

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 29, 2004

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJ:** Activity Report for Week Ending October 29, 2004

Staff member Andrews was at Y-12 to review various nuclear operations and issues.

A. Conduct of Operations - Procedure Use and Adherence. There have been a number of instances during the past few months where operations personnel were not deliberately using and following the applicable procedure resulting in a procedural violation. Examples include personnel not ensuring that data for moderator content was available as required for a material move in the Warehouse (see the July 23<sup>rd</sup> report); violation of a criticality mass limit in loading a can in the enriched uranium operations building in July; violation of material control requirements in the Quality Evaluation building discovered in September; and handling multiple containers in lieu of one container in an area of the Warehouse (see the October 8<sup>th</sup> report). BWXT investigation of these events has generally found that operations personnel had developed a practice different from the procedure without identifying the issue to supervision/management.

As reported on July 23<sup>rd</sup>, in discussing the July Warehouse event, YSO management had noted the need for site-wide action to address failures to deliberately use and follow the procedure and stop when completion of a step is in question. In response to the event in Quality Evaluation, YSO requested that BWXT identify comprehensive actions. BWXT is still completing investigation of that event; however, YSO and BWXT management met this week to discuss Conduct of Operations deficiencies and actions going forward. Chiefly, Manufacturing Division management noted the intention to require "in-hand" or "reader/worker" use of procedures in conducting nuclear operations. Other assessments focusing on procedural use and adherence are also planned.

B. Near Miss - Electrical. A Radiological Control Technician (RCT) performing a survey of an overhead crane in the Special Materials Processing building contacted an energized 480 volt bus for the crane with the metal survey probe in her hand. Fortunately, the RCT was not injured. Initial BWXT critique of the event revealed several issues with overall safety management such as lack of defining the work on the facility Plan-of-the-Day, lack of appropriate walkdown, and lack of formal work start approval. As a result, YSO and BWXT management have decided that BWXT will conduct an investigation at a level of detail and rigor approaching a Type B accident investigation.

C. Standardization of Fissile Material Container Designs. The Board's letter of November 13, 2002, noted the need to simplify and standardize storage conditions including containers for fissile materials. In September, BWXT completed the Project Execution Plan (PEP) for the Assessment and Consolidation of Enriched Uranium Containers Project. BWXT will use this PEP to integrate proposed container standardization initiatives with plans for material storage and disposition. The PEP includes an assessment of the current and projected enriched uranium inventory (e.g., type, form and storage configuration) to determine the appropriate path forward (e.g., processing, repackaging, offsite shipment, storage location). In addition, the project will implement a container policy to standardize and reduce the different types of containers used for material storage. A smaller set of containers will simplify storage requirements for operators.