

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 February 25, 2011

Highly Enriched Uranium Materials Facility (HEUMF). Earlier this month, B&W submitted a safety basis supplement for the HEUMF Documented Safety Analysis to YSO for approval. The purpose of the supplement is to enable B&W to reprogram the programmable logic controller (PLC) associated with the Secondary Confinement System (SCS) without being forced to suspend operations in HEUMF for an extended period of time (see the 1/28/11 report). The Technical Safety Requirements (TSRs) for HEUMF currently state the following:

- if both the SCS and the fire protection system (FPS) are inoperable, the facility must be put into a warm standby mode (i.e., operations must be suspended)
- the facility cannot transition from the warm standby mode to the operational mode unless all of the safety systems are operational (including both the SCS and FPS)

There is a weekly surveillance on the diesel fire pump, during which time the FPS is inoperable. Reprogramming and testing the PLC is expected to take several weeks, during which time the SCS will be inoperable. Therefore, as currently written, the TSRs would lead B&W to put HEUMF into a warm standby mode (i.e., suspend operations) for an extended period of time while reprogramming the PLC. The safety basis supplement allows the facility to stay in the operations mode while simultaneously reprogramming the PLC and performing maintenance of the diesel fire pump. Compensatory actions identified in the supplement include verifying that the electric fire pump is available and on normal power prior to performing the diesel fire pump surveillance and limiting the surveillance activity to 10 hours.

Safety Systems/Documented Safety Analysis (DSA). A seismic switch in the Oxide Conversion Facility (OCF) is credited by the DSA for Building 9212 to isolate the supply of hydrogen and hydrogen fluoride to OCF and to shut off heaters in OCF subsequent to a seismic event (see reports 7/16/10 and 12/10/10). A number of months ago B&W revised the surveillance procedure and upon executing it determined that one of the three accelerometers was inoperable. They then entered the appropriate Limiting Condition of Operation and suspended OCF operations. Subsequently, B&W identified this event as a Potential Inadequacy in the Safety Analysis (PISA). B&W then developed a Justification for Continued Operation (JCO) which incorporated another surveillance procedure and submitted the JCO to YSO for approval. In the YSO response dated February 22, 2011, they stated that, "Since no safety basis changes are involved with this procedural change in testing method, YSO approval of the change is deemed unnecessary." The logic here was that this was simply a surveillance procedure change and was not a change in the DSA and thus did not require YSO approval.

Complex Command Center (CCC) Project. YSO recently informed NNSA headquarters that it plans to revise its acquisition strategy for a new CCC (see the 1/29/10 report). Specifically, due to concerns raised this month by the DOE's Office of Engineering and Construction Management regarding use of third-party financing to construct the CCC, YSO concluded that its current acquisition strategy is no longer viable. YSO plans to evaluate other financing alternatives including traditional line-item project financing.