

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 23, 2015

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending January 23, 2015

Transuranic Waste Management: Last week, the field office requested a plan from LANL for sustaining operations during the shutdown of the Waste Isolation Pilot Plant (WIPP). The response provided an outline of waste generation and storage status and commits to providing a quarterly status report. The quarterly reports will assume LANL shipments to WIPP commence by October 1, 2016. The response also notes that the current inventory at Area G is at 28k of the 57k Pu-239 equivalent curie limit in the safety basis and that Area G personnel expect to implement use of pipe overpack containers in the safety basis later this spring. The use of pipe overpacks allows for a 90 % reduction in material-at-risk (MAR).

Plutonium Strategy: On Wednesday and Thursday, NNSA and LANL personnel conducted a working meeting in support of development of a final recommendation on whether to upgrade the Radiological Laboratory Utilities Office Building to a Hazard Category 3 nuclear facility to be operated at a limit of 400 g Pu-239 equivalent (see 10/24/14 weekly). The team expects to present their recommendation to senior NNSA leadership next month.

Plutonium Facility–Emergency Management: Last week, personnel conducted a facility-level drill for the readiness assessment team. The drill scenario involved a continuous air monitor alarm and an injured contaminated patient. In contrast with institutional-level exercises, responders donned respirators, performed field decontamination techniques, and physically loaded and moved the contaminated patient without simulation. In the last few months, facility personnel have initiated these style drills in preparation for upcoming readiness assessments (RA). Eventually, this effort will need to translate into a documented drill program to cover the full spectrum of potential abnormal events, locations, times of day, and personnel.

Plutonium Facility–Restart Activities: On Friday, the contractor RA team for the T-Base II machining activity out-briefed their results to management. The team identified two pre-start findings associated with the quality of evidence packages for the assessment prerequisites and the inability of planning and resource allocation processes to preserve the integrity of the facility safety envelope. The team identified three post-start findings associated with non-compliant material labeling practices for criticality safety, non-compliant criticality safety evaluations, and incomplete criticality self-assessments. In addition, there were 25 opportunities for improvement. Of note, the team commended the work crew associated with the machining activity as a model for others to follow. The federal RA for T-Base II is currently scheduled for May. The next contractor RA will cover the balance of machining operations and is scheduled to begin in mid-February.

Plutonium Facility–Quality Assurance: During the past several months, Plutonium Facility management declared multiple Technical Safety Requirement (TSR) violations associated with the failure to properly execute surveillances of MAR limits using the MAR Tracker software tool (see 11/7/14 weekly). In response to these failures, Plutonium Facility personnel performed an extent of condition review that identified additional issues with the MAR Tracker software (see 1/9/15 weekly). LANL recently reported to the field office that the exhaustive extent of condition review was completed and all surveillances have been performed to ensure the facility safety envelope is intact. Based on these actions, Plutonium Facility management reports that there is a high level of confidence that the related MAR Tracker issues have been resolved. Assurance personnel are continuing the latest of several causal analyses for these issues to ensure corrective actions are implemented that prevent future MAR Tracker configuration issues.