

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 14, 2007

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending December 14, 2007

A. Safety Basis Analyses. This week, the staff and site reps. participated in a video conference with YSO, B&W and outside expert personnel to discuss safety bases assumptions used in calculating potential dose consequences for Y-12 fire scenarios. The Board had questioned the use of a potentially non-conservative Airborne Release Fraction (ARF) for uranium metal in a letter dated February 28, 2006. Earlier this year, a B&W outside expert completed a report supporting the Y-12 ARF value. The staff questioned whether the conditions assumed by the outside expert was representative of all potential Y-12 fire scenarios. Resolution of the ARF issue may impact the B&W proposal to downgrade the safety classification of fire suppression systems in the Enriched Uranium Operations Building (see the 11/2/07 site rep. report) as well as safety system classification in the Uranium Processing Facility.

B. Uranium-233 Disposition. The DOE Headquarters Office of Environmental Management (EM) approved Critical Decision 2/3A (performance baseline and long-lead equipment procurement) for the Uranium-233 down-blending project in May (see the 6/8/07 site rep. report). The staff and site reps. were informed this week that DOE-ORO recently suspended Isotek's preparations for all procurements until corrective actions addressing Quality Assurance (QA) deficiencies are identified and completed. The QA deficiencies were identified by a DOE-EM review of Isotek's QA program, including QA applied to design and procurement efforts by team partners of Isotek. The DOE-EM review team noted deficiencies with flow-down of requirements from the governing QA standard (ASME NQA-1), design interfaces, design verification, and configuration management.

C. Feedback and Improvement. In late-November, B&W issued a revision to the Y-12 procedure governing critiques and follow-up investigation for events impacting safety, health, security, etc. Previously, the Y-12 procedure required a formal critique for externally reportable events and for other events (non-reportable) that "...if uncorrected, could impact safety...." In the latest revision, B&W has deleted the requirement to conduct a critique for non-reportable events. Instead, the procedure calls for investigation as determined necessary by line management. Any decision to hold a formal critique would be determined based on information gathered and whether a critique would "add value." The site reps. consider that deleting this requirement could result in missing important management notifications and missing important causal factors and other insights that are often identified during conduct of a formal critique. The site reps. discussed this observation with YSO and B&W management.

D. Conduct of Operations. During review of a Lock-Out/Tag-Out (LO/TO) implementation this week, a shift manager at the Enriched Uranium Operations Building noted a discrepancy between the LO/TO documentation and the field condition. The LO/TO was being installed to support a surveillance on the Accountable Steam Condensate System. Subsequent investigation revealed that a valve was incorrectly identified on the LO/TO documentation. Operators installed the LO/TO without the written documentation using knowledge from previous performance (in violation of the LO/TO procedure) and on a different valve than specified. B&W management plans to conduct additional training on the conduct of operations aspects of this issue.