

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 2, 2015

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending January 2, 2015

The Year on a Page: The key happenings of 2014 and a look at the year ahead as distilled by the Site Reps:

- The Field Office gained a permanent Manager; however, several key management and safety related positions remain vacant. LANL created a new Associate Deputy Director position and appointed a new Deputy Director, a new Principal Associate Director for Operations, and several new managers associated with transuranic waste operations.
- Plutonium Facility (PF-4) operations remain largely dormant 18 months after the LANL Director's pause stemming from criticality safety and conduct of operations issues. PF-4 personnel spent much of the last six months preparing for the expected 10 federal readiness assessments (FRA) required to restart the complete suite of programmatic operations. The first contractor readiness assessment (CRA) is set to begin on January 12, 2015, with the entirety of the restart effort planned to span the duration of the year.
- The PF-4 safety posture improved with the completion of reinforcements to eight vault columns and strengthened seismic anchorages to the fire suppression, electrical, and ventilation systems. The year 2015 is set to include planned reinforcements to the roof girders, additional safety system upgrades, and perhaps the completion of the alternative seismic analysis of the facility, which is currently stalled.
- In May 2014, photographic evidence revealed a transuranic waste drum originating from LANL contributed to the radiological release at the Waste Isolation Pilot Plant. Since then, LANL personnel have spent considerable effort investigating how processes failed and allowed nitrate salts to be mixed with wheat-based cat litter, how a chemical reaction initiated in this mixture and breached the drum, and how similar drums can be safely treated to rectify the situation. Treatment operations are likely to commence later in 2015; meanwhile, transuranic waste operations remain largely curtailed.
- Following nearly a year of troubleshooting the Oxygen Monitoring System, the Weapons Engineering Tritium Facility (WETF) conducted a CRA to restart gas transfer operations, which have not occurred since 2010 and are required to support risk reduction efforts. The CRA identified that facility performance was insufficient to support safe operations. In early 2015, WETF management plans to re-perform the CRA ahead of a FRA. In parallel, personnel continue to achieve minor gains in risk reduction through direct-discard of tritium contaminated legacy items into Flanged Tritium Waste Containers for disposal at Area G.
- After a period of uncertainty on the approach to terminate programmatic operations in the Chemistry and Metallurgy Research building by 2019, NNSA and LANL moved forward with the first two steps of the Plutonium Strategy. Facility work supporting these steps is to commence in early 2015.
- In June 2014, LANL closed all the pre-start findings from the October 2013 Operational Readiness Review for the Confinement Vessel Disposition project. Since then, project personnel successfully cleaned out the first of nine vessels. They plan to process another two in the remainder of fiscal year 2015.
- The Nuclear Criticality Safety Division gained a new manager, three new experienced analysts, and four new junior analysts. The Division issued about 100 new criticality safety evaluations in the past year and will need to generate several hundred more to support the full restart of PF-4.