

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 9, 2010

TO: Timothy Dwyer, Technical Director  
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives  
SUBJECT: Activity Report for Week Ending April 9, 2010

**Fire Protection.** Staff members C. March, J. Abrefah, and R. T. Davis were in Oak Ridge to discuss management of the fire protection programs at both Y-12 and ORNL. The staff participated in walkdowns of Building 9212 at Y-12, Building 3019 at ORNL, and the Transuranic Waste Processing Center. In Building 9212, the staff inquired on the following: (a) use of heavily corroded electrical boxes in the basement of E-wing, (b) code compliance of the gap between certain sprinkler heads and the ceiling in C-1 wing, and (c) a section of suppression piping in C-1 wing that may be more hydraulically limiting than the piping in C-wing that was used to perform hydraulic calculations (see the 12/24/09 site rep. report).

**Highly Enriched Uranium Materials Facility (HEUMF).** B&W has completed the first phase (removing material from the Warehouse) of the HEUMF load-out effort (see the 3/19/10 site rep. report). Completion of this phase is a major milestone in improving the nuclear safety posture of Y-12. B&W is planning to down-post the Material Access Area in the Warehouse during the next several weeks. The second phase of HEUMF load-out consists of removing material from other Y-12 nuclear facilities during the next 15 months.

Rackable Can Storage Boxes (RCSBs) that have been transferred from the Warehouse to HEUMF are loaded with cans that are made of either carbon steel or stainless steel. While not credited as a Technical Safety Requirements control, the HEUMF safety basis states that use of the carbon steel cans in RCSBs will be limited to 10 years. Carbon steel cans are also stored in 55-gallon drums in HEUMF, but since they are packaged in separate drum-type containers (within the 55-gallon drums) they are not subject to the 10-year storage limit. This week, the site reps. reviewed B&W's implementation of the 10-year storage limit including marking of RCSBs for 'interim storage' and using a database to track storage time. Approximately 800 carbon steel cans are subject to the 10-year storage limit. B&W plans to re-containerize the material in carbon steel cans during a four-year period starting in fiscal year 2012. This schedule ensures that no carbon steel can would exceed its 10-year storage limit.

**Nuclear Criticality Safety (NCS).** Y-12 management held their quarterly senior management meeting on the Y-12 NCS program this week. B&W is currently developing an NCS Program Improvement Plan, which it intends to issue later this month. In its improvement plan, B&W management intends to include improvement actions in the following areas: Technical Deviation or Clarifications (see the 1/29/10 site rep. report), fissile material container limits and labeling, NCS postings (see the 1/15/10 site rep. report), criticality safety evaluation upgrades (see the 12/11/09 site rep. report), and NCS metrics.

**Y-12 Governance Reform and Oversight.** Each year, NNSA identifies 'multi-site targets' to be included in the performance based incentives (PBIs) for NNSA sites. In this year's PBIs, NNSA tasked Pantex, Y-12, Los Alamos, and Lawrence Livermore to evaluate the possibility of implementing the Kansas City Plant governance model (i.e., utilizing commercial standards rather than DOE directives for non-nuclear work). B&W recently completed this task and determined that adopting this model for non-nuclear operations at Y-12 is feasible. YSO and B&W have formed a Governance Reform Joint Steering Committee that is developing a Project Execution Plan. YSO and B&W are planning to approve the plan by the end of this fiscal year.