

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy Dwyer, Technical Director
FROM: Wayne Andrews and David Kupferer, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending September 23, 2011

Conduct of Operations. This week, B&W issued a comprehensive Performance Improvement Plan for improving conduct of operations (see the 7/29/11 report). B&W's plan identifies numerous improvement actions including the following:

- Revise the Conduct of Operations Manual to require that operators use a place keeping method during execution of 'continuous-use' procedures. B&W plans to issue the revised manual next month.
- Develop and implement recurring, hands-on training focused on emphasizing expectations for conduct of operations. B&W has scheduled the first training class for next month.
- Develop and implement a Senior Supervisor Watch (SSW) program for highly qualified managers to provide routine feedback on conduct of operations. B&W issued its SSW program this week and is planning to fully implement the program by January.
- Upgrade production procedures to (a) reduce precautions and limitations, (b) improve notes, warnings, and cautions, (c) incorporate implementation of controls into specific procedure steps, (d) develop and implement consistent definitions of terms such as "as needed" and "as necessary," and (e) evaluate branching and sequencing in procedures. B&W plans to initiate this effort in November.
- Revise the Procedure Modification Request (PMR) process with the goal of reducing the backlog of PMRs (see the 7/16/10 report). B&W plans to complete this initiative by March.
- Evaluate formalizing the minimum time process engineers are required to observe operations and procedure usage. B&W expects to complete this evaluation in November.
- Formalize the requirements for identification of use of Subject Matter Experts. B&W plans to issue this guidance next year.

Safety Analysis. NNSA's Nuclear Safety Support Division performed a review of B&W's safety basis program at Y-12 this week. The scope of the review included evaluating B&W's procedures governing development, implementation, and maintenance of safety basis documents (e.g., Documented Safety Analyses, Unreviewed Safety Question Determinations, etc.). In general, the review team concluded that B&W's programs and procedures meet applicable DOE requirements. The review team recommended that B&W reevaluate its implementation of periodic Implementation Validation Reviews (see the 11/30/07 report).

Dismantlement Operations. Last week, B&W issued its investigation report on the event involving a weapon component being dropped during dismantlement operations (see the 8/12/11 report). The review team determined that the likely cause of the drop was that the component shifted slightly during the lift, which reduced the clamping force of the lifting system on the component due to a reduction in both the gripping force and the coefficient of friction (i.e., dynamic versus static coefficients of friction). The review team's conclusions included that (a) all elements of the lifting system had been properly inspected and (b) the pre-job briefing and performance of the activity conformed to applicable site requirements and expectations. The review team recommended that the following actions be taken: (a) procedurally require at least 16.5 foot-pounds to be applied during installation of the lifting assembly and (b) evaluate and recommend methods to ensure that the lifting assembly is installed such that the load will not shift within the assembly during hoisting operations.