

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 1, 2018

TO: Steven A. Stokes, Technical Director
FROM: Austin R. Powers, Cognizant Engineer
SUBJECT: Nevada National Security Site (NNSS) Report for May 2018

DNFSB Staff Activity: D. Andersen, Y. Li, and A. Powers conducted an out-brief teleconference with the National Nuclear Security Administration's Nevada Field Office (NFO) and Mission Support and Test Services, LLC (MSTS), for the Device Assembly Facility (DAF) seismic hazard assessment and soil-structure analysis review on May 10th. During the out-brief, the Board's staff review team discussed the seismic hazard assessment that was performed to determine if the 2007 Probabilistic Seismic Hazard Analysis needed to be updated and the timing and status of the soil-structure interaction analysis. In addition, C. Berg attended the 76th Department of Energy Explosives Safety Committee meeting held at the NNSS support facility during the week of May 7th. The Board's staff did not conduct any other on-site activities at NNSS during May.

DAF Fire Suppression System (FSS) Improvement Project: MSTS has continued to make improvements to the FSS in DAF. MSTS declared the 24th of these buildings (out of 25) operable during May. MSTS has continued construction work for the 23rd of these buildings and anticipates to complete this work during June. Due to ongoing programmatic work, MSTS plans to begin construction work in late August for the last remaining building to have its lead-in line addressed.

DAF High Efficiency Particulate Air (HEPA) Filter Ventilation System (HFVS): As mentioned in the NNSS Monthly Report for April 2018, MSTS developed an engineering report that provided a technical justification to implement an alternative in-place aerosol testing methodology for the HEPA filters. MSTS will submit this report to NFO for review and approval as part of a change notice to the DAF documented safety analysis that is intended to resolve the potential inadequacy in the safety analysis related to the testing methodology that was declared in January 2017 (see NNSS Monthly Report for October 2017). The change notice is scheduled to be submitted to NFO during June.

Joint Actinide Shock Physics Experimental Research (JASPER) Facility Safety Basis: During May, NFO approved the 2017 Annual Update for the JASPER Facility safety basis. The 2017 Annual Update includes changes that will support the facility's expanding mission scope. In particular, the 2017 Annual Update authorizes new experiments with new target materials and new equipment such as larger diameter gas gun barrels. MSTS will begin the process of implementing the new safety basis by performing an independent verification review during June.