

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 8, 2008

TO: Timothy Dwyer, Technical Director
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending August 8, 2008

Staff member T. Hunt was at Y-12 to augment site rep. coverage.

Conduct of Operations: This week, the staff and site reps. observed several operations in the Assembly/Disassembly Building including Dismantlement, Quality Evaluation, and Assembly. Per the Y-12 Conduct of Operations Manual, expectations for the use of technical procedures (e.g., procedures in hand, checking off procedure steps, reader-worker, etc.) are at the discretion of the production supervisors. These expectations are disseminated verbally and vary depending on the specific operation, workers, and supervisor. The staff and site reps. had the following observations:

Dismantlement – The procedures were generally sitting on cabinets nearby the operations and available to the workers for reference if needed. The workers referenced the procedures infrequently. Components were often exchanged between workers and work stations mid-procedure without formal procedural turnover.

Quality Evaluation – Several workers were observed performing different sections of the procedure simultaneously, although a provision for this was not provided in the procedure. Again, the procedures were kept nearby for reference if needed, but were referenced much more frequently than during Dismantlement operations.

Assembly - The pre-job brief was well executed. Operations were performed in a large environmental room by one worker while a second worker outside the room read the procedure over a headset communication system. Reader-worker procedure use is not required. For one crew, most of the procedural steps were not read verbatim; rather, they were severely truncated or paraphrased.

The site reps. and staff believe the observed procedure use practices could lead to imprecise execution of the procedures. The site reps. and staff shared the above observations with both YSO and B&W senior management. B&W committed to evaluate procedure use expectations and identify opportunities for improvement.

Work Control: As reported last week, deficient post-maintenance testing on the Criticality Accident Alarm System (CAAS) in the Assembly/Disassembly Building resulted in a Technical Safety Requirement violation. The testing did not physically test CAAS annunciation capability and the facility should not have declared the system operable and exited the Limiting Condition for Operation. The system engineer for the CAAS was not consulted in determining the post-maintenance test (a few days later he identified the deficient testing). In a follow-up critique this week, B&W determined that the maintenance and testing had been declared by the Plant Shift Superintendent to be “emergency work.” An emergency work declaration allows for a streamlined work planning protocol to be followed compared with other categories of work. B&W is to evaluate whether this declaration was proper given the Y-12 work control manual stipulation that emergency work is for preventing serious personal injury, environmental or security impacts. At the end of the critique, the site rep. questioned what requirements applied to determining post-maintenance testing for emergency work. B&W then determined that the emergency work protocol allows only the job supervisor to determine the necessary post-maintenance testing, even for nuclear safety systems. As a result, B&W is to evaluate whether changes are warranted to the emergency work protocol.