

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 15, 2008

TO: Timothy Dwyer, Technical Director
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives
SUBJECT: Activity Report for Week Ending August 15, 2008

Conduct of Operations/Criticality Safety: In preparation for a transfer of containers with enriched uranium from one facility to another, a check of compliance with the receiving facility criticality safety requirements is performed. While performing such a check this week for a transfer of metal cans from the Machining Building to the Assembly/Disassembly Building, operations personnel identified that the metal cans with enriched uranium parts were not permitted by the criticality safety requirements for the Assembly/Disassembly Building. The transfer was appropriately suspended. In follow-up, however, B&W determined that multiple transfers of such metal cans to the Assembly/Disassembly Building had occurred between 2006 and early 2008. During the critique addressing the prior non-compliant transfers, B&W determined that an issue of the prohibited metal cans in storage had been raised in January 2008. No formal on-the-floor declaration of a criticality safety deficiency per Y-12 site requirements (termed "back-off") was invoked; rather, the issue at the time appears to have been addressed only by an informal E-mail between Nuclear Criticality Safety personnel and facility shift management personnel. No follow through or resolution of the January issue (as would result from a formal back-off) was evident. B&W plans further evaluation and causal analysis.

Uranium Processing Facility (UPF): Partly based on comments received from the Board's staff, YSO recently directed B&W to review UPF Design Criteria to ensure that standards or requirements were not omitted or inadvertently removed from the Design Criteria. B&W is expected to submit a review plan to YSO next week.

Conduct of Operations: This week, B&W suspended weapon component assembly operations. An error was encountered during the operations as a direct result of operator use of an informal, hand-written crib sheet. The crib sheet was being used to list the size of the parts, which were copied from a weapon specification sheet that was for a different weapon unit. The crib sheet was referred to during the operation rather than the formal specification. A contributing factor was that work control processes allow the operator to handle several specification sheets for different weapon builds as opposed to requiring handling of only the specification sheets for the specific unit being assembled. These operations remain suspended and evaluation of this event is in progress.

W76-1 First Production Unit: Last week, B&W completed production of its first major component assembly to support the W76-1 Life Extension Program.

Nuclear Facility Clean-up: Last week, B&W organized and effectively executed a two-day clean-up effort in Building 9212. Numerous truck loads of excess materials were removed from the facility including 44 large boxes containing low-level radioactive waste. Several organizations supported this effort including Radiological Control, Industrial Hygiene, Waste Management, Maintenance, and Security. B&W is planning to conduct similar efforts in the next few months at Building 9215.