DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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TO: J. Kent Fortenberry, Technical Director
FROM: Paul F. Gubanc, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending August 3, 2001

A. Y-12 Vacuum Lifting Fixtures: Vacuum lifting fixtures (VLFs, a metal bell with an elastic lip and vacuum port) are commonly used at Y-12. During the NNSA Readiness Assessment (RA) for the new disassembly campaign, the RA team and I raised questions about the calibration of the vacuum gauge attached to each VLF. Despite our satisfaction that the functional check conducted annually on the gauge was satisfactory, some contractor personnel took it as direction to fully calibrate these gauges. After struggling internally for several weeks on this issue, BWXT requested a meeting with me. I brought along the YAO Facility Representative for Assembly.

- DOE and national standards do not explicitly address or require calibration of this gauge.
- The Y-12 engineering staff was operating under the assumption that the site standard on VLFs was adequate and being used. In particular, the site standard calls for a daily vacuum drop test (i.e., the VLF is attached to a test surface, the vacuum source is applied then secured, and the vacuum level in the VLF is observed to see how well it holds).
- YAO advised that they had never observed performance of a daily vacuum drop test. After prompting by YAO, Y-12 Assembly secured use of all VLF's until Engineering provided an acceptance criteria. Engineering ultimately cited ASME B30.20 which specifies less than a 10% loss in 4 minutes. On the first day of testing, a leaking hose was discovered. (2-A)

B. Y-12 Fire Protection: On August 9, BWXT issued its fire protection corrective action plan to YAO. A copy has been requested to be forwarded to the Board staff. Additional insights since last week's report regarding the plan include:

- The ten-year plan is estimated at a total cost of $150M although BWXT acknowledges it is still validating the cost estimate and accounting for efficiency improvements.
- The plan includes a $25M line item for the Building 9212 B-1 sprinkler system. This is a 25% increase from the estimate of last year ($20M) which the staff found grossly excessive (see reports of May 19 and June 9, 2000, and January 5, 2001). (1-C)

C. Y-12 Material Storage: BWXT expects to issue today its plan for improving non-material access area (non-MAA) storage (e.g., depleted uranium). Highlights of the plan include:

- Short-term (i.e., FY02) plans to complete emptying Building 81-22, repackaging and removing the inventory from 9720-14, and assessing all 15 "Conex" trailers adjacent to 81-22 and repackaging/emptying at least three of them.
- Three long-term initiatives focused on 1) updating and consolidating material inventory databases, 2) establishing material disposition technologies and pathways, and 3) storage facilities condition assessment and deactivation planning. For each of these initiatives, I identified parallel on-going Y-12 activities which could afford synergy or lessons-learned.

Assuming sufficient funding is provided to accomplish the plan (BWXT says they can find it), many of the staff's concerns with non-MAA storage should be ameliorated. (1-C)

cc: Board Members