

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 6, 2017

**TO:** Steven A. Stokes, Technical Director  
**FROM:** Austin R. Powers, Cognizant Engineer  
**SUBJECT:** Nevada National Security Site (NNSS) Report for December 2016

**DNFSB Staff Activity:** J. Deplitch and A. Powers were on site December 5<sup>th</sup>-15<sup>th</sup> to conduct the quarterly cognizant engineer site visit and observe the Device Assembly Facility (DAF) Functional Exercise, improvements and upgrades on credited safety systems and controls at the DAF and U1a Complex, and ongoing operations.

### **DAF and National Criticality Experiments Research Center (NCERC) Safety Basis**

**Update:** The Nevada Field Office (NFO) has received the 100 percent complete Change Notice 1-1 DAF and NCERC Documented Safety Analysis (DSA) revision from National Security Technologies, LLC (NSTec). NSTec initiated the Change Notice to account for the inoperable status of the DAF fire suppression system (FSS). The safety basis review team (SBRT) completed their review of the DSA. The SBRT approved the DSA in the Safety Evaluation Report (SER) with eight conditions of approval and seven issues that need to be resolved by the next DSA update. The conditions of approval include revising parts of the DSA appendices and technical safety requirements to provide consistency throughout the safety basis documents and providing additional information on the safety function for the fire watch. NSTec is still developing a path forward to resolve the eight conditions of approval.

**U1a Complex Safety Basis Update:** NFO has received the 100 percent complete U1a Complex DSA revision from NSTec. NSTec initiated the DSA revision to account for the change in hazard categorization (HC) for the facility (changed from HC-3 to HC-2). The SBRT has completed their review for the revised U1a Complex DSA and developed the SER. During the month of November, the SER was transmitted from NFO to NSTec. The SER has identified six conditions of approval and four issues that need to be resolved by the next DSA update. The conditions of approval include revising parts of the DSA for consistency purposes and reevaluating the hazard scenario for a fire involving the diagnostic test object and the hazard scenarios for the rapid descent of the package down the shaft. NSTec is currently working on developing a path forward to address the conditions of approval.

**DAF FSS Improvement Project:** During the month of December, NSTec, continued to make improvements to the FSS in DAF. NSTec construction has completed the construction activities that address the lead-in line issues and sprinkler deficiencies for one building. NSTec facility personnel declared this building to be operable during the month of December. NSTec construction personnel are still conducting construction activities that address the sprinkler deficiencies and lead-in line for another building separate from the building discussed above. NSTec plans to return this building to operable status during the month of January. NSTec construction has also begun construction on yet another building during the month of December. This building does not have sprinkler deficiencies. To summarize the past year, NSTec has addressed the lead-in line issues and declared operable nine buildings. NSTec has also addressed the sprinkler deficiencies in six buildings. The NNSS cognizant engineer will continue to follow the progress of the improvements made to the DAF FSS.