

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 12, 2007

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** R. Todd Davis/Donald Owen, Oak Ridge Site Representatives  
**SUBJECT:** Activity Report for Week Ending January 12, 2007

A. Highly Enriched Uranium Materials Facility. The site reps. walked down the Highly Enriched Uranium Materials Facility construction site and discussed progress with YSO and BWXT personnel. Construction is approximately 40% complete with about 70% of storage area concrete wall placements complete. Installation of various equipment (e.g., ventilation, fire sprinkler and electrical systems) is on-going in the Mechanical Electrical Building.

Late last week, the construction contractor identified a non-conformance based on three wall placements that were inconsistent with the design drawing relative to the orientation of reinforcing steel (trimbar) around wall openings. The non-conformance was identified after the placements had been completed. Both the construction contractor quality control inspections and the BWXT compensatory measure inspections failed to identify the discrepancy prior to the placements. BWXT evaluation determined that BWXT and the construction contractor had agreed on a design change for this particular feature in October that is consistent with the current installation; however, a red-line drawing change was not completed that captured this change. BWXT and the construction contractor are developing corrective actions to address the configuration management and quality assurance deficiencies evident in this event.

B. Uranium Processing Facility. The staff and site rep. discussed the Uranium Processing Facility (UPF) project status with UPF project personnel. The project continues to pursue obtaining approval of Critical Decision-1 (alternative selection and cost range) from NNSA-Headquarters, now projected in February. An Independent Project Review sponsored by NNSA-Headquarters and focused on safety and security is planned for the week of January 29<sup>th</sup>. UPF project personnel are considering observations on safety analysis and conceptual design previously noted by the staff and are planning discussions to address the observations. A YSO Safety Evaluation Report on the Preliminary Hazard Analysis and Safety Design Strategy documents is expected to be issued within the next several weeks.

C. Conduct of Operations. This week, a safety basis violation was identified in the Enriched Uranium Operations Building as a result of starting up the primary intermediate evaporator without requesting the shift manager to change the operating mode from standby to operational. The site rep. noted that it was not clear from either the critique or the initial occurrence report whether a procedure violation had occurred or whether the procedure was deficient. The site rep. inquired with BWXT management on this matter and reviewed the applicable procedure with BWXT management. In review of the procedure, BWXT management noted that the evaporator had been shutdown after an early morning run (and the operating mode changed to standby). A few hours later, the operators entered the procedure at the section on equipment startup/operation in lieu of the prior section on prerequisite actions and missed the step on changing the mode to operational (as well as other steps). As a result, BWXT management considers this safety basis violation to be due to a procedural violation.