

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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TO: Steven A. Stokes, Technical Director
FROM: Matthew P. Duncan, Cognizant Engineer
SUBJECT: Lawrence Livermore National Laboratory Report for January 2016

Plutonium Facility: LLNL completed its contractor readiness assessment for startup of the new Centralized Waste Processing Line in Building 332, the Plutonium Facility. For additional information regarding the Centralized Waste Processing Line, see last month's report. The review team determined that the fissile material handlers and support personnel are skilled and have significant experience in similar activities in other gloveboxes, noting that their experience and professionalism left no doubt they are ready for operations. The team did not find any equipment performance issues. There were three pre-start findings, including: (1) the maintenance procedures related to the stand-alone fire suppression system were not issued, (2) the glovebox hoist and trollies were not clearly labeled to show the allowable loading, and (3) the operational safety plan was not updated to address deficiencies identified during the management self-assessment and pre-trial operations. There were three post-start findings, including: (1) several training program requirements were not adequately implemented, (2) contrary to the work planning and control manual, there were no completed as built drawings and drawings requiring updating were not entered into the institutional issues tracking system, and (3) the operational safety plan did not address the tasks, hazards, and controls for relocating the hoist to another trolley within the gloveboxes. Additionally, the team identified four strengths and eleven observations.

Hardened Engineering Test Building: LFO approved the annual update to the Documented Safety Analysis and Technical Safety Requirements (DSA/TSRs) for Building 334, the Hardened Engineering Test Building. Based on unmitigated consequence calculations, this Hazard Category 2 nuclear facility continues to have no design features, structures, systems, or components designated as safety class or safety significant to protect workers or the public. Instead, it relies on seven Specific Administrative Controls and safety management programs. Since the 2007 DSA/TSRs, LLNL has designated several existing structures, systems, and components as "equipment important to safety," including the ventilation system, high-efficiency particulate air filters, the building structure, continuous air monitors, the fire detection and alarm system, and the fire suppression system. Previously, these same components were sometimes referred to in other portions of the DSA/TSRs as "defense in depth." This current annual update clarifies the terminology for these components as "defense in depth equipment important to safety." This is a LLNL-specific term used for structures, systems, and components that are designated important to safety but do not warrant designation as safety class or safety significant.