

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 2, 2004

TO: J. Kent Fortenberry, Technical Director
FROM: Donald Owen, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending April 2, 2004

A. Y-12 Building 9212 Oxide Conversion Facility (OCF). One issue in the Board's letter of December 31, 2003 on OCF startup preparations was uncertainties regarding weld quality; specifically, missing radiographic films for certain piping welds. In response to the Board's letter BWXT has begun radiography on these and other system welds in the past week. BWXT has been reviewing the records and films of approximately 1000 critical welds to assure that proper documentation is in place for each weld. Results of this review to date indicate that films for 30 welds, previously stated as being available by Y-12 personnel, are missing; efforts are underway to either locate the films or evaluate performing re-radiography of those welds. YSO management noted to the site rep. that submission of YSO's input to NNSA Headquarters on the overall response to the Board's letter is expected in the next few weeks. (II)

B. Melton Valley Waste Processing Facility (WPF). As reported on January 30th, processing of supernate into a dried waste form was started at WPF. Operations had progressed during the past two months with no major issues. This week, however, WPF reported that radiological contamination was discovered in the boiler steam system. The boiler steam is used in supernate evaporation and drying steps. A pressure boundary leak is presumed. Follow-on surveys discovered contamination in the area of a boiler system tank vent line; remediation required the removal of about 500 lbs of surface material/soil. A number of response/corrective actions are in development by Foster-Wheeler including new procedures to flush the portions of the boiler steam system supporting the supernate dryer and verify that its pressure boundary is sound prior to completing in-process supernate. DOE-ORO personnel informed the site rep. that DOE-ORO is reviewing the proposed response/corrective actions and will require a formal assessment of readiness by DOE-ORO prior to restart of processing operations. (III)

C. Neptunium (Np) Storage at Y-12. As reported on July 17, 2003, planning was in progress for an ORNL program to process Np-237 as part of plutonium-238 production. The ORNL plans call for long-term Np-237 storage at Y-12. This week, YSO formally concurred with BWXT's proposal to store the Np-237 in Building 9204-2E, subject to completion of safety analysis and update of authorization basis documents. Initial shipment of Np-237 from the Savannah River Site to Y-12 is projected in FY-05. (II)

D. Feedback and Improvement. A primary, formal mechanism for effecting feedback and improvement at Y-12 is the "critique" process. In the recent past there have been a number of instances where the critique process was either not used or information has not been brought out on cause(s) from which to determine proper corrective/improvement actions. Examples include: (1) the critique process on the Building 9212 Denitrator system failure did not determine a specific root cause (see last week's report); (2) a critique was not performed following a report to Building 9204-4 shift management of use of an unauthorized, rigged device to get a vacuum lifting fixture to seat on a part (see 3/12/04 site rep. report); and (3) failure of line management critiques to determine specific causes for a damaged assembly in Building 9204-2E in late March requiring BWXT senior management intervention and investigation. Other issues with lack of effectiveness of the critique process have been noted in a recent YSO Monthly Assessment Report provided to BWXT. BWXT senior management noted to the site rep. that a review of the critique process and the recent implementation issues is in progress and results are expected in the near future. (I)