

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 11, 2018

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending May 11, 2018

DNFSB Staff Activity: A.M. Hutain observed the emergency exercise discussed below.

Emergency Management: On Thursday, laboratory personnel conducted their annual full-scale exercise. This year's scenario involved a simulated helicopter crash into the Weapons Engineering Tritium Facility that resulted in a fire and three injured and tritium-contaminated patients. Participating response elements included the facility command, Security and Emergency Operations assets, Protective Force, Los Alamos County Fire and Police Departments, the Federal Aviation Administration, and the Los Alamos Medical Center. Exercise players provided self-critical feedback during the hot washes and noted several recurring issues including: incomplete notifications to the workforce; confusion between shelter-in-place and stay put protective actions; difficulties with radio and mobile phone connectivity; delays in medical response to patients; workforce personnel disobeying road blocks; and a lack of understanding on the hazards and detection methods for tritium by some response elements. Exercise controllers will conduct formal critiques and develop an after action report in the coming weeks. A team of NNSA personnel also provided oversight assistance to the field office.

Safety Basis: Last month, the DOE Office of Enterprise Assessments issued their report on the development and maintenance of safety bases at LANL. The report notes that LANL has increased its safety basis staffing and has adequate procedures, training and qualification, and unreviewed safety question processes. However, the report notes inadequate implementation of the quality assurance processes needed to improve the quality of safety basis submittals and the lack of associated assessments and metrics that could help drive improvements in this area. The report also notes persistent differences between LANL and NNSA Field Office personnel on the interpretation of safety basis requirements, despite recent initiatives to improve alignment.

Plutonium Facility–Infrastructure: On Tuesday, LANL management submitted to the NNSA Field Office for approval the safety design strategy for the fire alarm system replacement as part Phase 3 of the TA-55 Reinvestment Project. The project is being executed in accordance with DOE-STD-1189-2016.

On Wednesday, the NNSA Field Office unconditionally approved a safety basis addendum needed to install a modern chlorine gas delivery system in support of pyrochemical programmatic operations. The new system uses larger capacity source bottles and supports higher pressure gas delivery to an additional glovebox.

Plutonium Facility–Conduct of Operations: Last week, an observant worker noted a waste drum that did not have a label indicating it had gone through the in-service inspection required by the Technical Safety Requirements. An extent of condition on every waste drum in the facility discovered a handful of additional drums with errors in labeling or paperwork related to in-service inspections. All of the discrepancies have been addressed.