

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 28, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending July 28, 2017

Waste and Fuels Management Project. The contractor declared PISAs for the Container Storage Building and Waste Encapsulation and Storage Facility safety bases when they determined that consequences from a seismic event that initiates a fire could result in higher consequences than either the seismic or fire design basis accidents currently included in the facility DSAs. The PISAs were identified as part of an extent of condition review after RL reviewers identified a similar deficiency in the Solid Waste Operating Complex DSA.

The RL Senior Review Board (SRB) met to consider approval of a revised DSA for the Solid Waste Operating Complex. The revision is significant and safety basis review team (SBRT) reviewers identified a number of concerns that will require follow-on action by the contractor. In particular, the SBRT found that existing controls designed to protect workers and the public are not adequate for several design basis accidents. The SRB recommended approval with one condition of approval and five directed actions. The condition of approval restricts retrieval of waste in the Low Level Burial Grounds and the five directed actions require the contractor to evaluate additional controls to protect workers and the public, provide technical justification for container damage ratios used for accident analysis, and resolve other open RL questions.

Sludge Treatment Project. RL approved a one-time request for shipment that allows transportation of sludge from K West Basin to T Plant. The approval is supported by a safety evaluation that determined that the safety performance of the cask and the sludge transport and storage container meet applicable Transportation Safety Document safety standards for onsite transportation of the sludge. The approval supports RL's intent to start sludge retrieval early in calendar year 2018. It is valid for five years and allows up to 45 shipments to T-Plant.

242-A Evaporator. A power transfer switching unit failed while restoring normal power after completing a test of the standby diesel generator. This resulted in loss of ventilation, compressed air, control, and radio communication systems. The contractor is investigating the cause.

Tank Farms. The contractor's Executive Safety Review Board approved the Root Cause Analysis for the ignition control TSR violation during work in SY farm (see Activity Report 4/14/2017). The analysis determined that the relevant processes are overly reliant on expert knowledge and experience instead of clearly defined program elements.

222-S Laboratory. The contractor's Joint Review Group (JRG) approved, with comments, a work package to replace two pumps and the piping to a third in the 219-S vault (see Activity Report 11/4/2016). JRG members had substantial comments on the package and determined that workers should perform a mockup of a critical portion of the task before work accomplishment.

PUREX Plant. The contractor issued their conceptual design for grouting storage tunnel one. They expect to issue the subcontract for grout placement in early August.