

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 3, 2026

### **Nevada National Security Site (NNSS) Cognizant Engineer Activity Report for Period Ending March 31, 2026**

**DNFSB Staff Activity:** During the week of March 30, the DNFSB staff observed high-hazard nuclear operations at the Device Assembly Facility (DAF) and Principal Underground Laboratory for Subcritical Experimentation (PULSE).

**6-Foot Vessel Confinement System (VCS) Qualification:** On February 3, 2026, Los Alamos National Laboratory issued a qualification letter for a 6-foot VCS that will be used for a subcritical experiment (SCE). The letter documents that the safety-significant VCS meets the functional and performance requirements for use at PULSE. The qualification is based on an established nuclear weapon laboratory technical baseline information document, which states that the VCS is fabricated, certified, and tested for the design-basis impulse using a subset of the requirements specified in the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section VIII, Division 3: *Alternative Rules for Construction of High Pressure Vessels*. Notably, in its July 25, 2024, letter, the Board expressed concern about whether VCSs can adequately perform their safety function in a worst-case failure scenario when only a subset of the code requirements (rather than all code requirements) is met (see NNSS Monthly Reports for November 2022 and August 2023). DOE's December 11, 2024, response letter acknowledged that, based on the current design of the SCE VCS, certain attributes of the code requirements were not met, but stated a tailored approach to code compliance ensures the unique physical aspects of the VCS and its operating environment are accounted for when deviating from specific code requirements.

**Federal Readiness Assessment (FRA) Report for Enhanced Staging Program (ESP) at DAF:** On February 24, 2026, the Nevada Field Office (NFO) approved the FRA report for the ESP at DAF (see NNSS monthly reports for September and October 2025). The FRA team identified nine pre-start findings, one post-start finding, and nine opportunities for improvement. Most of the findings relate to the safety basis functional area, which could affect the hazard analysis and the selection of controls for ESP operations. The findings include inconsistencies in the functional classification of the container skid/pallet as part of the credited multi-tiered staging rack system; missing hazard evaluations for the wire guide system; and the design of the wire tiedowns used to secure the container to the skid/pallet that could disengage during a seismic event and cause the container to fall off the pallet. The FRA team concluded that NFO can proceed with start-up authorization of ESP operations following resolution of the identified findings. The FRA team also identified an opportunity for improvement to re-evaluate readiness processes and practices. The DNFSB staff is currently evaluating the report to determine if requirements from DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*, are adequately implemented.