

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Acting Technical Director  
FROM: William Linzau and Rory Rauch, Site Representatives  
SUBJECT: Oak Ridge Activity Report for Week Ending October 4, 2013

**Oxide Conversion Facility (OCF):** B&W resumed hydrofluorination bed operations at OCF this week. Approximately 30 minutes after operators initiated the flow of HF to the bed, the hydrogen fluoride (HF) detectors in the vaporizer enclosure alarmed. The enclosure is credited in the Building 9212 safety analysis report as a safety-significant secondary confinement barrier and there was no indication of HF release to the atmosphere. Following last August's event in which the HF detectors in the vaporizer enclosure alarmed (see 8/9/13 report), B&W conducted several leak tests in attempts to locate a leak, but none were found (see 9/27/13 report). B&W postulated that the alarms in August were caused by the migration of HF vapor into the enclosure through common vent piping soon after startup of the dock scrubber system. During this week's event, the detectors inside the vaporizer enclosure alarmed well after the startup of the dock scrubber system. B&W plans to re-evaluate OCF systems and the conditions surrounding these recent events prior to developing a path forward.

**Building 9212:** Last week, chemical operators suspended an operation to transfer molten aluminum nitrate (MAN) to Building 9212 because they discovered that they were working to the wrong revision of the procedure. The supervisor in Building 9212 had verified the procedure revision earlier in the week, but was not notified of a subsequent change. Normally, responsible line managers are automatically notified of procedure changes through an email generated by Y-12's document management system. The MAN transfer procedure is unique in that it governs actions from two separate organizations. In this case, one organization's responsible manager did not receive a notification of the procedure change. B&W is evaluating the procedure change control process for possible improvements.

Construction personnel are continuing to install the support equipment for the new dust collection system that will replace the E-Wing exhaust ventilation system (Stack 110) baghouse. Recently, construction personnel observed excessive vibration during operation of a new exhaust fan. Completion of the installation of the exhaust fan has been delayed in order to allow personnel to make vendor-recommended adjustments to reduce the vibration. In addition, three portable HEPA filtration units have been temporarily attached to ventilation ducting supporting E-wing. These units were installed to aid with contamination control by providing negative suction at the hoods when the existing fans are shut down to install the new equipment. Backflow of contamination into E-wing has been a problem when fans have to be secured to conduct these system modifications (see 9/6/13 report).

**Work Planning & Control (WP&C):** Last month, B&W's Nuclear Safety Operations (NSO) organization completed an informal review of WP&C improvement efforts in the Facilities, Infrastructure, and Services organization. Overall, the results of the review indicated that WP&C documents and processes provide satisfactory work instructions and hazard control integration. Reviewers identified areas deserving management attention which were largely consistent with previous NSO observations. One of the areas needing additional attention was the work planning walkdown process. The NSO report notes the lack of a formal method and standard product in the walkdown process continues to reduce its effectiveness and increases the risk of improperly scoping the work or not identifying all hazards.