

## **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 January 14, 2011

**Nuclear Criticality Safety (NCS)/Conduct of Operations.** On Tuesday, Y-12 held their quarterly senior management meeting on the NCS program. During the past six months, B&W has completed half of the actions it identified in its NCS improvement plan (see the 10/15/10 report). B&W's Criticality Safety Committee highlighted that the large variety of containers used to store enriched uranium at Y-12 has led to a complex set of NCS requirements and operator performance issues. B&W's container simplification initiative has recently been focused on the containers that will be used in the Uranium Processing Facility. The committee recommended that, using a graded approach, B&W should develop a phased implementation strategy for container simplification that focuses on the operating facilities.

Production management discussed an event that occurred in October during which operators knowingly and repeatedly skipped a step in their 'continuous use' procedure to perform nondestructive assay of machining chips (see the 10/15/10 report). Performing the assay is an NCS requirement; therefore, B&W identified this event as an NCS deficiency. Last month, B&W completed its independent investigation of this event. B&W's investigation appears to have been very thorough. The investigation report identified significant weakness in operator training, certification, supervision, and adherence to conduct of operations principles.

The investigation report concludes that based on this event and previous events, operators involved in assembly/disassembly operations have a history of not adhering to conduct of operations principles (see the 6/25/10, 7/2/10, and 10/8/10 reports). B&W is developing corrective actions in response to the issues identified by the investigation team.

**Transuranic Waste Processing Center (TWPC) – Small Fire.** Last Friday, during the second shift of hot cell operations at TWPC, operators observed a small fire while performing hot work operations. This hot work consisted of cutting and grinding steel waste containers. Operators observed smoke being generated from beneath a fire blanket that was covering two High Efficiency Particulate Air (HEPA) filters. These HEPA filters were removed from service (they had been in-service since hot cell operations were initiated in May 2008) during TWPC's recent hot cell maintenance outage. Operators used remote manipulators to raise the fire blanket and observed a candle-like flame. Operators activated a nearby fire alarm pull station and notified the duty officer. All personnel evacuated the main process building. After the fire department responded and assessed the situation, the incident commander directed TWPC operators to raise the fire blanket and pour an extinguishing agent onto the HEPA filters. Wastren Advantage suspended all hot work at TWPC and promptly critiqued the event. Wastren Advantage is conducting an investigation of the event to identify causes and corrective actions.