

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 21, 2012

**TO:** T. J. Dwyer, Technical Director  
**FROM:** D. Gutowski and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending November 23, 2012

D. Gutowski was out of the office this week.

**Plutonium Finishing Plant (PFP).** The Richland Operations Office approved the annual update to the PFP safety basis. The significant changes noted in the Safety Evaluation Report (SER) include: upgrading the fire alarm system in Building 291-Z as well as the backup steam turbine-powered ventilation exhaust fans to important to safety defense-in-depth systems; upgrading the control of ignition sources from an administrative control to a specific administrative control; removing all references to the 2736-Z Complex because it was demolished earlier this year; and including the material at risk (MAR) holdup in Building 291-Z (see 3/11/11 report) in the accident analyses. The contractor, in a conservative manner, did not modify the accident analyses to take credit for removing MAR even though a substantial amount of material was removed during D&D operations. The SER notes that the most effective way to address the residual risk associated with the high-risk accident scenarios is to expeditiously complete the D&D efforts of the PFP facilities.

The failure last week of the bridge crane in the Plutonium Reclamation Facility (PRF) is a recurring problem (see 11/16/12, 6/29/12, 12/2/11, 8/6/10, 6/19/09 reports). The crane hook will not move in the vertical direction, and initial troubleshooting from outside the canyon led personnel to determine that the failure is with either the drive belt or the electric brake. The contractor is developing plans for further troubleshooting activities and these will require entries into the maintenance cell. This aged crane is required to remove the pencil tanks and even relatively simple repairs require significant time in the elevated crane maintenance cell section of the heavily contaminated PRF canyon.

**Waste Treatment Plant.** The contractor requested that the Office of River Protection (ORP) approve a change to the safety basis which will allow the use of emergency turbine generators (ETGs) rather than emergency diesel generators (EDGs) as the emergency source of safety-class electrical power. The change will replace an existing Justification for Continued Design, Procurement and Installation (JCDPI) (see 5/27/11 report). ORP extended the JCDPI this summer because significant technical issues were still not resolved, but required the contractor to submit a formal safety basis change request within 90 days. It does not appear that the contractor has made much progress in resolving the technical issues since the JCDPI was extended. The changes to the safety basis will maintain the restrictions in the JCDPI, including prohibiting the installation of the ETGs, until the outstanding technical issues are resolved.

**Tank Farms.** The contractor prohibited all waste transfers because two Justifications for Continued Operation (JCOs) expired last Friday and they had not implemented the ORP-approved changes to the safety basis that resolve the issues (see 11/9/12 report).