

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 9, 2015

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending October 9, 2015

Weapons Engineering Tritium Facility (WETF)–Restart Activities: On Tuesday, the federal readiness assessment team briefed the results of their assessment of tritium gas transfer operations. The team noted that all review objectives were met and identified three findings related to quality assurance and radiation protection. The team concluded that subject to satisfactory closure of all pre-start findings the facility is ready to operate safely. Additionally, the team commended WETF personnel for: (1) their exceptional rigor and formality in conduct of operations, (2) a comprehensive and well-implemented drill and exercise program, and (3) using lessons learned from Plutonium Facility readiness activities to strengthen preparation. The success with the readiness assessment is a significant milestone as gas transfer operations have not occurred since 2010 and restart of this activity is essential to reducing risk through the disposition of legacy tritium materials.

Plutonium Facility–Safety Systems: In accordance with guidance from the Secretary of Energy, the Acting NNSA Deputy Administrator for Defense Programs recently requested an Analysis of Alternatives (AoA) for planned upgrades to the Plutonium Facility. In particular, this AoA will focus on Phase III of the TA-55 Reinvestment Project (see 6/5/15 weekly) consisting of the following sub-projects: (1) fire alarm system replacement, (2) upgrading the active confinement ventilation system to safety class, and (3) separating non-seismically qualified structures from the safety class fire water supply loop. Of note, these upgrades are highlighted in LANL’s Project Execution Strategy to further reduce consequences from the Plutonium Facility resulting from seismically induced events. Results of the analysis are due no later than February 26, 2016.

Plutonium Facility–Safety Basis: Last Wednesday, Plutonium Facility management declared complete phase 2 of the implementation plan for the 2014 safety basis, revision 0.4. This step eliminated two Evaluations of the Safety of the Situation and one Temporary Modification, bringing the facility closer toward the goal of a consolidated and up-to-date safety basis. Facility management plans to complete phase 3 of the implementation plan by December 16, 2015.

Area G–Fire Protection: On Monday, operators entered their abnormal operating procedure for a discovery of an airborne, liquid, and/or solid material spill after receiving reports of water emanating from an underground firewater supply main. Fire suppression systems are not credited at Area G, but nonetheless provide an essential element of defense-in-depth. At the discretion of the shift operations manager, a fire watch was established and fire protection management notified. Fire protection subsequently informed the fire department of the impairment enabling them to consider adjusting response plans accordingly. Workers completed the repair on Wednesday

Safety Basis: Last Wednesday, LANL management transmitted to the NNSA Field Office a proposed protocol to perform atmospheric dispersion for use in safety analyses at the nuclear facilities. The protocol consolidates several improvements including updated meteorological data, recalculation of facility-specific values for deposition velocity and surface roughness, and evaluation of canyon effects. LANL requested Field Office review and concurrence prior to executing a schedule to implement the new protocol.