

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 June 14, 2013

Consolidated Edison Uranium Solidification Project (CEUSP): Isotek Systems, LLC, successfully disengaged the grapple from a CEUSP canister (see 6/7/13 report). The work was accomplished by repositioning the grapple to a location near the top of the shielded transfer carrier (STC) while keeping the canister lower in the STC to maintain shielding. The grapple was partially disassembled to allow manual operation of the drive mechanism that disengages the grapple. The cause of the malfunction was a set screw that had partially unthreaded and prevented rotation of the mechanism. Initial indications of the total exposure are less than half of the estimates from the planning reviews. No damage to the canister was noted.

Uranium Processing Facility (UPF): B&W's UPF Project Team has developed a Technology Risk Reduction Plan to reduce the risk that new or existing technologies will be delayed or fail to work when deployed in the UPF. To date, the project focused on following DOE guidance to achieve Technology Readiness Level 6 before critical decision 2, but the Federal Project Director requested that additional actions be taken to reduce risk and improve the likelihood of successful startup of these technologies in the UPF. The plan describes risk reduction strategies, which include: additional research and development, leveraging technologies that are scheduled to be used in existing Y-12 facilities (the example provided is the calciner), and purchasing UPF test units.

Radiological Control (RADCON): The B&W Director of the RADCON organization sent a memorandum to all RADCON personnel that provided expectations of performance and is an initial step to address recently revealed weaknesses (see 5/3/13, 5/10/13, and 5/24/13 reports). The memorandum lists several expected practices, which include: interacting frequently with the work teams using face-to-face communications as practical; communicating and correcting observed bad practices; and exhibiting teamwork and mutual respect within the RADCON organization and with other site organizations. B&W management indicated that one of their objectives is to have RADCON personnel actively helping to ensure workers follow good RADCON practices and stay compliant with requirements. A performance improvement plan is nearing completion that should also include improvements to training and involvement of all operations organizations.

Aging Infrastructure: Last week, a 10-inch potable water supply pipe ruptured east of Building 9207. The Potable Water System (PWS) feeds all of the fire suppression systems at Y-12, but supply was not impacted during this event because pumps were able to maintain adequate level in the water towers. The pipe failure occurred Friday night, but the realization that a break had occurred did not happen until Saturday morning. The delay in recognition can be partially attributed to the isolated location of the sub-surface break, most site personnel being gone for the weekend, and water towers being refilled. The delay resulted in roughly six million gallons of potable water discharging into the local creek. The B&W Utilities and Environmental Compliance organizations both had indications of an abnormal condition, but B&W had not proceduralized a response to these indications. The break was discovered because a diligent system engineer decided to come back in to the site and check on an anomalous report of a low level in a water tower that had cleared as the pumps refilled the tank. B&W management is evaluating ways to improve recognition of a problem from the available indications during off hours. A similar pipe break occurred in September 2012 (see 9/14/12 and 1/25/13 reports).