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 18, 2013

Y-12 Operations: B&W halted activities that were underway to place Y-12 in a minimum staffing condition following the allocation of funding for fiscal year 2014. B&W is developing a restoration plan to guide the orderly resumption of operations.

Work Planning & Control (WP&C): Facilities, Infrastructure and Services (FI&S) management recently issued a Conduct of Maintenance Monitoring and Improvement Action Plan. The plan represents a compilation of more mature WP&C performance improvement actions and some newer actions to improve overall maintenance program performance. The plan includes the following key actions:

- The implementation of an 8-Week Rolling Window Planning and Scheduling (RWPS) process that is intended to improve work scheduling performance and in turn reduce the prevalence of time-sensitive work requests, which can strain WP&C processes. Two facilities, Buildings 9204-2 and 9204-2E, are currently piloting the RWPS process.
- The establishment of a requirement for all disciplines (e.g., crafts, radiological control, industrial hygiene) involved in the work activity to be present for a coordinated walkdown. This action was taken in response to the recent Nuclear Safety Operations organization's observation that work planning walkdowns lack formality (see 10/4/13 report).
- An evaluation of potential organizational changes to matrix certain Environment, Safety & Health subject matter experts to the FI&S organization, which is intended to better foster a team-based approach to work planning.
- The formation of a task team to review the job hazard analysis development process.
- The continuation of efforts to improve planner effectiveness through training and mentoring.
- The establishment of defined focus areas for Senior Management Watches.

Highly Enriched Uranium Materials Storage Facility (HEUMF): This week, the safety-significant power distribution system at HEUMF failed a technical safety requirement (TSR)-level surveillance requirement. This particular surveillance requirement specifies an annual load test to ensure that the uninterruptible power supply (UPS) batteries will operate for 60 minutes. The batteries failed 58 minutes into the test. Following the test failure, members of the HEUMF Operations Manager's staff researched the UPS system's testing and maintenance history. They found that a 2007 Reliability Centered Maintenance (RCM) analysis of the HEUMF power distribution system had derived a task to replace the UPS batteries every two years, but this task had never been implemented. RCM analysis is one of the most rigorous elements of the Y-12 proactive maintenance program. It is intended to derive a set of cost-effective, defense-in-depth (i.e., non-TSR) maintenance activities to combat identified system failure modes. To date, B&W has primarily performed RCM analyses for newer systems, such as those at HEUMF, but may consider performing these analyses on systems in older facilities (e.g., Buildings 9204-2E or 9215) if it is determined that the remaining mission life of the system warrants the investment. Maintenance Engineering personnel plan to perform a sitewide extent-of-condition review to identify any other instances in which RCM tasks were not implemented. They also plan to review the process for implementing RCM-derived tasks to prevent recurrence of this issue.