

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 25, 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 August 25, 2000

Mr. Moyle was on paternity leave Tuesday through Friday. Staff member Jay DeLoach and outside expert Bob Lewis were at Y-12 to observe the DOE ISMS verification followup review.

A. ORNL Building 3019: On Wednesday, Building 3019 retrieved and shipped five packages of U-233 to support cancer therapy research. The evolution was performed efficiently and without incident. Immediately after the evolution, facility management conducted a lessons learned session where additional process enhancements were identified for future retrievals.

Next week, DOE will conduct a followup ISM review for portions of ORNL, including 3019. (3-A)

B. Y-12 ISM Verification: The DOE ISM review of Y-12 continues through to August 31. On Thursday, the LMES ISM independent assessment (conducted August 7-24) issued their final report which identified several significant findings. Our views of the report and its findings include:

- The LMES review team was technically strong, energetic and candid. The report is credible.
- The nuclear facilities' operations were found, in general, to be conducted in accordance with the LMES ISM program description. While there were some specific implementation and consistency issues, nuclear operations were implementing the ISM core functions.
- The report identifies "planning and performance of maintenance across the site is a significant issue." More specifically, many of those responsible for planning maintenance are untrained in their own processes and procedures, hazard identification and analysis processes are not being employed when necessary, management accountability for and knowledge of maintenance are inconsistent and/or weak, and management is ineffective at identifying and correcting poor performance. Some of the more egregious examples include:

**S** One person in preparing a maintenance work package signed as the maintenance planner, maintenance supervisor, operations line management and work start authority.

**S** A 34-ton tank rigging job resulted in damaging the tank because the appropriate lifting equipment and lift planning was not employed.

**S** On August 4, the team identified that the site potable water system was potentially jeopardized since 21 backflow preventers (BP) were overdue for testing (typically annual) and 17 others had failed their last test. (Due to the redundant design of the BP [i.e., two check valves in series], a "failure" does not necessarily mean that the BP will not function but its reliability is degraded.) The utilities manager, who is responsible for maintaining the potable water clean, does not own the maintenance for the BPs. LMES is now testing, evaluating or isolating the BPs as appropriate, but the ownership issue remains unresolved.

**S** Approximately 200 480V circuit breakers were identified as overdue for cleaning and inspection but are still energized and in service. The oldest overdue breaker was due for cleaning/inspection in 1986 suggesting that it was last serviced in 1981 (i.e., five year PM).

LMES is taking action to establish corrective actions to these findings, however, the underpinning issue remains that issues with ISM implementation by Y-12 maintenance were identified for correction after the 1998 and 1999 ISM reviews. This will be the third attempt in three years. (1-C)

cc: Board Members