects continue to meet safety requirements and properly and judiciously integrate safety into design, I directed my Cognizant Secretarial Officer (CSO) for Safety to formally transmit guidance on the use and application of the October 25, 2023, DOE Office of Environment, Health, Safety, and Security policy interpretation regarding facility worker self-protect (FWSP) to all NNSA program and field office management. Over the next year, NNSA field offices will be asked to verify that the concept of integrating safety into design has been appropriately applied to safety design basis documentation. NNSA takes the safety and protection of workers very seriously and recognizes the need to develop lessons learned and apply them to support continuous improvement. Once developed, the lessons learned will be published for consideration across the DOE nuclear complex.

Pursuant to your August 3, 2023, and November 28, 2023, letter's request, NNSA will schedule a briefing with the Board in the near future. We appreciate the Board's input and observations and will continue to keep the DNFSB informed as the project design progresses. If you have any questions, please contact Mr. Ahmad Al-Daouk, NNSA CSO for Safety and Associate Administrator for Environment, Safety, and Health, at (505) 845-4607.

Sincerely,

A handwritten signature in black ink, appearing to read "Jill H", with a stylized flourish extending to the right.

Jill Hruby