

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 26, 2010

TO: Timothy Dwyer, Technical Director
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending March 26, 2010

Highly Enriched Uranium Materials Facility (HEUMF). Y-12 held a dedication ceremony marking completion of HEUMF. Board members Joseph Bader and Larry Brown and the site reps. attended the ceremony. Among several speakers, the Secretary of Energy and the NNSA Administrator provided remarks during the event emphasizing the need for completing design and construction of the Uranium Processing Facility.

Conduct of Operations. In November 2008, B&W senior management directed production personnel to perform a year-long review of their procedures with the purpose of improving procedure compliance and operational performance (see the 12/19/08 site rep. report). In April 2009, B&W senior management directed production personnel to designate technical procedures with a use category (information only, reference use, or continuous use) as part of the overall procedure review initiative (see the 4/10/09 site rep. report).

Recently, the site reps. requested information regarding the results of B&W's year-long procedure review effort including information on procedure use category designation. Based on information provided by B&W, it appears that the reviews conducted by personnel in Building 9212 were thorough and included involvement by appropriate subject matter experts. However, B&W discovered that it cannot locate sufficient evidence of the procedure reviews conducted by personnel in Building 9204-2E. Therefore, B&W management has issued a standing order that directs Building 9204-2E personnel to take the following actions: (a) re-perform the review of its procedures, (b) place all procedures that are infrequently used "on-hold," and (c) implement additional management oversight of production activities.

In addition, contrary to B&W management's expectations, numerous operating procedures have not yet been marked with a procedure use category. B&W plans to issue a standing order that will require all production procedures to be marked by March 30th.

Transuranic Waste Processing Center (TWPC). Wastren Advantage submitted its annual update of the TWPC Documented Safety Analysis to DOE-ORO this week. The update includes coverage and proposed controls for the planned drum venting campaign. As previously reported, DOE-ORO and the prior TWPC contractor had questioned whether the drum venting enclosure installed by DOE's Central Characterization Project would adequately confine a drum deflagration event (see the 1/15/10 and referenced site rep. reports). Wastren Advantage has concluded that such confinement cannot be assured and has proposed a Specific Administrative Control for worker protection that calls for the drum venting to be remotely performed (i.e., personnel will be required to be outside the drum venting building during drum puncturing). Other changes include describing the functions of the ventilation system programmable logic controller (see the 11/25/09 site rep. report). DOE-ORO is reviewing this submittal.

ORNL Building 3019/Uranium-233 Disposition. In developing the Preliminary Documented Safety Analysis for the Uranium-233 Downblending and Disposition Project, one of the accident scenarios currently being analyzed by Isotek is a large spill of downblended uranyl nitrate from two dryer feed tanks in the Building 3019 Annex during a seismic event. Isotek is in the process of finalizing a calculation that is intended to estimate the maximum dose to operations personnel during this accident. A primary component of this calculation is the dose contributed from inhalation and subsequent decay of Radon-220 (Thoron) and its daughter products.