DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 1, 2016

TO: Steven A. Stokes, Technical Director
FROM: John E. Deplitch, Cognizant Engineer
Austin R. Powers, Transition Cognizant Engineer
SUBJECT: Nevada National Security Site (NNSS) Report for December 2015

DNFSB Staff Activity: J. Deplitch and A. Powers were on site December 14 – 17 for transition cognizant engineer familiarization.

E. Gibson, B. Caleca, J. Deplitch, and A. Powers participated in a teleconference on December 17 with representatives from National Security Technologies, LLC (NSTec) and the Nevada Field Office (NFO) regarding the seismic analysis of the Device Assembly Facility (DAF) at the NNSS.

Device Assembly Facility (DAF) Seismic Analysis: The results of DAF seismic analysis teleconference included NSTec plans to restart work for the Probabilistic Seismic Hazard Analysis update and accelerate the replacement of the DAF's emergency fire water supply tank. The Board's staff plans to follow up with NSTec during the month of April 2016.

DAF Coring Project: The Coring Project team completed corrective actions for findings from the Contractor Readiness Assessment. NFO personnel verified adequacy of the corrective actions. NFO plans to start the Federal Readiness Assessment on January 11, 2016.

National Criticality Experiments Research Center (NCERC): During the month of December, NCERC personnel have been executing the Godiva Start-Up Plan to evaluate the effectiveness of new contamination controls, specifically Top Hat and the Air Filtration System (AFS). The NCERC team has conducted burst experiments at various outputs and measured the contamination throughout the Godiva Building. The team performed the experiment with no controls, both controls, and each control individually. The preliminary data indicates the following:

- The Top Hat and AFS together reduce the contamination more effectively than the Top Hat and AFS alone.
- The AFS alone reduces the contamination significantly, while the Top Hat reduces contamination marginally.

Early in January, the NCERC team plans to brief the NFO Manager regarding which contamination controls it plans to implement for the NFO manager's approval of unrestricted Godiva operations.

Joint Actinide Shock Physics Experiment Research (JASPER): JASPER conducted Surrogate Shot 136 and Plutonium Shot 137 successfully, which returned 100% data. The experiments were executed in a safe manner with no safety issues to report.