

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 3, 2017

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

DNFSB Staff Activity: D. Andersen, C. Berg, and A. Powers were on site February 6th to 9th to observe and assess the adequacy of the annual in-service inspection (ISI) of Gravel Gertie catenary cables for a cell room at the Device Assembly Facility (DAF). In addition to the Gravel Gertie ISI, the staff also visually examined the internal structural condition of criticality experiment rooms, received a status report on progress to update the DAF seismic hazard evaluations, and performed a walk down at the U1a Complex and Joint Actinide Shock Physics Experimental Research facility.

DAF Fire Suppression System (FSS) Improvement Project: During the month of February, National Security Technologies, LLC (NSTec), continued to make improvements to the FSS in DAF. NSTec construction has completed the construction activities that address the lead-in line issue for one more building (building 14 out of 25). NSTec construction is still working on addressing the sprinkler deficiencies for this building. NSTec is projecting that this building will be turned over to facility personnel during the month of March. The facility personnel will then perform surveillance testing to ensure there are no leaks within the system. NSTec expects the building to be returned to operable status during the month of April. NSTec construction also began construction activities on another building (building 15 out of 25) during the month of February, in which it will address only the lead-in line (the sprinklers have an overhead spacing equivalency). NSTec anticipates having the construction activities completed during the month of March and returning the building to operable status during the month of May. NSTec is also planning to start construction activities for yet another building (building 16 out of 25) during the month of March. This building will have the lead-in line outside of the facility excavated and replaced, similar to the buildings addressed in the NNSS Monthly Report for February 2016.

U1a Complex Safety Basis Update: As discussed in the NNSS Monthly Report for December 2016, the safety evaluation report (SER) for the U1a Complex safety basis was transmitted from the Nevada Field Office (NFO) to NSTec. The SER identified six conditions of approval and four issues that needed to be resolved by the next update. NSTec safety basis personnel are currently working with the NFO safety basis review team (SBRT) to resolve the six conditions of approval. Specifically, NSTec is working on revising the safety basis to provide more discussion and justification for fire events, debris falling on to the subcritical experiment package scenario, and the rapid descent of the package down the shaft scenario. Discussions between the SBRT and NSTec indicate that NSTec safety basis personnel will modify the hazards analysis to separate the fire scenarios for when personnel are present in the complex and when personnel are not present in the complex, mainly because the U1a Complex does not have a fire suppression system. NSTec will identify a different set of applicable fire protection controls for each scenario. Also, the SBRT anticipates NSTec safety basis personnel will update the safety designation for certain components of the hoist system to safety significant (which will impact the surveillance requirements and maintenance activities for these components). NFO is expecting the condition of approval resolution package for the safety basis to be submitted during the month of March.