

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 30, 2009

TO: Timothy Dwyer, Technical Director
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending October 30, 2009

Highly Enriched Uranium Materials Facility (HEUMF). During a container acceptance demonstration for the B&W Operational Readiness Review (ORR) last week, operators discovered that the drum weighed about ten pounds more than expected. The operators contacted the shift manager and criticality safety personnel for guidance on how to proceed. The material handlers did not initiate a formal "back-off" (fifteen-foot control boundary) while awaiting criticality safety direction as the applicable procedure required controlling the drum but did not require a back-off. The site rep. observed that the shift manager incorrectly believed that the operators had initiated a back-off. The ORR team is questioning whether HEUMF procedures should be revised to require a formal back-off in these types of situations. The site rep. discussed his observations with B&W and ORR team management.

This week, the site rep. observed the ORR emergency management exercise. A few members of the NNSA ORR team also observed the exercise. The exercise scenario was a criticality event during a re-containerization activity with potentially irradiated personnel requiring medical attention. Exercise objectives appear to have been met. Separately, during a loss of normal power demonstration, one of two running safety-significant Secondary Confinement System exhaust fans unexpectedly stopped shortly after switching to diesel generator backup power.

American Recovery and Reinvestment Act (ARRA). Staff members Winters and Zull visited Oak Ridge to review safety management of defense nuclear activities being funded under ARRA. Some noteworthy items from the visit include:

- Transuranic Waste Processing Center (TWPC) — EnergX initiated two-shift operations last month (see the 7/24/09 site rep. report). Operational Readiness Reviews for startup of a new drum venting capability are now scheduled to begin in January (see the 3/6/09 site rep. report). Three weeks ago, while EnergX was performing post-maintenance testing of a programmable logic controller, power was unexpectedly lost to the safety-significant ventilation system in the main building. Last week, following discussion of this event with DOE-ORO, EnergX declared a Potential Inadequacy in the Safety Analysis. DOE-ORO has announced its intent to award the TWPC contract to Wastren Advantage (EnergX, the current contractor, would be a primary sub-contractor of Wastren Advantage).
- ORNL Tank W-1A — Bechtel Jacobs Company (BJC) is developing the technical basis for proposing to dispose 350 yd³ of highly contaminated soil around tank W-1A as low-level waste. BJC is to submit its DSA to DOE-ORO this Spring addressing soil removal, which is now planned for 2011 (see the 10/17/08 site rep. report). BJC intends to perform additional soil characterization along pipelines historically used to transfer wastes to tank W-1A.
- Y-12 Excess Facility Cleanup and Disposition — In response to a YSO Facility Representative identifying that a sub-contractor performing work in Building 9201-5 was not adhering to procedures, B&W took corrective action to enhance its day-to-day oversight of sub-contractor work (see the 7/2/09 site rep. report). However, B&W has not yet revised its safety strategy for conducting ARRA associated work to incorporate these additional B&W oversight expectations. In response to recent work planning issues in Buildings 9201-5 and 9204-4, B&W management suspended operations until each work package is reviewed.