

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 13, 2018

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: J.W. Plaué and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending April 13, 2018

Confinement Vessel Disposition (CVD) Project: On Wednesday, CVD personnel discovered that daughter transuranic waste drums were being moved to a low dose area for non-destructive assay that was not covered in the criticality safety evaluation document. About 65 of these material moves occurred since February 2018. Facility management has a number of planned corrective actions including revising procedures to perform assays in an approved location and revising the criticality safety evaluation to include the new location.

Plutonium Facility–Work Control: A worker manipulated potentially energized 120 V wires without the required energized electrical work permit. Subsequent locking of the breaker was unsuccessful due to an ineffective locking device. Work continued with the breaker tagged, but not locked. At the fact-finding meeting held on Tuesday, participants noted that laboratory management had previously eliminated periodic retraining on lockout/tagout against the advice of subject matter experts. Lockout/tagout program personnel noted that they are revisiting their policy to address known worker confusion between hazardous energy isolation and system configuration control in advance of about two thirds of the program users requiring retraining by November 2018 per the current national consensus standard.

Plutonium Facility–Safety Basis: Last Friday, safety basis personnel provided the NNSA Field Office with an Evaluation of the Safety of the Situation (ESS) for storage of heat source plutonium in safes (see 3/2/2018 report). There are no additional compensatory measures, since the material was already removed. Analysis supporting storage in these safes was outside of the scope of this ESS so they remain an unauthorized storage location.

Safety Basis: Last week, LANL management responded to the NNSA Field Office with their tentative plan and schedule for achieving DOE-STD-3009-2014 compliant safety bases (see 2/23/2018 report). The proposal includes a submittal next month of a DOE-STD-3009-2014 compliant safety basis for the Radiological Laboratory Utility Office Building upgrade to a hazard category 3 nuclear facility. For the Plutonium Facility, the strategy is to: approve a unified safety basis by October 2018; update the unified version with new material-at-risk values, as well as new leak path factor and atmospheric dispersion modeling in October 2019; and ultimately submit a DOE-STD-3009-2014 compliant safety basis in October 2024. The other nuclear facilities are serially staggered between these time frames.

Federal Oversight: Last week, the NNSA Field Office requested that LANL management submit a plan by May 5, 2018, to develop a strategy that will accomplish integration of ongoing improvement initiatives to safely support required increases in pit production demands. The field office cites the need to integrate ongoing initiatives associated with safety basis unification, conduct of operations enhancements, nuclear criticality safety improvements, and transuranic waste system effectiveness with supporting infrastructure and safety management program efforts.

Transuranic Waste Facility: Last week, the NNSA Field Office conditionally approved with directed changes the ESS associated with the waste acceptance criteria issue (see 3/16/2018 report). The pertinent directed change requires the development of a Specific Administrative Control to protect the initial condition that runaway reactions or energetic events will not occur.