

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 25, 2019

**MEMORANDUM FOR:** Christopher J. Roscetti, Technical Director  
**FROM:** J.W. Plaue and D. Gutowski, Resident Inspectors  
**SUBJECT:** Los Alamos Activity Report for Week Ending January 25, 2019

**DNFSB Staff Activity:** D. Andersen, R. Jackson, Y. Li, and P. Migliorini met with Triad engineering personnel to review plans for upcoming column capital testing and advanced seismic modeling of the Plutonium Facility. They also walked down the Plutonium Facility.

**Safety Basis:** On Tuesday, the NNSA Field Office approved Triad's schedule to update safety bases for the defense nuclear facilities to comply with DOE-STD-3009-2014. The schedule shows Triad submittals compliant with this standard are expected for the Radiological Laboratory Utility Office building in fiscal year (FY) 2019, the Plutonium Facility in FY-22, the Weapons Engineering Tritium Facility in FY-22, the RANT Shipping Facility in FY-24, and the Transuranic Waste Facility in FY-26.

**Plutonium Facility–Error Likely Situation:** On Thursday, the resident inspectors and visiting staff observed a floor storage location in a laboratory processing room that contained a backlog of about 80 individual containers of special nuclear material awaiting disposition by the transuranic waste organization. The consequence of this situation is that any material transfer associated with this location requires workers to verify information for each of the containers—a time consuming and error likely situation. This large number of containers also increases the area radiation exposure hazard to the workers.

**Weapons Engineering Tritium Facility–Readiness:** On Tuesday, the NNSA Field Office approved Triad's recent startup notification report (see 1/4/2019 report) that rescinded formal readiness review requirements for the venting of the Flanged Tritium Waste Containers that contain potentially explosive headspace mixtures of oxygen and hydrogen isotopes.

**Chemistry and Metallurgy Research Facility:** Last Friday, the NNSA Field Office unconditionally approved the annual update to the safety basis. However, the approval letter noted three points associated with outdated information and requested these be addressed in the next annual update. The points included: (1) referencing an obsolete version of DOE Order 420.1C, *Facility Safety*; (2) using local population data from 2005 rather than the most recent census data obtained in 2010; and (3) using wind data from 1999 and 2006 contrary to the statement in DOE-STD-3009 that states methodology should be consistent with Nuclear Regulatory Commission specifications indicating that the wind data should not be older than 10 years.

**Plutonium Facility–Safety Basis:** Last Wednesday, the NNSA Field Office approved a revision to an Evaluation of the Safety of the Situation (ESS) originally developed in 2015 (see 9/4/2015 report) regarding pipe overpack containers (POC). The revised ESS incorporates recent DOE guidance based on experimental testing indicating that POCs with a certain plastic replacement filter installed on their outer container can be considered to have a damage ratio of zero for credible fire scenarios. Triad expects to replace all affected POC filters by December 2019. The field office noted that Triad's request to extend the expiration date of the ESS for two years was contrary to DOE expectations, agreed that replacement of filters on the outdoor storage locations was the correct priority, and requested quarterly updates via email on the progress of filter replacements.