

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy Dwyer, Technical Director  
FROM: Rory Rauch, Site Representative  
SUBJECT: Oak Ridge Activity Report for Week Ending October 19, 2012

D. Campbell, E. Elliott, R. Eul, D. Kupferer, and C. Martin were at Y-12 to review the progress B&W has made in upgrading criticality safety evaluations and the implementation of controls developed in the criticality safety evaluations for the oxide dissolver and primary extraction systems in Building 9212.

**Job Hazard Analyses (JHAs):** In the last several months, B&W has identified several JHA-related issues. These include issues where the JHA did not address the full scope of work for the activity being performed (see 8/24/12 and 10/12/12 reports), the JHA referenced permits with conflicting control requirements (see 8/31/12 report), and the JHA addressed hazards that were not applicable to the work being performed. This week, B&W discovered two additional JHA-related issues in non-nuclear areas. In one case, management discovered that machining operations in Building 9201-1 had been performed for approximately two months without approved JHAs; in the other, a worker fell and injured his ribs while performing a task that was not covered by a JHA. In response to these events, the Vice President for Production issued a standing order suspending all production activities until each production manager completes a review of the JHAs for the work activities under their responsibility. Production management issued a form detailing the specific questions to be answered during this review (e.g., Is the JHA approved? Does the JHA cover the task being performed?).

**Criticality Safety:** This week, B&W identified two implementation issues associated with criticality safety requirements (CSRs). The first issue involved a CSR to isolate an out-of-service large geometry storage tank tied to the raffinate stream from the primary extraction system in Building 9212. A criticality safety officer questioned the method used to implement the CSR because the valves isolating the tank had been closed, but not *locked* closed. B&W has installed locks on these valves. B&W is evaluating the issue to determine whether those developing or implementing CSRs such as this should be more specific regarding system alignments.

In the second issue, a criticality safety officer discovered that a CSR had not been flowed into one of the three job performance aids used for re-containerization operations in the head house of Building 9212 (the materials processed during these operations are primarily low equity uranium-bearing solids). The subject CSR allows a maximum of two cans to be opened at a time in the re-containerization hoods. The hood in question is not currently operating and B&W will update the job performance aids before operations resume. B&W is evaluating the cause of this issue.

**Uranium Processing Facility (UPF):** In a September 6, 2012, letter, the Board identified a number of specific modeling assumptions in the structural analyses for UPF that required technical validation. This week, the UPF project team issued a plan describing the technical approach to validate the assumptions in UPF structural analyses. The UPF project team plans to generate a schedule for preparing the structural design and analyses calculations by the end of this month.