

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 24, 2009

TO: Timothy Dwyer, Technical Director  
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives  
SUBJECT: Activity Report for Week Ending July 24, 2009

**Uranium Processing Facility (UPF).** YSO revised the Safety Evaluation Report for the UPF Preliminary Hazards Analysis and the UPF Safety Design Strategy. YSO agreed to downgrade the safety-class fire barriers to safety-significant based on the dose consequence in the latest fire analysis.

**Conduct of Operations/Warehouse Material Movement.** B&W management discussed with the site reps. the results of additional investigation of a Warehouse event where 24 drums were double-stacked in a storage cage on June 8<sup>th</sup>. This double stacking, discovered in late June, was in violation of applicable criticality safety requirements including the cage door criticality safety posting (see the 6/26/09 site rep. report). Two personnel were involved, a certified fissile material handler (FMH) and an operator-in-training. B&W management noted that the FMH stated he relied on a material movement plan that he recalled had allowed stacking (that plan has not been located). The main material movement procedure required that the applicable material movement plan be checked against the storage cage posting, but this was not accomplished. The FMH also did not ensure that the procedure was open and being followed step-by-step by the operator-in-training, as required by the site-wide Conduct of Operations Manual. Lastly, the FMH did not implement FMH training to check and follow postings when moving nuclear materials. Corrective actions to address these factors are to be determined. The site reps. suggested to B&W management that review of corrective actions for a recent violation involving too many birdcages on a Warehouse storage shelf (see the 5/1/09 site rep. report) may be warranted in developing corrective actions going forward.

**Transuranic Waste Processing Center (TWPC).** The site reps. observed training activities at an offsite facility recently established by EnergX to support going to two-shift operations using funding from the American Recovery and Reinvestment Act (see the 3/6/09 site rep. report). The training facility has mockups for the TWPC main processing glovebox and the box breakdown area. The training program for new personnel includes technical fundamentals, safety culture, mockup exercises and on-the-job training. Two-shift transuranic waste operations are to start in mid-September.

**Freeze Protection Program.** During the past two winters, credited fire suppression systems in nuclear facilities at Y-12 have been compromised during periods of extended freezing weather (see the 1/23/09 and referenced site rep. reports). Based in part on prior site rep. observations, B&W has revised its site-wide Freeze Protection Program procedure to require that facility management develop the following two documents: (1) facility-specific checklists that identify systems that are known to be susceptible to freeze issues during cold weather and (2) severe cold weather plans that identify actions to be taken when ambient air temperature falls below 25 degrees Fahrenheit. The revised procedure does not, however, clearly distinguish the freeze protection roles/responsibilities for nuclear facility operations managers (who are responsible for the nuclear safety systems) from those of “building managers” (who are typically responsible for balance-of-plant equipment/systems). The revised site-wide procedure is scheduled to become effective in early August.

**Infrared Debonding.** B&W completed its contractor Readiness Assessment (RA) of infrared (IR) debonding operations this week (see the 7/17/09 site rep. report). The RA review team recommended startup of IR debonding operations following closure of two pre-start findings. The scope of the proposed operations was reduced during the review based on findings identified by the RA team.