

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 1, 2000

TO: J. Kent Fortenberry, Technical Director
FROM: Paul F. Gubanc and David T. Moyle, Oak Ridge Site Representatives
SUBJ: Activity Report for Week Ending December 1, 2000

Staff members Gwal and Graham visited Y-12 this week to review electrical safety. Mr. Gubanc was on sick leave Tuesday through Thursday.

A. Y-12 Electrical Safety: The Y-12 electrical safety program appears sound. Some issues discussed:

1. The electrical safety committee is not being fully exercised beyond their responsibilities for standards and procedures preparation. There is much more that they should be involved in.
2. Excavation activities should always require remote monitoring (e.g., ground penetrating radar) to detect and avoid damage to subsurface utilities. The staff stressed that use of detection equipment is prudent as defense-in-depth even when good drawings are believed to exist since the field runs are often not well captured in the drawings.
3. The electrical worker training program appears rigorous and emphasizes zero voltage checks before doing work. The staff suggested stronger procedural requirements for doing these checks.
4. Efforts to deal with the large backlog of overdue preventive maintenance (PM) on 480V breakers appear reasonable and making progress. However, the more fundamental issues of equipment data configuration management, how to deal with PMs beyond their overdue window, and participation by the Design Authority and electrical Authority Having Jurisdiction, have yet to be resolved and will require upper level management involvement for timely closure. (1-C)

B. Y-12 Fire Protection: Last week we reported on the large numbers of spurious faults and alarms coming in on the fire alarm system. This week, an event occurred which we believe dramatizes how these recurring alarms overload and desensitize the alarm panel watchstanders.

- On November 10th, a fire fighting foam deluge system for an organic waste storage area had its air compressor taken out of service and replaced with a gas bottle. (Air pressure is used to keep the water supply valve shut.)
- On November 22nd, a Supervisory Low Air Alarm was received in the alarm room. No action was apparently taken to correct the condition.
- Early on the morning of November 26th, the foam system actuated.

The waste management operator has since cleaned the area and the deluge system has been reactivated. Y-12 critiqued this event on November 27th but as of Friday the minutes have not been finalized nor has BWXT declared this event a reportable occurrence. YAO is continuing to press on both of these issues. We will follow up with BWXT and YAO to assure that the root causes of this event are adequately identified and recognized for their implications on the site as a whole. (1-C)

C. Y-12 Enriched Uranium Operations (EUO) - Reduction: BWXT issued its schedule for resumption of reduction operations on November 22. The first key milestone in that schedule was met on November 30, when BWXT completed the engineering reports documenting the reduction vessel technical basis. We will begin our review of that technical basis next week. We also learned this week that a pressure test of the reduction vessel lids failed due to leakage past the threaded valve connection (a modification to allow pressure monitoring of the vessel during operation). Previous staff reviews discussed pressure testing these lids to verify that their structural integrity is not adversely affected by the modification. (2-A)

cc: Board Members