

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 15, 1999

TO: G.W. Cunningham, Technical Director
FROM: Donald F. Owen, Acting Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending January 15, 1999

Mr. Gubanc was at the Pantex Plant for training and will return the week of January 18, 1999.

A. Y-12 Building 9212 Elevated Uranium Levels Update: As reported in September 1998, elevated levels of uranium were observed in bioassay data for several individuals performing casting-related operations in E-Wing of Building 9212. Personnel were required to wear respirators for all activities in E-Wing pending corrective actions. In October, air flows through the main ventilation stack serving E-Wing were increased consistent with air discharge permits and other actions to reduce airborne levels were undertaken. By November, E-Wing air monitoring data supported the decision to allow routine walkthroughs, inventories, tours, etc. to be performed without respirators. Recent air monitoring data has now allowed for most material handling activities to be performed without respirators. Limited material transfers, batch makeup, knockout, pickling, chip briquetting, and metal break & shear activities still require respirators. Several additional actions such as bagging of material during transfers, repair of certain ventilation dampers and enclosure doors, and startup of the dry vacuum system are in progress to address these remaining activities requiring respirators. Subsequent to a Board staff review in December, LMES is considering other engineered controls to reduce airborne levels in E-Wing. A LMES report on this issue is to be submitted to DOE by early February.

B. Y-12 Building 9212 Hydrogen Fluoride (HF) System Update: The Board's letter of August 24, 1998 discusses a breakdown in quality assurance of pressure boundary welds in the HF system being constructed to support future enriched uranium metal production. Subsequently, DOE and LMES decided to conduct field radiographic inspections of HF system pressure boundary welds to assure proper weld quality. In December 1998, radiography was started. Of the first five welds to be radiographed one weld was defective and required repair. Radiography was performed last weekend and will continue through several successive weekends as construction of the HF system progresses.

C. Y-12 Phase B Hazard Evaluations: A pilot hazard evaluation effort was underway this week to apply standard process hazard evaluation techniques to the Phase B enriched uranium metal production operations being prepared for restart. This pilot effort was focused on the reduction process where uranium tetrafluoride is reduced to uranium metal. The multi-disciplined hazard evaluation team was using the what-if/checklist technique for this pilot effort. Results from the hazards evaluations will be utilized in revising the Building 9212 BIO and will serve as input for Job Hazard Analyses for each operation after specific process steps are defined. This approach has the potential to improve integration of safety into the Phase B operations.

D. Congressman Wamp Y-12 Visit: Tennessee Representative Zach Wamp visited Y-12 on Wednesday, January 13. He received information on modernization plans for Y-12 to support anticipated nuclear weapon system return and refurbishment campaigns for the next 20-30 years. He toured B-1 wing of Building 9212 where operations supporting enriched uranium metal production are being prepared for restart. He also toured certain areas with aging site utility infrastructure.

cc: Board Members