

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 23, 2005

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending November 25, 2005

A. Melton Valley Transuranic Waste Processing. As reported last week, the DOE Office of Environmental Management (EM) initiated their Operational Readiness Review (ORR) for processing contact-handled transuranic waste. This week, the onsite portion of the review was completed and preliminary results were briefed to DOE-ORO and Foster Wheeler management. Pre-start findings are anticipated regarding lack of completion of DOE Facility Representative training, onsite emergency warning systems, and contamination control during drum loading into the glovebox. The ORR report is being drafted and is expected to be issued next week.

Also noted last week, the ORR team identified that several hundred drums were to be processed in the box breakdown area during the first year and not in the main glovebox, thereby not utilizing the engineered hazard control afforded by the glovebox. This week, the ORR team identified this issue as an observation, noting the planned approach was not consistent with the ORR Plans-of-Action and the Startup Plan. DOE-ORO management has verbally directed Foster-Wheeler to conduct operations consistent with these documents. DOE-ORO management noted to the site rep. that DOE-ORO will propose to DOE-EM that the Authorization Agreement address this issue.

B. Chip Container Failure - Update. As noted earlier this year (see 7/1/05 site rep. report), two containers with machine chips failed and a few liters of sludge-like substance spilled onto the floor. To provide a more suitable storage configuration while a disposition path is developed, BWXT plans to convert this material to an oxide and store the dry material in stainless steel cans. However, the special processing area that would be used to convert this material will not be available for this activity for potentially 1 to 2 years. In the interim, BWXT planned to dry and package the chips in a taped, slip-lid stainless steel can (argon inerted). The staff and site reps. have had several discussions with YSO and BWXT on the technical basis supporting interim storage of these potentially pyrophoric chips in this configuration. Based on these discussions, YSO and BWXT decided to sample and characterize the first batch of chips prior to additional processing. Last week, BWXT completed the drying and sampling activity for this first batch. Characterization results are expected next week.

C. Small Fire. On Tuesday, a small fire occurred in the Special Materials Processing building. The Y-12 fire department responded and extinguished the fire in less than 20 minutes. One BWXT employee was transported to a local medical facility for respiratory distress but has since been released. Facility maintenance personnel were repairing equipment associated with lithium hydride processing. The equipment is located in an enclosure that is normally inerted with nitrogen. To support this maintenance activity, the equipment and nitrogen purge were locked out and enclosure panels were removed. Loose lithium hydride powder in this area was also removed to the extent practical. However, a small fire associated with powder in this enclosure occurred as maintenance personnel were completing their activity. The facility and fire department have concluded that the area is now in a safe/stable condition. Facility personnel are also conducting an hourly fire watch. BWXT investigation of this event and development of a path forward is on-going.