

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 4, 2008

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/David Kupferer/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending April 4, 2008

Pressurized Drum Event: During the opening of a waste drum late last week, the drum lid forcefully ejected due to internal pressurization and struck the inside of the processing hood. The operator opening the drum noted that he was pushed backwards and his respirator was lifted partially up on his face. The operator was not injured and no radiological dose is expected.

This drum had been identified as bulging at the bottom (drum rocking was noticed) by operators earlier that day. The drum was packaged in the Enriched Uranium Operations Building in 2002 and contained contaminated combustible materials. After the bulging was identified, operators took appropriate action to back-off and contact the shift manager. Production management personnel contacted subject matter experts including fire protection, industrial safety and criticality safety to review the drum condition. After inspection of the drum, facility personnel and subject matter experts concluded that a small amount of pressure would remain in the drum. This position was documented in an e-mail and operators were directed to proceed with opening the drum in the processing hood. Facility personnel did not pursue remotely venting the drum as has been done in the past (see the 10/5/07 site rep. report).

Following the event, B&W suspended shipment and opening of these type of containers. B&W also issued a standing order to provide direction for handling drums that appear suspect. Other follow-up actions include inspection of other drums, developing site guidance on identifying and responding to bulging drums, re-evaluating drum configuration for these type wastes (e.g., use of vented drums) and developing lessons-learned. YSO management noted to the site reps. their concerns with decision making and application of formal Integrated Safety Management mechanisms in this event.

Secondary Extraction Operations: B&W continues to operate the secondary extraction (SX) system in accordance with the Justification for Continued Operations (JCO) that addresses the hazards associated with the presence of heavy organic materials. In February, B&W provided YSO with a report analyzing operations under this JCO as required by a YSO Condition of Approval (see the 2/22/08 site rep. report). This week, in the YSO response to the B&W report, YSO approved removing additional JCO time limitations for operating SX. However, YSO directed B&W to submit an updated facility safety basis by mid-November that captures the controls necessary for safe operations. In addition, YSO requested that operational information gained in late-2007 associated with sampling requirements (i.e., to ensure the sample does not contain organics) be clarified in the safety basis revision (see the 1/4/08 site rep. report). YSO expects B&W to continue to pursue engineered control improvements for inclusion in the safety basis revision.

Oak Ridge Transuranic Waste Processing: Last week, the contractor began their Operational Readiness Review (ORR) for startup of remote-handled transuranic waste processing in the new hot-cell at the Transuranic Waste Processing Center (TWPC). This week, the contractor ORR was completed and an ORR report issued. A few pre-start findings were identified including incomplete worker dose analysis and incomplete startup operations planning. DOE-ORO line management has not yet declared readiness for the DOE ORR, which is expected to begin next week.