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 March 28, 2014

Radiological Control (RADCON): Two B&W workers inadvertently entered an airborne radioactivity area (ARA) without the required respiratory protection. The workers were walking down areas in Building 9215, and entered an area that had been recently up-posted because of activities that may cause airborne radiological contamination. The area had been roped off and signs had been posted indicating that respiratory protection was required for access, but the ropes and stanchions did not fully span the area entryway. This event marks the fourth time in the past year in which workers inadvertently entered an ARA without the required respiratory protection (see 5/10/13, 5/24/13, and 1/17/14 reports). B&W management has included actions to address this trend in a recently issued RADCON Improvement Plan (RCIP).

The RCIP is part of a B&W key initiative to improve its radiological protection program. In June 2013, B&W started a focused campaign designed to strengthen worker compliance through communication of management's behavioral expectations (see 6/14/13 report). The RCIP states that, while some improvements resulted from these efforts, additional measures are needed to provide a "step change" improvement in the basic fundamentals of radiological worker performance at Y-12. The RCIP is more comprehensive than the previous effort in that it covers multiple programmatic areas with a focus on improving performance in the field. The actions include increased management observation of RADCON activities through senior supervisory watches, management assessments, and scheduled surveillances by RADCON supervisors and engineers. The RCIP also has an action to establish a RADCON Corrective Actions Review Board to formally review and address negative trends and field observations. The plan has actions to address weaknesses in radiological work controls and compliance with postings, such as the one noted above, and includes an evaluation of methods to make radiological barriers more visible to workers in instances when conditions have changed.

Building 9212: The Building 9212 safety basis establishes mass limits on certain hazardous materials. To ensure that these "Safety Basis Materials of Concern" (SBMOCs) are maintained below prescribed limits, B&W procedures establish a formal process by which the Operations Manager (or designee) is notified of, reviews, and authorizes planned SBMOC shipments. This week, a Building 9212 shift technical advisor (STA) found that engineering personnel had transferred lead shielding blankets to Building 9212 without authorization from the Operations Manager. The STA subsequently evaluated the quantity of lead metal (an SBMOC) in the facility and found it to be well below prescribed limits. The fact-finding meeting for the event revealed that members of this engineering department were not aware of the process for authorizing SBMOC transfers. In addition to providing training to the subject department, B&W plans to conduct an extent-of-condition review to identify any other organizational training gaps relative to the SBMOC authorization to transfer process.

Oxide Conversion Facility (OCF): Enriched Uranium Production (EUP) personnel continue to progress in their efforts to resume operations at OCF. Last week, crafts personnel replaced the valve stem assembly that system engineers believe was the source of a leak in the primary confinement barrier of the vaporizer enclosure (see 12/20/13 report). The system subsequently passed a helium leak check and pressure decay test. This week, operators successfully received and installed a new cylinder of hydrogen fluoride. Operators must now complete a small set of surveillances before OCF can return to operation. EUP management is planning to resume operations the week of April 7.