

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 4, 2017

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

DNFSB Staff Activity: D. Burnfield and A. Powers were at the U1a Complex July 17–20 to observe the contractor operational readiness review (CORR) for hazard category 2 operations.

NNSS Contractor Update: During the month of July, the National Nuclear Security Administration (NNSA) announced that the management and operating contractor transition from National Security Technologies, LLC (NSTec), to Mission Support and Test Services, LLC (MSTS), will begin on August 1, 2017. The incoming site manager and deputy site manager for MSTS are Mark Martinez and John Benner, respectively.

Device Assembly Facility (DAF) Fire Suppression System (FSS) Improvement Project: During the month of July, 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 been digging potholes to validate the location of the lead-in line. NSTec still needs to address the sprinkler deficiencies on the first floor for the 16th building. Also, NSTec construction has postponed construction plans to address the sprinkler deficiencies for the 1st and 2nd buildings out of 25. NSTec plans to resolve these deficiencies for the 1st and 2nd buildings out of 25 by the end of September. Meanwhile, NNSA has approved the baseline change request for the lead-in line replacement project. The deadline to address FSS improvements in all 25 of the buildings is the end of fiscal year 2018. The NNSS cognizant engineer will continue to follow the progress of the improvements made to the DAF FSS.

U1a Complex CORR: During the month of July, NSTec chartered a CORR team to confirm operational readiness for subcritical experiment activities at the U1a Complex after completion of its upgrade to a hazard category 2 nuclear facility. The CORR evaluated the systems, structures, and components (SSC) that were elevated to safety significant in the new U1a Complex safety basis (hoist control system) and SSCs that were modified and have not previously been subject to a readiness review (e.g., fire detection system, fire barrier, Zero Room post-execution ventilation system, and Zero Room structure). The final report for the CORR was issued in July. In the final report, the CORR team identified fourteen findings (twelve pre-starts and two post-starts) in the following areas: configuration management, explosives safety, fire protection, hoisting and rigging, maintenance, management, conduct of operations, procedures, radiation protection, and safety basis. The CORR team's findings were consistent with what the Board's staff observed during the assessment. The Board's staff identified several additional items to follow as the facility proceeds through the startup process but did not identify any immediate safety-related concerns during the CORR. The Board's staff plans to be on site to observe the Federal Operational Readiness Review, which is scheduled for August.

Joint Actinide Shock Physics Experiment Research (JASPER): During the month of July, JASPER conducted Surrogate Shots 156 and 157 successfully. The experiments were executed in a safe manner with no safety issues to report.