DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending December 20, 2013

Building 9204-2E: This week, a remotely-operated chain hoist failed during a quality evaluation operation in a glovebox in Building 9204-2E. Workers were raising a 200 lb. fixture using the 1 ton-rated hoist when the hoist failed, allowing the fixture to fall several feet and contact the bottom of the glovebox. The fixture came to rest in a suspended position a few inches above the bottom of the glovebox. No workers were injured during the event. Maintenance personnel plan to evaluate the hoist to determine the cause of the failure. No other hoist operations have been suspended as a result of this event.

Assembly/Quality Evaluation Production (A/QEP) personnel successfully executed the procedure to inspect two of the legacy chip dolly cylinders that contain uranium chips with no defined disposition path (see 11/15/13 report). The purpose of the inspection was to ensure that the cylinders contained enough solvent to prevent chip oxidation. Prior to the inspection, workers applied an epoxy material to an area around the base of one of the cylinders that appeared to be weeping small amounts of fluid. The inspection revealed that the chips in one of the cylinders—the one that showed no indications of weeping—were not fully covered. However, there was no indication that the uncovered chips had oxidized and there were no signs of rapid oxidation during the inspection. Workers added solvent to this cylinder and returned the dolly to its storage location. A/QEP personnel will continue to inspect these cylinders periodically until a disposition path can be established. For this operation, A/QEP personnel removed combustibles from the inspection area and staged firefighters nearby in the unlikely event that rapid chip oxidation would have led to a small fire.

Building 9215: B&W held a fact-finding meeting this week to investigate an event in which workers installed a 480-volt breaker on an energized bus without the required controls in place. The intended scope of work for the activity was for two electricians to move several breakers from a loading dock to the floor of a switchgear room in Building 9215. After the move was completed, one of the electricians, without authorization, inserted a 480-volt breaker in its cabinet instead of placing it on the floor. A Building 9215 Shift Manager and the electrician were both present during the final action to engage the breaker with the energized bus. The actions to place the breaker in the cabinet and engage it would normally be a planned and controlled evolution governed by procedures that require specific personal protective clothing. B&W management identified a number of issues associated with this event, including: the electrician performing work outside the planned scope of work, the electrician failing to follow safety controls associated working near energized components, and the Shift Manager failing to stop unauthorized and unsafe work from occurring.

Building 9212: Engineering personnel believe they have located a leak in the primary confinement barrier inside the vaporizer enclosure at the Oxide Conversion Facility. Engineering personnel were able to trace the leak to a valve downstream of the vaporizer by performing a system-wide helium leak check. Maintenance personnel are preparing a work instruction to remove the valve and send it to technology development for inspection.