

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 6, 2009

TO: Timothy Dwyer, Technical Director  
FROM: Donald Owen and David Kupferer, Oak Ridge Site Representatives  
SUBJECT: Activity Report for Week Ending March 6, 2009

Staff member D. Winters visited Oak Ridge to review Transuranic Waste Processing Center operations and other Environmental Management projects.

**Transuranic Waste Processing Center (TWPC).** The site reps. and staff observed transuranic waste processing operations including contact-handled and remote-handled (RH) waste operations. The first shipment of processed RH waste from the TWPC occurred late last week. Since mid-2007, EnergX has been planning to establish a capability to vent waste drums at the TWPC (see the 12/5/08 and 10/19/07 site rep. reports). This new venting capability is for several hundred waste drums where an inner and an outer drum need to be vented. In January, EnergX raised questions on the adequacy of the venting enclosure to confine a drum deflagration event. Specifically, EnergX questioned whether there is adequate protection of the enclosure's High Efficiency Particulate Air (HEPA) filters. Design changes to the enclosure are being developed to protect the HEPA filters from a deflagration environment. As a result, contractor and DOE Operational Readiness Reviews for startup of the venting campaign has been delayed until at least summer 2009.

TWPC operations have been largely conducted on a single-shift basis. Plans had been in place to go to two-shift operations sometime in 2010, but those plans have been accelerated to July 2009 due to a recent increase in funding from the federal American Recovery and Reinvestment Act. EnergX plans to hire new personnel for the second shift on an expedited basis. EnergX management discussed actions to ensure that new personnel are properly trained and qualified and that proper, disciplined nuclear operations are reinforced during this transition.

**Criticality Safety.** YSO and B&W held a quarterly senior management meeting discussing progress in implementing nuclear criticality safety improvements including the following:

- B&W submitted its first Criticality Safety Evaluation (CSE) that is compliant with the requirements of DOE-STD-3007-2007, *Preparing Criticality Safety Evaluations*.
- B&W issued a Standard Review Plan for CSEs to comply with DOE-STD-3007-2007.
- B&W is resolving the extensive comments YSO generated on recently revised Highly Enriched Uranium Materials Facility (HEUMF) CSEs (see the 2/20/09 site rep. report).
- B&W is addressing concerns identified by YSO and an independent criticality safety expert regarding the criticality accident alarm detector response calculation for the HEUMF (see the 1/2/09 site rep. report).

**Warehouse Characterization Activity.** As part of efforts to transfer materials from the Warehouse, B&W has been characterizing a number of uranium metal items that might be contaminated with plutonium (see the 9/5/08 site rep. report). The first phase involved using a temporary glovebag for items that were stored in unsealed lockboxes. The second phase was to process items that were stored in sealed containers. This phase was begun last September using a temporary glovebox having a chamber with an inert environment to unpack the items. The characterization campaign was recently completed and no plutonium contamination was found.