

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 3, 2017

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending February 3, 2017

**DNFSB Staff Activity:** On Thursday, a staff team lead by R.C. Eul provided to LANL and NNSA Field Office personnel their closeout observations regarding their review of software quality assurance.

**Federal Oversight:** On Thursday, the NNSA Field Office Manager announced several staff rotations intended to improve organizational health. Additional forthcoming actions include commencing daily standup meetings for the operations group and developing a joint prioritization matrix for safety basis actions.

**Plutonium Facility–Safety Basis:** On Thursday, Plutonium Facility management declared a Potential Inadequacy of the Safety Analysis (PISA) for the use of cellulosic wipes (i.e., cheesecloth) in contact with heat source plutonium (HS-Pu). This determination closes out the New Information screening initiated last month (see 1/20/17 weekly). Management’s rationale for declaring the PISA stems from preliminary analysis that indicates a bounding threshold of around 200 °C for initiating combustion of cheesecloth that has come in contact with nitric acid. Additional conservative thermal modeling indicates that quantities of HS-Pu in excess of 10 g and in certain packaging configurations has the potential to challenge the 200 °C threshold. Their preliminary review of the waste inventory revealed five pipe overpack containers impacted by this information—one of these containers is located on the outdoor waste storage pad. Management’s initial compensatory actions include: (1) conducting the in-service inspection on the outdoor container to ensure no indications of a prior thermal event with emphasis on the state of the filter, (2) returning the outdoor container to the Plutonium Facility confinement structure, (3) issuing a prohibition on waste containers with greater than 10 g HS-Pu and cheesecloth, and (4) providing this information to management at Area G and the Waste Isolation Pilot Plant for their consideration.

**Weapons Engineering Tritium Facility (WETF)–Readiness:** On Monday, the NNSA Field Office Manager approved LANL management’s request to revise the level of readiness review required to load, package, and ship hydride transport vessels (HTV). Previously, the NNSA Field Office had approved a proposal to conduct a Federal Readiness Assessment (RA) to startup these operations. In the revised request, LANL proposed to forego the Federal RA and to initiate HTV operations under a revised and more rigorous startup plan that will extend management oversight. LANL’s request notes that WETF personnel successfully completed a Federal RA in October 2015 that evaluated gas transfer operations similar to those needed to load, package, and ship the HTVs. Of note, startup of HTV operations will enable WETF personnel to process and ship bulk tritium gas from the facility that represents a large fraction of the material-at-risk and has no programmatic use.

**Waste Characterization Reduction and Repackaging Facility–Readiness Activities:** Last Friday, the Associate Director for Nuclear and High Hazard Operations approved a request to proceed with the Contractor RA for processing of waste drums containing the inappropriately remediated nitrate salt waste currently stored in Area G. On Monday, the Contractor RA team held their in-brief and commenced their review which is scheduled to conclude next week.