

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 July 5, 2013

Work Planning and Control: Late last week, B&W conducted a fact finding meeting to investigate how a maintenance craft worker received minor skin contamination while repairing steam piping in Building 9998. The steam line was in a sump below a walkway grating and the worker had to crouch down in the sump to access the piping. The skin contamination occurred when the worker's head brushed against a grating support. Radiological control (RADCON) technicians were able to successfully decontaminate the worker's head. The fact finding meeting revealed several weaknesses in work planning and control implementation. First, job-specific hazards were not assessed. The sump had collected dirt and debris over many years resulting in about six inches of mud in the work area, but no chemical characterization of the mud was performed. Further, radiological surveys of the conditions below the grating were not performed. Second, the radiological work permit did not address the need to access tight spaces and failed to require a hood to protect the worker's head from contamination. Finally, the planning for this job initially began last September, which appears to have contributed to a lack of coordination between the supervisor, workers, and representatives from applicable safety disciplines. Last month, management of the RADCON organization commenced implementation of an action plan to address these types of weaknesses (see 6/14/13 report).

Oxide Conversion Facility (OCF): B&W has addressed the issues affecting the functionality of the safety-significant programmable logic controller (PLC) that supports OCF operations (see 5/31/13 report). Several weeks ago, instrumentation and control (I&C) engineers determined that the issue was caused by foreign material on some resistor-capacitor circuits in an interface card. Personnel in the development organization cleaned these circuits using detailed task-specific work instructions prepared by responsible engineers. Two weeks ago, the I&C engineers reinstalled the component containing the affected circuits, but the system would not complete its initial startup and synchronization sequence. After consultation with the vendor, the I&C engineers determined that removing power to the PLC while the problematic circuits were being cleaned created latent software errors that prevented the PLC's processors from synchronizing. Last week, the I&C engineers reinstalled the system software and the PLC processors synchronized. B&W plans to return OCF to operation after completing a scheduled round of quarterly surveillances.

Technical Procedures: Last week, B&W's Vice President for Production issued a standing order that provides direction for the disposition of production-owned procedures that have not received a periodic review within the time frame prescribed by B&W's technical procedure process (see 6/21/13 report). Production personnel have performed a cursory evaluation of these procedures and determined that many are either assigned to the wrong responsible manager or are legacy procedures that need to be removed from the document management system. Therefore, the standing order directs the production procedures manager to assign the correct responsible manager (and alternate) in the document management system by July 11, 2013. The assigned responsible manager must bring the procedure into compliance by August 1, 2013.