

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 14, 2010

TO: Timothy Dwyer, Technical Director  
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives  
SUBJECT: Activity Report for Week Ending May 14, 2010

**Highly Enriched Uranium Materials Facility (HEUMF).** The secondary confinement system (SCS) is identified as safety-significant in the HEUMF Documented Safety Analysis (DSA) and is credited to function upon detection of a fire (the SCS is not credited to function after a seismic event). The HEUMF DSA states that SCS wiring is routed through SCS conduit and will not be mixed with wiring for other systems. This week, B&W reported a Potential Inadequacy in the Safety Analysis after a system engineer discovered that the electrical wiring for the SCS isolation system is routed through a junction box that also houses non-safety wiring. This configuration does not comply with the requirements of the design drawings. B&W entered the appropriate Limiting Condition of Operation and submitted a construction non-conformance report.

B&W completed an extent-of-condition review of SCS wiring and identified 12 additional locations with similar wiring configurations. B&W is not planning to perform additional extent-of-condition reviews of wiring for other safety systems. B&W completed an Unreviewed Safety Question Determination that concludes the non-safety wiring could not prevent the SCS from performing its safety function (i.e., the amperage and voltage carried by the non-safety wires are not sufficient to keep the fail-safe damper in the open position in the case of an electrical short). B&W is planning to revise the DSA to accurately describe the configuration of the SCS wiring and to provide a lesson-learned to the Uranium Processing Facility project.

**Conduct of Operations/Maintenance.** There have been a few recent events involving failure to properly use and follow procedural requirements by personnel in the Y-12 Facilities, Infrastructure and Services (FI&S) Division. One event involved failure to follow critical lift plan rigging requirements when removing components from the roof of Building 9212 (see the 4/16 and 4/23 site rep. reports). This week, YSO personnel inquired on an in-progress repair activity for an air conditioning unit in Building 9201-3 (not a nuclear facility). The YSO inquiry and B&W follow-up determined that the work package was not at the job site, that hot work (brazing to install a valve) was performed even though the work package specifically stated no hot work was allowed, and that a lockout/tagout for a 480-volt source was not in place. B&W plans further evaluation on the lockout/tagout aspect of this event; however, B&W determined that action on proper use of and adherence to work package/procedural requirements is needed. B&W is developing a Standing Order to implement more rigorous requirements for work package/procedure use in FI&S Division activities. Other actions are in development.

**Facility Deactivation/Safety Bases.** YSO has approved for B&W to cancel the DSAs for the 9201-5 Complex (see the 4/30/10 site rep. report) and Building 9720-38 (a Hazard Category-3 facility used to store nuclear material). B&W relocated the nuclear material stored in Building 9720-38 to other nuclear facilities including the Warehouse (see the 4/9/10 and 4/30/10 site rep. reports). Y-12 management is still determining the long-term mission, if any, for the Warehouse.

In February, YSO approved a new Safety Analysis Report (SAR) for Building 9206. Building 9206 is an old uranium processing facility that is undergoing deactivation. The SAR, once implemented, will replace the currently approved and implemented Basis for Interim Operation (BIO). Because the transition from the BIO to the SAR will require numerous procedure revisions, B&W isn't expecting to have the SAR fully implemented until September.