

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 22, 2016

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending December 23, 2016

Weapons Engineering Tritium Facility (WETF)–Flanged Tritium Waste Containers (FTWC): Last Friday, LANL submitted to the NNSA Field Office for review and approval an Evaluation of the Safety of the Situation (ESS) for the Potential Inadequacy of the Safety Analysis declared for three FTWCs stored within WETF that may be pressurized with a potentially explosive headspace mixture of oxygen and hydrogen isotopes (see 11/17/16 weekly). The ESS concludes that the current situation is safe based upon the immediate actions taken to provide increased management oversight, strict operational control over the area containing the FTWCs, and a prohibition on moving or venting the FTWCs. WETF safety basis personnel contend in the ESS that with these controls in place it is extremely unlikely that any electrical, mechanical, or thermal ignition source could ignite the potentially explosive mixture.

Inappropriately Remediated Nitrate Salt (RNS) Waste–Safety Basis: Last week, the EM Field Office transmitted to LANL a letter approving four proposed changes to the Area G and Waste Characterization Reduction and Repackaging Facility (WCRRF) safety bases as well as LANL’s Transportation Safety Document. LANL submitted these changes to meet the Conditions of Approval identified in the Safety Evaluation Report approving the safety basis documents needed to support final treatment of the RNS waste into an acceptable waste form (see 10/14/16 weekly).

Area G–RNS: Last week, the Area G facility operations director declared revision 6.1 of the ESS for safe storage of RNS waste implemented (see 11/25/16 weekly). Following this declaration, operators completed lid removal from the remaining standard waste boxes containing RNS waste in pipe overpack containers and installed pressure relief devices with supplemental filtration onto the 55 gallon drums housing the pipe components. This action represents the final activity necessary to implement all of the controls specified in the ESS.

Plutonium Facility–Safety Basis: On Monday, LANL submitted to the NNSA Field Office a request to further extend the ESS/Justification for Continued Operations (JCO) governing nuclear criticality safety for two rooms in the facility vault (see 6/24/16 weekly). LANL originally submitted this ESS/JCO in December 2012, but limited criticality safety resources and prioritization of these resources on Plutonium Facility resumption activities has resulted in delays in completing and receiving approval of the criticality safety evaluations needed to close this ESS/JCO.

Plutonium Facility–Readiness Activities: On Wednesday, a management self-assessment (MSA) team conducted an in-brief for their upcoming review of aqueous chloride processing in the Plutonium Facility. The MSA for aqueous chloride operations is the first readiness activity scheduled to be performed following the completion of the formal restart project of Plutonium Facility operations accomplished earlier this year (see 9/9/16 weekly). The MSA team will conduct their review in two phases. Phase 1 will focus on document reviews and will commence January 9, 2017. Phase 2 will involve field activities and is scheduled to begin on January 19, 2017.