

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 30, 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 June 30, 2000

Mr. Gubanc was at nuclear criticality training all week. Staff members Shields, Bamdad, Coones, and outside expert West reviewed the Y-12 fire protection program this week.

A. Y-12 Fire Protection: The staff conducted a review of the Y-12 fire protection program and toured enriched uranium operations facilities and two depleted uranium warehouses. In general, the staff expressed its disappointment with the state of the fire protection program.

1. The requirements structure is complicated, the fire protection program is not fully compliant with DOE Order 420.1, and there is a lack of commitment to bring the program into compliance.
2. A lack of adequate funding and staffing has resulted in out of date Fire Hazard Analyses and assessments, incomplete surveillance and maintenance, and persistent deficiencies.
3. Configuration management of fire protection systems languishes with no efforts to reconstitute out-of-date drawings.
4. There is an over-reliance on compensatory measures, which often remain in place indefinitely without efforts to correct the underlying deficiencies.
5. Poor Y-12 project management has been demonstrated in the installation of a new fire alarm system. For years the project has suffered schedule delays and high cost overruns. This May, the incomplete system ran out of project funds and was turned over to operations. Several items still require design and installation, and some design requirements are known not to have been met.
6. Building 81-22 represents a fire risk that has failed to receive adequate attention. The wooden structure has no lightning protection and stores quantities of depleted uranium in wooden crates. There is a sprinkler system, but it is not clear that it is adequate for the combustible loading.
7. Installation of new self-diagnostic emergency lights is lagging. Building 9206, for example, requires flashlights as a compensatory measure, rather than replacing the old emergency lights which are not maintained and are known not to meet specifications. (2-A, 1-C)

B. Y-12 Building 9212 Uranium Metal Reduction: Mr. Moyle toured the reduction area on Friday, and noticed some housekeeping improvement. Several carts and at least one out-of-service reactor vessel have been removed. LMES hopes to remove the rest of the out-of-service vessels prior to the proposed restart in late August. It is disappointing, however, that since the failed readiness assessment in November 1999, the vacuum pump has not been repaired, and the two operators have not performed any cold runs. The reactor cap bolt torque requirement has been increased, but testing has not been done to verify that adequate vacuum can be achieved. In upcoming staff reviews, we will also investigate criticality safety in the UF₄ blending glovebox which may contain a large quantity of material, and may be susceptible to water addition from sprinklers. (2-A)

C. DOE Staffing: DOE-ORO has selected a Y-12 Facility Representative (FR) to become the director of the new Assessment and Emergency Management Division of the Environment, Safety, Health, and Emergency Management Office. While certainly a positive addition to the management team, this promotion further compounds the Y-12 FR shortage leaving only 5 billets staffed out of 8 currently authorized. (1-B)

cc: Board Members