

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy Dwyer, Technical Director  
FROM: Wayne Andrews and David Kupferer, Site Representatives  
SUBJECT: Oak Ridge Activity Report for Week Ending June 24, 2011

**Y-12 Emergency Management/Feedback and Improvement.** This week, the site representatives observed a full-scale emergency management exercise that simulated a fire in O-Wing of Building 9215 (see the 8/21/09 and 6/18/10 reports). In the scenario, B&W simulated that the fire suppression system did not function because it was out-of-service due to maintenance (i.e., sprinkler heads were being replaced). The site representatives shared the following observations with Y-12 management:

- inconsistent with Y-12 General Employee Training, the individual who discovered the fire called the Shift Manager instead of calling 911 (this is a repeat observation from a full-scale exercise in 2009, see the 8/21/09 report),
- more than 35 minutes elapsed between the fire department being notified of the fire and the fire department's entry into O-Wing (this is similar to 2009 during which more than 25 minutes elapsed prior to the fire department entering the involved facility),
- some Subject Matter Experts did not respond in a timely manner to the Incident Commander at Building 9215 (arriving more than 40 minutes after being notified), and
- the Technical Support Center was not declared operational until more than an hour after the initiation of the scenario.

**Safety Analyses/Safety Systems.** Last week, NNSA responded to a 4/20/11 Board letter that requested a report that describes (a) the technical basis for determining that toxicological hazards need not be considered in the development of safety basis documents and (b) the benefits expected to be gained by potentially classifying the Secondary Confinement System (SCS) for Highly Enriched Uranium Materials Facility as defense-in-depth (see the 5/20/11 report). NNSA's response states that (a) toxic materials with a Health Hazard Rating of 3 or 4 per National Fire Protection Association Standards are required to be evaluated as part of the development of safety basis documents and (b) NNSA will keep the Board informed as it reevaluates the safety designation of the SCS, which is expected to be completed by October 2011. Earlier this month, NNSA issued a Technical Bulletin that includes a more detailed discussion regarding the requirements associated with including analysis of toxic materials in safety basis documents. B&W is revising the Safety Design Strategy for the Uranium Processing Facility to be consistent with NNSA's Technical Bulletin and NNSA's response to the Board's letter (see the 6/17/11 report).

**Radiological Control.** During the past two months, YSO communicated some concerns to B&W regarding radiological control practices. In particular, YSO highlighted the following:

- During the past few months, there have been five instances in which radiological work permits (RWPs) were not used appropriately. YSO cited examples of where RWPs weren't used at all (see the 3/18/11 report), the wrong version of an RWP was used (i.e., the RWP used was expired or cancelled), and specific RWP requirements weren't followed (e.g., the personal protective equipment required by the RWP wasn't used).
- During the past year, there have been 19 instances of workers on radiological restriction signing in on RWPs and entering radiation areas.

B&W is executing corrective actions to address YSO's concerns that include developing and implementing an improved radiological control lessons learned process.