

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 8, 2008

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending February 8, 2008

Mr. Davis was out of the office on Tuesday, Thursday and Friday.

A. Highly Enriched Uranium Materials Facility. B&W is modifying the design of the ducting for the heating, ventilation and air conditioning (HVAC) system in the main storage area. The modification will remove most of the HVAC ducting in the storage area and change the supply and return outlets. B&W and YSO personnel noted in discussion with the site rep. that the change has no impact to the (separate) active confinement ventilation system, though an evaluation to determine any impact on the fire suppression sprinkler systems is in progress.

B. Oxide Conversion Facility Restart. On Thursday, YSO and B&W began their Operational Readiness Reviews (ORRs) for restart of the Oxide Conversion Facility (see the 1/25/08 site rep. report). The joint YSO/B&W ORR Plan-of-Action and the YSO ORR Implementation Plan states that the bulk of the YSO ORR activity will be on evaluation of the B&W ORR and that expansion of YSO ORR scope is at the discretion of the ORR team if a need becomes evident.

C. ORNL Building 3019/Uranium-233 Disposition. DOE-ORO has released their prior hold placed on Isotek long-lead procurements that had resulted from Quality Assurance deficiencies (see the 12/14/07 site rep. report). DOE-ORO noted that this release is limited to obtaining design and engineering services for long-lead equipment for Building 3019 modifications. Further DOE-ORO approval via a Safety Evaluation Report is required for fabrication of long-lead equipment.

D. ORNL Building 3019/Conduct of Operations. Isotek externally reported an event (significance category 2 management concern) where maintenance workers drilled holes in a floor last week contrary to work package instructions. The unauthorized drilling could have resulted in unprotected exposure to radiological and asbestos hazards. As a result of the event, Isotek held a safety stand-down of all non-essential activities last week and this week. Isotek is performing causal analysis and developing lessons-learned. Isotek has also put in place a Senior Supervisory Watch for Building 3019 work activities.

E. Water Leakage Into Process Equipment. In late January, a leak associated with chilled water piping in a ventilation system resulted in at least 200 gallons of water leaking into a room supporting Special Processing operations in the Enriched Uranium Operations Building. The water leaked through the overhead at a piping penetration and into and around a ventilated hood enclosure as well as onto a sintering furnace in the area. No enriched uranium was in the hood or furnace during the leak. A few gallons of water entered the hood enclosure but no water reached the level of the hood floor drain. While electrical components were likely damaged on the furnace, no water entered the furnace cavity. The leak occurred during the back shift, which delayed discovery of the leak and exacerbated the amount of water released. Operators took action to contact facility management and nuclear criticality safety personnel in stopping and responding to the leak. The site reps. note that B&W did not formally critique or externally report this event. B&W management is still determining the specific failure that caused the leak and will determine any modifications needed to prevent recurrence.