

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 30, 2007

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending March 30, 2007

A. Handling of Legacy Items. As reported on January 5th, BWXT had determined corrective actions to address Judgements of Need identified from investigation of a small fire in the Warehouse in September. This fire occurred during an operation to open and inspect a container with uranium metal items that had not been opened in more than 30 years. The site reps. inquired on the response to date on the Judgements of Need regarding handling of such legacy containers. BWXT management noted that action to revise the Job Hazard Analysis process to address opening of legacy containers has been completed and a "lessons learned" document is about to be distributed. Clear definition and understanding of what would constitute a "legacy" container was not evident, nor whether various ventilated hood and non-inert glovebox operations were adequately controlled regarding this hazard. The site reps. questioned whether the actions to date provide adequate operational restriction/control on opening of such legacy containers in air environments for all Y-12 nuclear facilities. In response, YSO and BWXT management indicated that additional control is warranted. BWXT intends to develop a Standing Order by next week, as an interim measure, to clearly convey hazard analysis requirements prior to any opening of such legacy containers in an air environment.

B. Conduct of Operations. Referencing several events over the past year, YSO management noted in a letter to BWXT their heightened concern regarding the lack of proper Conduct of Operations evident in the events as well as concerns with follow-up feedback and improvement efforts. YSO management requested an interchange with BWXT management to discuss the cause(s) of the deficient Conduct of Operations.

C. Criticality Safety/Conduct of Operations. The staff and site rep. discussed with Y-12 personnel certain recent events involving criticality safety deficiencies. In particular, BWXT reviewed the events involving inspection and packaging of several legacy items in the Warehouse that did not meet criticality safety requirements (see the 11/24/06 site rep. report) and the storage of two containers at a location not authorized for that container design (see the 2/23/07 site rep. report). Observations noted by the site rep. and staff include lack of a check or "hold point" to assess criticality safety compliance upon opening legacy containers and an apparent lack of site-wide action to reinforce proper fissile material handler check of compliance when storing fissile material containers at a new location.

D. Uranium Processing Facility. Last week, YSO formally directed BWXT to incorporate DOE Order 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, and draft DOE Standard 1189, *Integration of Safety into the Design Process*, as part of the base requirements for the Uranium Processing Facility Project. YSO requested BWXT to assess the impact of these changes and provide feedback by April 13, 2007. In addition, YSO requested that BWXT provide additional civil/structural load details for the facility including a sketch that identifies lateral and vertical load paths along with process and safety system layout by April 20, 2007. These actions should help address concerns identified by the Board and the Technical Independent Project Review Team (see the 3/2/07 and 3/9/07 site rep. reports).