

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 2, 1999

TO: G.W. Cunningham, Technical Director

FROM: David T. Moyle, Acting Oak Ridge Site Representative

SUBJ: Activity Report for Week Ending April 2, 1999

I covered the Oak Ridge Site Office this week while Paul Gubanc was on annual leave. As part of my general site orientation I received some site specific training for unrestricted access, toured the 9720-5 warehouse and toured assembly and disassembly operations.

A. Y-12 Building 9215 Ventilation: As reported by Paul last week, M-Wing high enriched uranium machining operations were suspended on March 18 pending recovery action by Lockheed Martin Energy Systems (LMES) to correct a deficient ventilation condition. On March 26, 1999, LMES issued a response to the DOE Y-12 Site Office (YSO) which specified proposed compensatory measures to trip the ventilation supply fan if an accident condition such as a loss of confinement of uranium chips or a fire occurred. The response also included a recovery schedule to startup the new exhaust system, which would bring the M-Wing to a negative pressure, by May 14, 1999. On March 27, 1999, YSO accepted the compensatory measures. The new exhaust system may be on line ahead of the May 14 deadline, as clean out activities in ductwork (which was inadvertently contaminated during a system flow test) were completed ahead of schedule. (II-B.1)

B. Enriched Uranium Operations - Phase B Schedule: Recognizing an inability to startup all phase B processes as planned by the end of this year, LMES has proposed a new schedule which includes startup in two separate blocks. Block 1 includes operations associated with converting UO_3 to uranium metal. The first ORR is scheduled for September 1999 and metal making operations should begin in November 1999. Specific systems include: hydrogen supply, HF supply, fluid bed reactors, and reduction operations. The remaining 10 phase B processes, which are mainly associated with continuous recovery of uranium in wet chemistry extraction and purification systems, will undergo an ORR in May/June 2000. Full production is projected for October 2000. (II-B.2.b)

C. Anhydrous Hydrogen Fluoride (HF) Supply System: Construction of the HF system is essentially complete. All defective primary containment welds have been repaired and passed radiographic analysis. In order to fix the primary welds, several secondary containment sections were removed and rewelded under enhanced quality control. For the remaining secondary containment welds which were not redone, LMES intends to bring in representatives from the Tennessee Valley Authority to conduct ultrasonic testing to verify adequacy. (I-A.3.a)

D. Lithium Recovery Operations: On March 31, 1999, an overpressurization occurred in a salvage vat where a HEPA filter was submerged in water to dissolve trapped lithium materials. Some caustic solution and smoldering lithium residue were expelled. There were no adverse worker effects (the operator was in a different area completing other work tasks) and no equipment damage. The Board staff will follow up to determine the role of integrated safety management in this incident. (II-B.1.a)

cc: Board Members