

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 6, 1998

TO: G.W. Cunningham, Technical Director

FROM: Paul F. Gubanc, Oak Ridge Site Representative

SUBJ: Activity Report for Week Ending November 6, 1998

Staff members Andrews and Zavadoski were at Y-12 this week to follow up on ventilation, safety basis and other concerns with enriched uranium and other Y-12 defense nuclear facilities.

A. Y-12 Enriched Uranium (EU) Phase-A2: Preparations to operate the EU Phase-A2 processes continued this week as follows:

1. The operations staff continued to practice operating different A2 processes this week. Maintenance crews continued to work off equipment deficiencies and had only about six items to complete on Friday. Physically and operationally Phase-A2 seems well poised for the ORR.
2. The number of EU "Pre-A2" open issues in the LMES commitment tracking system ("ESAMS") has declined to 43. Many of the corrective action plans have been rejected causing further delays to closure. Many address long-standing issues (e.g., fire protection).
3. Equipment problems with the Holden Gas furnace precluded its operation this week. The facility plans to operate the furnace this weekend using the operating procedure (1st time).
4. An emergent issue regarding the fire loading assumed in Building 9212 safety documentation will probably become a USQ and may affect the fire protection system controls (e.g., safety classification).

The DOE ORR will commence on November 9 and is tentatively scheduled to complete on November 18.

B. Y-12 Building 9212, E-Wing: The following information regarding elevated airborne uranium levels in Building 9212, E-Wing, was collected this week:

1. The fixed-head samplers throughout 9212 are located at approximately seven feet off the floor. This height conveniently avoids the workers' heads but would appear of questionable value for monitoring the breathing zone; especially for a dust as heavy as uranium oxide.
2. The LMES RadCon organization is continuing to collect and analyze bioassay data to assess worker exposures and the highest airborne risk activities in EUO (not all of which appear limited to E-Wing). The staff has requested some of this data for its own evaluation.
3. Two weeks ago, EUO assigned a senior line manager to focus on the airborne problem in E-Wing. This manager is still collecting information to define the full extent of existing hardware deficiencies. On November 5, I joined him to observe casting operations in E-Wing and inspect the condition of the ventilated enclosures. Numerous deficiencies (most previously identified, some not) were noted with the condition of the enclosures.
4. The RadCon and EUO efforts, while appropriate, are focused on very near-term concerns and not on a holistic engineering approach. These efforts may result in reducing the airborne hazard but unless the causes for the elevated levels (as compared with past history) are specifically determined and verified, no one will know for certain which corrective actions were truly effective and should be maintained for the long-term.

Additional review by the staff will be discussed next week.

cc: Board members