

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 20, 2009

TO: Timothy Dwyer, Technical Director  
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives  
SUBJECT: Activity Report for Week Ending November 20, 2009

**Conduct of Operations/Criticality Safety.** B&W management discussed with the staff and site reps. the results of their investigation of the August event where operators violated criticality safety requirements when placing used bag filters into drums (see the 8/28, 9/4 and 9/11/09 site rep. reports). Specifically, two bag filters (4 half-filters) were placed in a drum in violation of the procedural criticality safety limit of one bag filter. The supervisor and two operators that were placing the half-filters into drums were not using the procedure for this (infrequently performed) task and the procedure was not in the area. B&W management determined that the supervisor assumed the filters were cut into quarters (contrary to the procedure) and directed that 4 half-filters be combined into one drum.

The chief causal factors noted by B&W include: (1) the supervisor missed the portion of the pre-job briefing that covered loading the half-filters into drums; (2) the procedure had not yet undergone a revision to incorporate a procedure use category (see the 4/10/09 site rep. report; the procedure has since been categorized as “continuous use,” to be referenced step-by-step); (3) the operators did not effectively challenge the supervisor’s direction or properly exercise their stop-work authority; (4) the three individuals conduct most of their operations to general material handling requirements and postings, but not task-specific procedures; and (5) the three individuals had not performed this infrequent evolution in the past. B&W management discussed corrective actions and stated that their review of this event and other recent criticality safety deficiencies does not indicate a systemic problem with adherence to criticality safety requirements.

**Highly Enriched Uranium Materials Facility (HEUMF).** Members of the NNSA Operational Readiness Review (ORR) team and staff member Pasko received facility training and were briefed on HEUMF readiness efforts. The NNSA ORR is to begin December 7<sup>th</sup>. The YSO line management review team is questioning whether some of the weaknesses and observations identified by the B&W ORR should be re-categorized as findings. B&W continues to evaluate the unexpected shutdown of one of two running safety-significant confinement system exhaust fans during a loss of normal power demonstration (see the 10/30/09 site rep. report).

**Building 9201-5 Documented Safety Analyses (DSAs).** Last week, YSO completed its review of B&W’s request to obtain a permanent exemption for the 9201-5 Complex from a requirement in 10 CFR 830, *Nuclear Safety Management* (see the 9/18/09 site rep. report). Specifically, B&W requested an exemption to 10 CFR 830.202(b)(3), which requires contractors to assign hazard categorizations (e.g., Hazard Category-3) to nuclear facilities. YSO issued a Safety Evaluation Report that states the nuclear material inventory limits in the 9201-5 Complex represent an insignificant radiological hazard in addition to precluding the potential for a nuclear criticality accident. In accordance with the DOE directive governing such exemptions (DOE Standard 1083), YSO concurred on and forwarded the B&W exemption request to NNSA Headquarters. If the exemption is approved by the NNSA Deputy Administrator, B&W would cancel the DSAs for the 9201-5 Complex. B&W would operate the 9201-5 Complex as a chemically hazardous facility, which requires the fire suppression systems to be maintained in accordance with National Fire Protection Association codes and standards.