DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 1, 2017

TO: Steven A. Stokes, Technical Director
FROM: Austin R. Powers, Cognizant Engineer
SUBJECT: Nevada National Security Site (NNSS) Report for August 2017

DNFSB Staff Activity: A. Powers was on site from August 21st to 24th to observe the federal operational readiness review (FORR) at the U1a Complex for hazard category 2 operations. While on site, the Board's staff member was also able to observe interviews associated with the Implementation Verification Review (IVR) for two change notices to the Device Assembly Facility (DAF) Documented Safety Analysis.

DAF Fire Suppression System (FSS) Improvement Project: During the month of August, National Security Technologies, LLC (NSTec), continued to make improvements to the FSS in DAF. NSTec has continued construction activity for the 16th building out of the 25 buildings in which NSTec plans to make FSS improvements. Specifically, NSTec has completed the excavation of the lead-in line (i.e., the trench is complete and the old lead-in line has been removed). NSTec has begun to lay the new lead-in line in the trench. NSTec plans to begin placing Controlled Low Strength Material (CLSM) around the line during the month of September. NSTec anticipates that all construction activity will be complete and the building will be operable by the end of fiscal year 2017. Also, NSTec construction has addressed the sprinkler deficiencies for the 1st and 2nd buildings out of 25 during the month of August. These buildings had their lead-in lines addressed during fiscal year 2015, but NSTec was not able to address the sprinkler deficiencies at that time. Lastly, the 20th building (and last building to be addressed this fiscal year) has been released to NSTec construction. The 20th building will be the second building addressed on the north side of the DAF. NSTec construction plans to abandon the lead-in line and tie the FSS into the fire loop inside of DAF. NSTec construction is also planning to address the sprinkler deficiencies in this building while the building is inoperable.

U1a Complex FORR: During the month of August, a FORR team was assembled to confirm operational readiness for subcritical experiment activities at the U1a Complex after completion of its upgrade to a hazard category 2 nuclear facility (required per Department of Energy [DOE] Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*). The FORR team consisted of personnel from DOE Headquarters, Los Alamos Field Office, Lawrence Livermore Field Office, and Nevada Field Office. The FORR evaluated the same systems, structures, and components as the contractor operational readiness review (CORR). The Board's staff is expecting the final report for the FORR to be issued late-August, in which it will list the FORR team's pre- and post-start findings. The Board's staff did not identify any immediate safety-related concerns during the FORR. The Board's staff also noted that the NSTec project team had closed 10 of the 12 pre-start findings from the CORR prior to the start of the FORR. NFO has validated and verified the closure of each CORR pre-start finding.

Full-Scale Compatibility Testing (FSCT) Operations: During the month of August, Lawrence Livermore National Laboratory personnel conducted FSCT operations for the first time (see NNSS Monthly Ending May 2017 for FSCT description) at DAF. No safety issues were identified in association with this the new operation in DAF.