

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 21, 2004

TO: J. Kent Fortenberry, Technical Director
FROM: Donald Owen, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending May 21, 2004

The site rep. office was relocated (as were many YSO and BWXT senior management offices) this week from Y-12 Building 9704-2 (to be demolished later this year) to Y-12 Building 9115.

A. Building 9212 Wet Chemistry Startup. As reported last week, YSO management stated that a YSO review of personnel, training, equipment and procedures for Primary Extraction and Secondary Extraction processes was going to be performed. This review was to address a site rep. and staff inquiry on the fact that these processes have not been started with enriched uranium in more than one year since startup authorization was granted by YSO. This week, YSO started its review and also decided to extend the scope of the review to the Denitrator system due to problems encountered with initial operation and follow-up causal analysis (see site rep. reports of January 23rd and March 26th). The YSO review is now expected to be completed during the week of May 24th.

B. Y-12 Criticality Safety. The Board's April 5, 2004 letter noted the need for further DOE effort in several areas of nuclear criticality safety. One area included the need for DOE to ensure that the Criticality Safety Support Group (CSSG) devoted more of their resources to field activities this year. In late April at the request of YSO management, three members of the CSSG performed a review of criticality safety at Y-12 with a focus on fissile solution operations in Building 9212. This week, the team provided their review report to YSO management. The overall conclusion of the team was that while implementation of criticality safety was generally satisfactory, certain issues require additional attention from operations line management. Among these issues are: need for an engineered control to augment the administrative controls for certain tanks that not designed to preclude a criticality; recurrent criticality safety deficiencies; discrimination of minor deficiencies from potentially safety-significant events; resolving recommendations from the Y-12 criticality safety advisory council and the Y-12 criticality safety committee; continued high turnover rate of Building 9212 chemical operators; and inhibited flow of criticality safety information between management and operations personnel. YSO management is planning to transmit these issues to BWXT for action.

C. Y-12 Conduct of Operations/Criticality Safety. Two recent events have occurred where a criticality mass limit of 20 kg was violated, one in late April in Building 9212 E-Wing during break pressing of parts and one this week in Building 9215 during shearing of items. In the Building 9212 event, a container with 20.030 kg of material was stored after the break press operation; the event was discovered after several days when a material handler noted the mass that had been recorded on the batch card. A corrective action was to add more specific instructions to the procedure to ensure limit compliance. In the Building 9215 event, items being placed in the shear enclosure were not precisely being tracked for total mass (the operator was mentally adding masses) and 20.500 kg was placed in the enclosure (no corresponding specific instructions had been added in the Building 9215 procedure). YSO management noted to the site rep. that YSO review of the latest event is in progress.

cc
Board Members