

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 13, 2006

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending October 13, 2006

A. Warehouse Small Fire - Update. As reported last week, a small fire had occurred in the Warehouse during an inspection of uranium metal items in a legacy container. An investigation by an independent team was in progress. This week, the site rep. and staff discussed known aspects of the event with Warehouse and investigation team personnel. The investigation team is evaluating information on the specific cause and continuing its review of broader work planning and control aspects of the event. BWXT still expects completion by late October.

B. Conduct of Operations/Criticality Safety. As also reported last week regarding the Warehouse fire, several legacy containers in the Warehouse had been opened and items inspected prior to the fire. During the last two weeks, BWXT has determined that most of the items in these containers were either repackaged into the same container or repackaged into different containers in a manner that did not meet applicable criticality safety mass limits or container requirements for the particular items. Site rep. review of the applicable procedure indicated that a step was included to ensure proper packaging to meet criticality safety requirements. While BWXT considers double contingency was maintained in all cases, BWXT management determined that these issues warranted external reporting and that additional investigation is required.

C. Oxide Conversion Facility. BWXT continues to investigate the release of a small amount of gaseous hydrogen fluoride (HF) that occurred last week, in particular, the lack of a procedural requirement to purge the HF vaporizer prior to opening a vent valve. Discussions between YSO and BWXT personnel on whether opening this valve without purging the system violated an Operational Safety Requirement (OSR) continued until Thursday when BWXT declared an OSR violation.

Currently, the Oxide Conversion Facility (OCF) is shutdown with residual HF contained within the primary confinement system. Several OCF safety basis surveillances have now expired. In order to perform these surveillances, BWXT must operate the dock scrubber to support purging HF from the system. However, these expired surveillances must be performed prior to operating the dock scrubber. BWXT is currently developing a Justification for Continued Operations that will provide their basis for performing the purge (including dock scrubber operation) prior to completion of the surveillances.

D. Uranium-233 Disposition at ORNL. Isotek continues efforts to complete the redesign of equipment and modifications to Building 3019 to support the project to down-blend the inventory of U-233. This redesign follows DOE direction to eliminate the thorium extraction portion of the project (see the 3/3/06 site rep. report). A revised Preliminary Documented Safety Analysis has been prepared and other reviews completed to support Critical Decision-2 (approve performance baseline) and to support a decision to start long-lead equipment procurement. DOE-ORO management noted that these decisions are expected by November.