

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 24, 2007

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending August 24, 2007

A. Building 9212 Annual Assessment. This week, the staff and site reps. discussed with YSO and BWXT personnel the plans for responding to the Board's letter dated March 13, 2007. This letter requested NNSA to provide an annual assessment of the adequacy of the Building 9212 Complex to support safe operations. The initial NNSA briefing to the Board on the approach for this assessment is expected to occur by early-October. YSO and BWXT personnel described their plans for separate contractor and NNSA chartered teams to conduct the annual assessment. These teams would utilize a number of different facility metrics (e.g., vital safety system health, system availability, maintenance performance) as well as targeted physical condition assessments of key systems to assess the overall facility condition. The staff and site reps. noted that assessment of preventive maintenance performance may need more emphasis and that the basis for selection and periodicity for physical condition assessments of key systems was not clear.

B. Criticality Safety/Uranium Holdup Survey Program. Last week, BWXT identified uranium holdup in excess of the criticality safety mass limit for filters associated with a glovebox in the Enriched Uranium Operations Building. The situation was evaluated by criticality safety personnel and administrative control of the glovebox has been established pending replacement of the glovebox filters. Late last year, the Criticality Safety Evaluation for the glovebox was revised to specify a particular uranium mass limit. Prior to that change, the evaluation required implementation of the Uranium Holdup Survey Program (UHSP) with no specific mass limit. During implementation of the revision, it does not appear that BWXT personnel adequately evaluated the UHSP action points, which would trigger non-destructive quantitative measurements, to ensure compliance with the mass limit. As a part of the follow-up actions for this event, BWXT is evaluating other actions levels to ensure they support criticality safety mass limits. In addition, the uranium holdup approach for these filters is to be evaluated as part of the Inadvertent Accumulation Prevention Program walkdowns (see 5/11/07 site rep. report).

C. Uranium-233 Disposition at ORNL. Isotek assumed responsibility for Building 3019 operations from UT-Battelle in February (see the 3/2/07 site rep. report) with subsequent operations largely limited to surveillance and maintenance. Recently, Isotek has been preparing to receive, handle and store up to 12 traps containing uranium-233 hexafluoride to support removal of fuel from tanks at the Molten Salt Reactor Experiment at ORNL. This fissile material handling campaign is expected to start by late-October and involves receipt of the traps (in an overpack and shielded carrier) at Building 3019, movement for weighing, and placement in storage. While other fissile material movements have been performed within the past year, the last trap movement was in July 2006. Following discussion with DOE-ORO management, Isotek has proposed a contractor Readiness Assessment (RA) to confirm readiness for this campaign. The RA is planned to start in early-September.

D. Building 9212. This week, the site reps walked down the Building 9212 E-Wing basement area with the facility operations manager. BWXT has made considerable progress in the last few months in repair to leaking utility lines and overall housekeeping.