

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 11, 2003

TO: J. Kent Fortenberry, Technical Director
FROM: Donald Owen, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending July 11, 2003

A. Y-12 Building 9202 Explosion/Fire - Update. As reported on May 23rd, BWXT had been investigating the explosion and fire that occurred in a glovebox during development testing of a process related to uranium metal production. Late last week, BWXT issued the final report of the independent investigation team chartered by BWXT management. The independent team identified the direct and contributing causes and identified recommendations to address those causes. The independent team's major recommendations included instituting the following for technology development efforts going from bench to production scale: chemical process safety analysis; formal process and equipment design reviews; and formal startup testing protocols. The team noted the need to consider use of outside expertise in these recommended analyses/reviews. BWXT is finalizing their corrective action plan. (1-C)

B. Y-12 Building 9720-5 (Warehouse) Material Packaging. As reported on June 13th, the NNSA Operational Readiness Review for the program to sample and repackage enriched uranium button materials in the Warehouse was completed. The YSO Manager granted startup authorization to BWXT on June 27th. This week, BWXT started these material packaging operations. A container with button material was introduced to the glovebox but was not sampled and repackaged as the button material was not in pieces as expected and will not fit the intended packaging. This button material (and any other such whole or near-whole button materials) will eventually be transferred to Building 9212 to undergo a shearing operation and then processed under this program. (2-A)

C. Y-12 Building 9212 Enriched Uranium Operations Wet Chemistry Restart. An attempt to start the Primary Intermediate Evaporator process last week was unsuccessful when steam was not flowing to the evaporator equipment as intended. Followup by operations personnel revealed that a steam utility valve on the roof of Building 9212 had been closed and this had not been known by wet chemistry operations personnel. A Management Review (or fact-finding/critique) of this issue had not been called by Wednesday of this week and the site rep. had noted this to YSO personnel. On Thursday, YSO and BWXT personnel informed the site rep. that a Management Review will be conducted early the week of July 14th. (2-A)

D. Combustible Control/Housekeeping. As reported on June 27th, the staff noted substantial combustible, excess/unnecessary materials in sections of the E-Wing basement area of Building 9212; no action had been apparent from recent BWXT monthly fire safety inspection reports noting similar conditions. Staff observations forwarded by the Board's letter of June 3, 1997 also had noted such conditions in the E-Wing basement areas. A separate walkthrough in Building 9204-4 (component quality evaluation) by the staff had revealed similar combustible control/housekeeping conditions in certain areas. This week, Building 9212 and Building 9204-4 management informed the site rep. that near-term cleanup actions are in progress or being planned. Building 9212 management also noted the need to identify actions that will prevent recurrence of these conditions in E-Wing basement and indicated such actions will be defined by late July. (1-C)

cc
Board Members