

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 19, 2001

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Paul F. Gubanc and David T. Moyle, Oak Ridge Site Representatives  
**SUBJ:** Activity Report for Week Ending January 19, 2001

Staff members Dwyer and Moury and outside expert Lewis reviewed Y-12 maintenance this week.

A. Y-12 Maintenance: Some of the key highlights of the staff review this week:

1. DOE/NNSA Y-12 Area Office (YAO) has not established specific actions and due dates for the contractor to address known deficiencies with the maintenance program and work execution.
2. Y-12 has comprehensively mapped the flow of order requirements down through the contract and S/RIDs into the site procedures. However, in tailoring the S/RID language, Y-12 vitiated the DOE Order 4330.4B, Section 10.b. requirement on periodic inspections of structures, systems, components, and equipment. This requirement is focused on the safe and reliable operation of a facility, determining whether deterioration is taking place, and identifying and addressing technical obsolescence that threatens performance, safety, or facility preservation. YAO was cognizant of this noncompliance but had not developed a technical basis or processed the necessary exemption justification and approval in accordance with DOE O 251.1A, *Directives System*. This requirement is key to implementing Board Recommendation 2000-2.
3. Complaints about the size and complexity of maintenance work packages were investigated.
  1. The formal work planning process, albeit difficult to follow and deliberately ambiguous (to provoke thought) in places, appears complete and does not prescribe unnecessary detail.
  2. Despite recent improvements, many supervisors, planners and workers still lack sufficient proficiency to understand what major pieces constitute a work package and the relevance of those pieces to their task. As a result, some packages are burdened with inappropriate, superfluous or perfunctory documentation.
  3. Only a small portion of Y-12 packages contain the work instructions; most of the bulk is composed of necessary documentation for proper planning. BWXT management is examining methods for highlighting the information relevant to the workers tasks.
  4. BWXT initiated several maintenance-related site-level corrective actions as a result of the staff review (e.g., justifying the operation of equipment with overdue preventive maintenance). The issues behind these actions were previously identified in the August/September 2000 ISM verifications but were not identified for correction in BWXT's ISM action plans. We suggested that BWXT reexamine the completeness of their ISM action plans. (1-C)

B. Y-12 Enriched Uranium Operations (EUO): Ending a two month review, the BWXT corporate assessment team for EUO process based restart issued their final report and outbrief this week. The assessment identified 28 noteworthy practices and 83 Opportunities for Improvement (OFIs). From a project management standpoint, OFIs focused on a need to strengthen project integration to gain efficiencies specifically in work control and scheduling. Additionally, the team highlighted the need to integrate mission requirements into restart and operations planning recognizing both product and by-product disposition requirements. Specific to HF and Reduction processes, the team found no technical flaws that would preclude safe startup by the currently scheduled dates. Two chemical industry experts evaluated the HF system design and construction against standard industry practice, and although complimentary, recommended 24 specific improvements. EUO will now evaluate each OFI for its relative merit and take any actions deemed appropriate. (2-A)

cc: Board Members