

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 12, 2016

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending February 12, 2016

**DNFSB Staff Activity:** On Tuesday, a staff team conducted a teleconference with personnel from the NNSA Field Office and LANL to discuss the safety basis supporting the receipt and storage of americium-241 materials into the Chemistry and Metallurgy Research building.

**Plutonium Facility–Safety Basis:** On Wednesday, Plutonium Facility management declared a Potential Inadequacy of the Safety Analysis associated with the use of cast iron and malleable iron fittings in the fire suppression system. The issue is that the seismic modeling used to qualify the system assumes pipe connections use ductile steel materials rather than cast iron, which may be installed in the facility. As a result, the basis for the system’s seismic qualification is in question. The Board’s staff identified this issue during a review in December 2015 after first raising questions about this assumption in 2012.

**Waste Characterization, Reduction, and Repackaging Facility (WCRRF)–Facility Upgrades:** On Wednesday, LANL submitted to the NNSA Field Office for review and approval a revision to the WCRRF Technical Safety Requirements. The LANL submittal identified select design features that will need to be placed out of service in order to accommodate facility repairs and modifications necessary to resume waste processing activities. These repairs and upgrades include:

- Maintaining the vehicle barrier cabling system and resetting the barriers where gravel has been pushed under the barriers
- Repairing damage to the ceiling and roof structure caused by rainwater damage (see 7/17/15 weekly)
- Replacing roll-up access doors that provide a containment function and have become difficult to operate
- Making multiple repairs and upgrades to the Waste Characterization Glovebox used for waste remediation and repackaging activities

LANL’s request for revision notes that the vehicle access system gates need to be temporarily removed to allow access for trucked-in equipment and other materials necessary for the upgrades and repairs. LANL’s submittal also indicates that the facility is currently in COLD STANDBY mode and will remain so for the duration of these activities.

**Weapons Engineering Tritium Facility (WETF)–Safety Basis:** Last Wednesday, LANL submitted to the NNSA Field Office for review and approval a request to remove safety basis classification of the WETF Halon fire suppression system as safety significant. The currently implemented safety basis credits the Halon system with preventing an operations center fire from propagating to adjacent facility process areas. LANL’s request notes that the existing wet pipe sprinkler system in the operations center is adequate to perform this function alone. Last Friday, LANL submitted to the NNSA Field Office for review and approval an extension to the Evaluation of the Safety of the Situation (ESS) for the potential for increased probability of Oxygen Monitoring System failure (see 8/28/15 weekly). LANL’s request notes that the extension to the ESS will need to be in effect until the 2015 annual update to the safety basis has been approved and implemented.