

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 19, 2003

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Donald Owen, Oak Ridge Site Representative  
**SUBJ:** Activity Report for Week Ending December 19, 2003

Staff members Andrews, Hunt, Nichols and Rosen visited Y-12 to review progress to disposition inactive nuclear materials. Staff members Gutowski, Quirk and White visited Y-12 to review instrumentation and controls for the Building 9212 Oxide Conversion Facility.

A. Building 9212 Electrical Fire - Update. As reported on November 21<sup>st</sup> and December 12<sup>th</sup>, a small electrical fire had occurred in an electrical panel supporting an office area in Building 9212. Investigation had revealed that the panel had a number of electrical non-conformances and little or no maintenance had been performed over the years. An effort had started in Building 9212 to perform thermal imaging and visual inspections of electrical panels to identify any non-conformances followed by correction of those non-conformances that warrant quick action; several additional panels were identified with non-conformances. Actions to address other facilities were to be defined by this week. Action plans have been developed to perform similar inspections at other nuclear and balance-of-plant facilities, prioritized by age/risk, and to complete the inspections by February 28<sup>th</sup>. YSO is reviewing the plans. Longer-term actions are to be determined based in part on results of this near-term effort.

BWXT's initial Significance Category 4 external report of this issue addressed the electrical fire in the one panel (a Significance Category 4 report is the lowest category report and is typically issued as a final report with no corrective action reporting required). The information indicating the broader problem with non-conformances in Building 9212 electrical panels was obtained subsequent to this report and has been known for about two weeks. The site rep. has been inquiring with YSO management as to why the broader problem had not been externally reported. On Friday, Y-12 management informed the site rep. that the broader problem will be externally reported as Significance Category 3 and will include reporting of corrective actions. (I)

B. Y-12 Inactive Nuclear Materials. The Board's letter of May 20, 2002, addressed management and disposition issues with inactive nuclear materials at sites managed by NNSA. As reported on August 15<sup>th</sup>, YSO had submitted plans for several inactive material disposition projects to NNSA Headquarters. The staff and site rep. reviewed recent progress on the nuclear materials management efforts at Y-12. Y-12 has identified 17 material streams that have no defined use with three categories of material that have no clear disposition path. The preferred disposition option for most of the no-defined-use uranium materials is processing at a commercial vendor since the previous preferred option of canyon processing at the Savannah River Site is cost prohibitive. Discard limits continue to be reassessed to potentially allow for disposition of much of the low-equity uranium materials as waste. The staff and site rep. noted many nuclear material items stored in combustible containers. Y-12 has plans to overpack some of these items, but essentially relies on facility sprinkler systems for mitigating the consequences of a fire. Overall, however, the Y-12 nuclear material management program is incrementally making progress to reduce risk posed by continued storage of inactive nuclear materials. (III)

C. Building 9204-4: Storage of Machine Chips - Update. As reported on October 31<sup>st</sup>, BWXT had been planning an effort to vent several unvented drums containing depleted uranium chips. BWXT had decided to incorporate certain controls to electrically ground the drums and have fire department personnel on-scene for quick response to a fire, should a response be needed. This effort is now planned for the week of December 22<sup>nd</sup>. (II)