

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 1, 2005

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending April 1, 2005.

Staff member Bill Von Holle was on-site this week to observe the YSO Readiness Assessment for microwave casting operations.

A. BWXT Management. This week, the BWXT Y-12 General Manager announced that Darrel Kohlhorst, previously the Manufacturing Division Manager, has been selected as the Deputy General Manager, Operations. Prior to this announcement, Steve Liedle was functioning as the only Deputy General Manager for BWXT. Mr. Liedle was named as the Deputy General Manager, Programs. Leslie Reed was selected as the new Manufacturing Division Manager.

B. Microwave Casting. YSO began their Readiness Assessment (RA) for startup of the microwave casting operation (a prototype campaign limited to 15 runs) in the Enriched Uranium Operations building this week. The RA is expected to be completed by April 6th. The site rep. and staff observed the demonstration of the operation with copper as surrogate. Most portions of the operation were demonstrated as planned; however, molten copper was not introduced to the mold from the crucible due to complications from a loss of power to the microwave. The power loss began with an inadvertent bump of a pyrometer by an operator causing an interlock to trip and then followed by an unsuccessful attempt to restart the microwave power. Some of the issues under review by the RA team include content of the procedure, level of knowledge of operations personnel, and configuration of the microwave chamber pressure relief system.

C. Off-Specification Uranyl Nitrate Solutions. As a part of the uranium disposition program, about 180 bottles of off-specification uranyl nitrate solution are to be converted to an oxide (see 11/24/04 site rep. report). To perform the conversion, BWXT has constructed a small-scale evaporator (i.e., hot-plate) and precipitator in an existing hood in the Enriched Uranium Operations building and will use an existing tube furnace to calcine the precipitate. This week, BWXT began their RA for the startup of this processing campaign. The site rep. observed the BWXT RA including process demonstrations. It appears that pre-start findings will likely be identified for procedure issues and identification and training for control manipulations. The RA team plans to issue their final report next week. This equipment will likely be used for additional processing campaigns following this initial campaign.

D. Activity-Level Work Planning. As previously reported, Y-12 had developed protocols to perform higher levels of review and approval of infrequent, potentially hazardous activities (see 12/10/04 site rep. report). These reviews would be conducted by a facility operational safety board (OSB) or a site review board. On Friday, a YSO Facility Representative (FR) in the Enriched Uranium Operations building noted preparations were underway for a maintenance activity to replace a conveyor belt in a casting line glovebox used for knockout of cast items from the molds. This activity has not been performed in many years. The YSO FR inquired with facility management as to whether the work planning review protocols had been employed for the activity and was informed they were not. In response, facility management has put the activity on hold pending an OSB review next week.