

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 19, 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 May 19, 2000

Staff members Coones, Fingerlos and Martin reviewed Y-12 weapons program hazards analyses.

A. Y-12 Enriched Uranium Operations (EUO) and Restart: Recent events suggest that DOE and LMES continue to struggle to maintain a clear and consistent direction to restart EUO:

1. After agonizing for many weeks over how to reduce Y-12's costs for this fiscal year, LMES laid off approximately 85 EUO subcontractors (April 14 & 28) with only a few hours notice. Only after this occurred did DOE and LMES start to assess the impacts of the layoff and prospects for salvaging EUO restart. LMES is still attempting to identify what human resources can be made available in-house to support EUO restart.
2. LMES hired back three EUO subcontractors within days of the April 28 layoff, and an additional two this week. These subcontractors (as well as newly arriving LMES internal transfers), must now attempt to identify where and how to pick up the pieces dropped three weeks ago.
3. In discussions on May 12 and in a memo dated May 16, DOE-DP advocated a "dramatic departure" from the current restart approach and dictated the restart dates for Phases B-1 and B-2. We believe that there is no simple panacea. *Extensive technical involvement* by both DOE and contractor management is required to a) understand the restart schedule's detailed components, b) identify what actions/groups dominate the duration (we believe they include engineering and maintenance), and c) work to shorten those durations through management action (e.g., exercising accountability at all levels, streamlining burdensome administrative processes, and making technically-based firm decisions on a path forward to allow more focused efforts).
4. In mid-April, the rate of EUO corrective maintenance completed peaked at about three times the historic average. Since then, it has dropped back and plateaued to less than twice the historic average. Neither DOE nor LMES management seem to be reacting strongly to this drop. (2-A)

B. Y-12 Building 9212 B-1 Wing Fire Sprinkler: While on site, Mr. Coones reviewed the B-1 Wing sprinkler system project. The staggering \$20M price tag equates to \$72,500/head for the 276 head system, versus \$500-\$1000/head for typical nuclear construction work. Some of this is a result of high indirect and overhead costs (which can triple estimates), and excessive support costs (\$0.5M for criticality safety). Costs are also driven by the 2N safety grade, seismic qualification, and strengthening of the building to support sprinkler piping, yet these requirements may not have adequate basis. The supply system is ordinary construction and not seismically protected so B-1 Wing sprinkler operability following a seismic event may be a moot point. Also, LMES engineering personnel state that from a structural standpoint, the building is satisfactory for existing loads, including seismic. We feel that logical steps can be taken to implement this important safety system at significantly lower cost. (1-C, 2-A)

C. External Meetings: On Tuesday, we met with the staff of the Tennessee Department of Environment and Conservation (TDEC) as a follow up to the Board's tour of Y-12 with TDEC in early April. On Wednesday, we briefed the Oak Ridge Mayor and City Manager on the role of the DNFSB. Both meetings were well received and resulted in agreements for further interactions.

c: Board Members