DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 6, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: Austin R. Powers, Cognizant Engineer
SUBJECT: Nevada National Security Site (NNSS) Report for October 2020

DNFSB Staff Activity: During October, A. Powers, D. Brown, T. Davis, and M. Dunlevy conducted a teleconference review of the Radioactive Waste Management Complex (RWMC) safety basis with personnel from Mission Support and Test Services, LLC (MSTS), the Nevada Field Office (NFO), the Department of Energy Environmental Management Nevada Program, and Navarro Research and Engineering, Inc. The review focused on the current hazard analysis, accident analysis, and credited control set for the RWMC. MSTS also provided an update on the next annual update for the RWMC safety basis, including plans to address the non-conservative legacy issues (as discussed in the NNSS Monthly Report for April 2020). The Board's staff conducted no onsite activities during October.

COVID-19 Impact: During October, NNSS remained in Phase 2 of its return to work plan. In this phase, NNSS continued to be in the "Normal Operation with Maximum Telework" work status. The increase in confirmed COVID-19 cases in Nevada has not impacted the ability of MSTS to maintain required staffing at the NNSS defense nuclear facilities.

Device Assembly Facility (DAF) Downdraft Table: During October, MSTS performed the in-service inspections (ISIs) for the DAF downdraft table safety significant confinement system and secondary confinement structure. MSTS credits the confinement system to provide confinement for operations involving radiological materials. While the secondary confinement structure also provides confinement, MSTS only credits it to provide structural support to other safety controls. During the ISIs, MSTS identified a penetration that was not properly sealed on the primary confinement structure. The penetration is approximately 1 inch in diameter and was created for a telephone wire conduit. In addition to the improperly sealed penetration, MSTS identified loose bolts. As a result, the controls failed the ISIs, and MSTS declared the downdraft table inoperable. As discussed in the NNSS Monthly Reports for February and July 2020, MSTS and Lawrence Livermore National Laboratory (LLNL) personnel recently completed readiness assessments to restart downdraft table operations. While MSTS has previously implemented this inspection procedure leading up the readiness activities, MSTS did not identify the loose bolts and open penetration as suspect conditions. Of note, LLNL personnel have yet to use the downdraft table for radiological operations. Therefore, there was no contamination attributed to the loose bolts or open penetration. MSTS is currently developing a nonconformance report and plans to address the deficiencies. MSTS expects to resolve the operability of the downdraft table prior to radiological operations.

Joint Actinide Shock Physics Experimental Research (JASPER) Facility: As discussed in the NNSS Monthly Report for August 2020, JASPER personnel dropped the 28 mm launch tube when using a shop crane. As a result of this event, JASPER and LLNL personnel updated their procedures and implemented a checklist to use prior to all JASPER rigging and crane operations. During October, JASPER personnel successfully changed out the two launch tubes with no issues.