

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 30, 2016

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending September 30, 2016

DNFSB Staff Activity: P.J. Migliorini was on site this week for an indoctrination visit as he assumes the role of the Board's Cognizant Engineer for DOE-EM activities at LANL.

Inappropriately Remediated Nitrate Salt (RNS)–Safety Basis: This week, senior management from EM and NNSA headquarters, as well as participants from DOE's Offices of Nuclear Safety and Enterprise Assessments met on site to convene a Senior Review Board (SRB) for the safety basis changes needed for final treatment of the RNS waste (see 9/23/16 weekly). SRB members included the NNSA Cognizant Secretarial Officer (CSO) for Safety, NNSA's Central Technical Authority, EM and NNSA's Chiefs for Nuclear Safety, EM's Deputy Assistant Secretary for Safety, Security, and Quality Assurance, and both EM and NNSA Field Office Managers. The SRB identified and discussed their technical issues with the Safety Evaluation Report (SER) developed to approve the safety basis changes, and presented these issues to the Safety Basis Review Team to resolve. Over the course of the three day meeting, this process resulted in the development of a SER that all members of the SRB agreed provided an adequate safety basis for treating the RNS waste. The NNSA CSO is expected to give final approval of the SER next week.

Weapons Engineering Tritium Facility (WETF)–Lessons Learned: On Thursday, WETF operations and program personnel convened a learning team to study an event that occurred during a gas transfer operation resulting in an inadvertent transfer of tritium into the Tritium Waste Treatment System. LANL uses learning teams as a Human Performance Improvement tool to improve processes, to plan work, and to learn from events. In this case, the learning team met to identify process improvements that could help prevent a similar incident in the future. The learning team identified potential process improvements that included procedural changes, equipment configuration modifications, and mentoring opportunities.

Plutonium Infrastructure Strategy: On Wednesday, the NNSA Field Office Manager approved a revision to the Safety Design Strategy (SDS) for the PF-4 Equipment Installation (PEI) subproject. The PEI subproject involves 17 gloveboxes that will house analytical chemistry and materials characterization equipment. Thirteen of these gloveboxes are existing installed equipment that will be repurposed as part of the subproject. In a previous revision of the SDS, LANL identified that eight of the repurposed gloveboxes did not meet the existing safety basis requirement for Performance Category (PC)-2 seismic criteria (see 11/6/15 weekly). In this newest revision, LANL references an engineering evaluation of the seismic qualification of these glovebox stands to conclude that these gloveboxes can meet their required PC-2 seismic criteria with a high degree of confidence because of redundancies in the seismic load path. In the approval letter, the NNSA Field Office Manager also agreed with LANL's proposed strategy to submit a safety basis page change to delete the requirement that all new glovebox stands meet PC-3 seismic criteria.

Plutonium Facility–Infrastructure: On Wednesday, Plutonium Facility personnel returned the diesel firewater pump to service (see 8/23/16 weekly) and exited the associated Limiting Condition for Operation following repair and retest.