

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 6, 2018

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending July 6, 2018

Management: On Tuesday, LANL management formally assigned the TA-55 Facility Operations Director (FOD) with control of the RANT Shipping Facility and the Waste Characterization, Reduction, and Repackaging Facility (WCRRF). This change is intended to better leverage the safety management programs in place at TA-55. As a result of this consolidation, the TA-55 FOD now covers all of the NNSA nuclear facilities with the exception of the Weapons Engineering Tritium Facility. The priority for RANT will be restarting operations this winter. WCRRF will remain in cold standby for the foreseeable future while NNSA continues to study the need for remediation of its existing waste inventory. In addition, LANL management is considering the potential for some out-year facility stabilization activities including the removal of the size reduction enclosure.

Transuranic Waste Facility (TWF): Last week, TWF safety basis exited the New Information process associated with questions regarding the implementation of a Specific Administrative Control (SAC) covering the waste acceptance criteria for waste containers received from the Confinement Vessel Disposition project (see 6/22/2018 report). They determined that the situation did not warrant a potential inadequacy of the safety basis, but required revision of the safety basis at the next annual update. Their justification includes, “The fact that the references are lacking does not necessarily mean the SAC has not been implemented or has been implemented incompletely; on the contrary, the information required to verify the SAC is effective does exist (and has existed for some time).” The New Information form then goes on to explain how each of the SAC performance criteria are met for the vessel disposition waste.

Nuclear Materials Management: Last month, LANL hosted a quarterly program review for the NNSA’s Material Recycle and Recovery and Storage programs. LANL personnel reported accomplishments including: transuranic waste shipping efforts to TWF, disposition of a 100 containers as part of the vault work-off effort; identification of process improvements on through-put for non-destructive assay; progress with the Chemistry and Metallurgy Research (CMR) facility de-inventory; efforts to identify a replacement for polyvinyl chloride bag-out bags; and progress on developing an in-glovebox certified container. They also highlighted impediments with CMR de-inventory associated with the disposition of various uranium-233 containing items.

Plutonium Facility–Waste Management: Plutonium-238 operations personnel are exploring methods to improve the efficiency of the waste management practices. In particular, bench-scale aqueous operations generate substantial quantities of glovebox gloves from frequent changes, as well as plastics from carboys used for staging solutions. Other challenging waste forms include hydroxide cakes and cheesecloth used for the decontamination of fuel clads. This waste generation creates challenges for housekeeping and compliance with transient combustible loading limits. Currently, all plutonium-238 waste is required to be dispositioned in pipe overpack containers, which have restrictive payload volumes. Notably, the use of the pipe overpacks even applies if the inner contents include other certified containers types (i.e. SAVY containers). Logistics personnel are examining the feasibility of relaxing this limitation and utilizing 55-gallon drums and standard waste boxes for certain materials in order to improve the throughput and minimize worker radiological exposure during waste management processes.