DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy Dwyer, Technical Director
FROM: Rory Rauch, Site Representative
SUBJECT: Oak Ridge Activity Report for Week Ending August 24, 2012

D. Kupferer was at Y-12 this week to augment site rep coverage.

Work Planning and Control: B&W has been addressing weaknesses in work planning and control through the execution of its *Work Planning and Control Performance Improvement Plan* (see 11/18/11 and 6/22/12 reports). However, two events this week indicate that weaknesses in work planning and control continue to persist. The first event occurred during a lockout/tagout (LO/TO) activity in Building 9212. Towards the end of the activity, a chemical operator was sprayed in the face and chest with uranyl nitrate solution after opening a valve to allow the solution to be drained through a nearby flange. The operator was not wearing full face protection. He immediately rinsed the affected areas with water at a nearby eyewash station. Subsequently, a radiological control technician (RCT) surveyed and decontaminated the operator prior to releasing him to the medical facility (the survey results were below reportable thresholds). This LO/TO activity involved both chemical operators and maintenance personnel working under different job hazards analyses (JHAs). The scope of the JHA for the chemical operator did not apply to the maintenance job being performed; rather, the JHA covered normal operation of the system and did not require face protection. By contrast, the JHA for the maintenance personnel was scoped properly and required the individual who broke the flange from which the uranyl nitrate sprayed to wear a face shield, at a minimum.

The second event occurred during sampling activities in the drum storage area of a radiological facility. The radiological engineer supporting the activity intended for the entire area to be posted as an airborne radioactivity area requiring respirator protection. However, due to a miscommunication, the lead RCT only posted a portion of the area as an airborne radioactivity area requiring respirator protection. At this time, B&W estimates that the personnel in the area who were not wearing respirators received a dose of approximately 5 mrem. While researching this event, Nuclear Safety Operations personnel identified an additional concern that some of the radiological work permits governing the activities in the drum storage area of this facility were broadly scoped (some originated in 2010) and contained several extraneous work descriptions that were not germane to the current work being performed in this area.

Transuranic Waste Processing Center (TWPC): This week, Wastren Advantage, Inc. (WAI) declared a technical safety requirement (TSR) violation when operators failed to apply a drum restraint prior to transferring an unvented waste drum from a waste storage box in the box breakdown area of TWPC's main process building. The drum restraint is required in the TWPC documented safety analysis to prevent a worker safety consequence resulting from the ejection of the drum lid due to the over-pressurization of an unvented waste drum. A WAI supervisor identified some documentation discrepancies involving the application of the drum lid restraint during closeout activities for this operation. This line of questioning eventually led to the discovery that a TSR violation had occurred. The procedure governing box breakdown area operations contains a specific step directing the installation of the drum restraint, but the restraint is only required if the operators are unable to confirm that the drum has been vented. WAI is still in the process of evaluating the event and developing corrective actions, but it appears that, at a minimum, operators will need additional clarification regarding what constitutes acceptable visual evidence that a drum has been vented.