



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



November 8, 2022

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

Dear Chair Connery:

This letter responds on behalf of the Secretary to your August 11, 2022, communication regarding the Los Alamos National Laboratory (LANL) Leak Path Factor (LPF) analysis for the Plutonium Facility (PF-4). You referenced a letter from Los Alamos Field Office (NA-LA) to LANL that provided direction to consider the DNFSB's concerns¹ with the LPF analysis. You requested DOE's National Nuclear Security Administration (NNSA) provide any analysis of how LANL implemented the direction in that February 2020 letter.

The LPF analysis is a key input as LANL updates the PF-4 Documented Safety Analysis (DSA) per Department of Energy (DOE) STD 3009-2014. The reasonably conservative and realistic LPF analysis that LANL is preparing will also result in an appropriate level of conservatism for the update of the PF-4 DSA. Until recently, limited progress had been made on the LPF analysis work and it was not sufficiently developed to provide to your staff for proper evaluation, expert advice, or to identify actionable commitments to DOE/NNSA for improving the analysis. The LPF analysis was affected by several challenges that led to the delay, which NNSA staff previously discussed with your Resident Inspectors.

In May 2022, LANL provided NA-LA with a crosswalk evaluation of TECH-44 that addressed the Board's inputs and indicated which are being used, will be used or not used, and explained the rationale for the actions. LANL is currently re-examining the accident analysis for several items and will propose updates to the methodology, as appropriate. LANL's crosswalk states that it will document all assumptions, supporting calculations, and other documentation associated with the LPF that will be discussed in the updated TA-55 DSA, including how it meets the LANL internal quality assurance requirements, and justifications for source term parameters used. The analysis will be reviewed by a LPF subject matter expert on behalf of NA-LA under an approved safety basis review plan. DOE/NNSA intends to provide updates to the DNFSB as the analysis progresses and matures through DOE/NNSA's ongoing interactions with the Resident Inspectors at LANL. LANL's crosswalk was provided to the DNFSB Resident Inspectors at LANL, and DOE/NNSA can provide a briefing to your staff on this evaluation and strategy.

¹ Letter to Secretary Perry from Joyce Connery, November 15, 2019, letter and Technical Report 44 (TECH-44), *LANL Plutonium Facility Leak Path Factor Methodology*.

DOE/NNSA values the Board's expertise and advice. DOE/NNSA and LANL will continue to engage with Board staff during the development of the LPF analysis and revision of the PF-4 DSA per STD-3009-2014.

If you have any questions, please contact Mr. Theodore Wyka, Manager of the Los Alamos Field Office, at (202) 586-2371.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jill H", with a long, sweeping underline.

Jill Hruby