

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 14, 2001

TO: J. Kent Fortenberry, Technical Director
FROM: Paul F. Gubanc, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending September 14, 2001

Staff member Forsbacka was at Y-12 this week to assist with Site Rep duties.

A. Y-12 Disassembly Operations: A BWXT tooling engineer recently discovered that a gripping tool used to extract components from their shipping assembly had been modified with apparent disregard to the design limitations of the tooling. The modification in question replaced a hand-operated pump for a hydraulic ram used to pull the gripping tool with an electric pump. The tooling was designed to operate with a maximum pressure of 800 psi; the electrical pump can deliver 10,000 psi and had been operated at 3000 psi. Using the pump at this setting resulted in plastic deformation of the gripping tool. An unreviewed safety question (USQ) screening was never performed on this modification nor was there adequate interaction with tooling designers. YAO has informed BWXT that resumption of this disassembly operation will require both a BWXT and an NNSA readiness assessment (RA) though the scope is still being determined. Our inspection of the disassembly tooling this week revealed other mechanical problems including one tool with an attached ball lock pin fractured from prior abuse/misuse. (2-A)

B. Oak Ridge Response to Terrorist Attack: Gubanc and Forsbacka closely followed the evolution of enhancing the security posture of Y-12 in response to Tuesday's terrorist attacks on New York City and Washington, DC. The response by NNSA/YAO and BWXT was swift, well coordinated and appropriately performed without asking for Headquarters direction. An orderly lock-up of materials was ordered and a controlled exit of non-essential employees was initiated. Operations were resumed the next day. DOE held a complex-wide lessons-learned video conference on Thursday; many comments reflected the unique aspects associated with this event versus typical emergency response which focuses on an accident at a particular location. Local response clearly benefitted from Y-12's practice in emergency exercises over the past year. (1-C)

C. Y-12 Non-MAA Storage: This week, BWXT completed relocating material (primarily depleted uranium metal) from Building 81-22 to more suitable on-site storage locations. This completes one of the initial corrective actions committed to in BWXT's long-term plan for addressing non-MAA (i.e., non-highly enriched uranium) material storage. (1-C)

D. ORNL Building 3019: DOE-ORO continues to struggle to close the U-233 Inspection program ORR findings associated with the selection of safety-related controls in the 3019A authorization basis. This week, ORNL also self-identified that their seismic analysis for the 3019A penthouse assumed the existence of certain structural members which are not installed. The calculations are being revised to reflect the existing condition and to confirm whether the penthouse structure is still sufficient to meet performance category 2 (PC-2) criteria. (3-A)

cc: Board Members