

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 14, 2003

TO: J. Kent Fortenberry, Technical Director
FROM: Tim Hunt, Oak Ridge Site Cognizant Engineer
SUBJ: Activity Report for Week Ending March 14, 2003

Staff member D. Owen was on site this week providing site representative coverage.

A. Building 9212 Enriched Uranium Operations (EUO) Wet Chemistry Restart. By early this week, the NNSA Y-12 Site Office (YSO) had completed its review of the closure of prestart findings from the NNSA Operational Readiness Review. The site representative reviewed the closure documentation for these findings and considers it to be complete. As reported last week, 12 incomplete work packages for welds on the oxide dissolver and intermediate evaporator systems were identified. Required visual and dye penetrant examination records were missing from the packages (radiographic inspections records were in place). It was determined that verifications of weld work packages to be performed in response to weld quality issues identified in early 2002 had not been performed in the April to October 2002 time frame. In response, the required weld exams were performed and all weld records for wet chemistry were rechecked with no other deficiencies found. Also, YSO performed a sampling review of wet chemistry welds this week and no issues with weld quality or documentation were identified.

Following staff inquiry concerning the YSO plan for oversight of initial operations (see site rep. report of January 31st), the plan has been strengthened to specify YSO subject matter expert responsibilities to augment the oversight provided by the YSO facility representatives.

Based on the efforts discussed above, the DOE-YSO Manager authorized restart of wet chemistry operations on Thursday. The initial operation is planned for the oxide dissolver system during the week of March 17th. (2-A)

B. Building 9212 EUO Material Handling. A criticality safety requirement was violated this week during an effort to establish a floor storage array for portable dollies holding bottled solutions. Specifically, a criticality safety requirement of 12-inch minimum spacing between portable dollies outside of approved storage areas was violated by an EUO fissile material handler. The floor had been lined with tape by maintenance personnel to define the storage area but had not yet been posted as authorized for use. Due to congestion around this area, one loaded 6-bottle dolly was within the lined boundary and another loaded 6-bottle dolly was on the edge of the lined boundary. The material handler, providing an escort to the maintenance personnel, believed that the floor storage array was completed and moved the second 6-bottle dolly fully into the lined boundary next to the other dolly and violated the spacing requirement. That the loaded bottle dollies had not been removed from the area prior to the start of the work was attributed to a lack of proper communications between maintenance and operations personnel before and during the effort and lack of a proper prerequisite step in the work package.

Corrective actions include development of standardized instructions for establishing floor storage arrays, development of a lessons-learned document, training briefings to Building 9212 operations personnel on this event and fissile material handling operations in general, and development of actions to improve communication between operations and maintenance personnel. (1-C)