

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 June 1, 2012

Uranium Processing Facility (UPF). DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, requires that DOE perform a Technical Independent Project Review (TIPR) at or near the completion of the preliminary design for major projects to ensure that safety is effectively integrated into design. The Order states that the TIPR must ensure that safety documentation is complete, accurate, and reliable for entry into the next phase of the project. Two weeks ago, the Deputy Administrator for Defense Programs (NA-10) requested for the Associate Administrator for Acquisition and Project Management (NA-APM) to conduct a Technical Independent Project Review (TIPR) of the UPF during the week of June 18th (see the 4/6/12 report). The stated purpose of this review is to assess the UPF project's processes and performance in (a) effectively integrating safety into the design of UPF, (b) maturing and deploying new process technologies, and (c) verifying completeness and accuracy of the design leading to 90 percent design maturity by September 2012. NA-10 also requested that the review team evaluate the project team's (a) progress and ability to achieve Critical Decision-2, *Performance Baseline*, by September 30, 2013 and (b) progress in addressing recommendations from prior reviews. B&W expects to re-submit the Preliminary Safety Design Report (PSDR) to YSO this August (see the 3/2/12 report).

ORNL Building 3019/Uranium-233 (U-233) Disposition. Isotek continues to make progress in its efforts to disposition U-233 from Building 3019 (see the 2/3/12 report).

- Approximately 85% of the Zero Power Reactor (ZPR) fuel plate shipments to the Nevada National Security Site (NNSS) have been completed. Isotek expects to complete its ZPR disposition campaign this month.
- In August, Isotek expects to transfer nine canisters of low-gram quantity, high-purity U-233 to UT-Battelle to be used for research purposes.
- In January 2013, Isotek anticipates initiating shipments of Consolidated Edison Uranium Solidification Program (CEUSP) material to NNSS for disposal.
- Project personnel expect to finalize their alternatives analysis for the final phase of the U-233 disposition effort later this month; this phase will involve additional processing of the remaining U-233 materials that cannot be disposed of directly.

Fire Protection. In March, B&W declared all of the safety-significant dry pipe suppression systems inoperable (two associated with Building 9215 and two associated with Building 9212) after discovering significant degradation in some sections of these systems (see the 3/30/12 report). B&W entered the appropriate Limiting Conditions of Operation (LCOs) and developed Justifications for Continued Operations (JCOs), which were subsequently approved by YSO (see the 4/6/12 and 4/20/12 reports). Last week, B&W completed repairs on all four of these systems and exited the applicable LCOs. B&W is developing a five-year obstruction surveillance which will be added to the Technical Safety Requirements (TSRs) for Buildings 9212 and 9215 and plans to evaluate the adequacy of the surveillance requirements defined in the TSRs associated with all of its safety-significant and safety-class wet-pipe fire suppression systems.

Operational Drills. This week, the Site Representatives observed an operational drill in Building 9204-2E (see the 4/29/11 report). The drill scenario involved a medical emergency while operators were preparing to enter the environmental room. B&W expects to issue its report within the next few weeks, which will identify lessons learned and opportunities for improvement.