

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending May 16, 2014

R. Rauch was out of the office this week.

Transuranic Waste Processing Center (TWPC): The site rep met with personnel from the Oak Ridge Office of Environmental Management and the TWPC contractor, Wastren Advantage, Inc. (WAI), to discuss the storage of remote-handled (RH) transuranic (TRU) waste (see 4/25/14 report). The facility's processes for preparing RH drums for shipment were designed with the expectation that shipments would occur as the drums were certified, resulting in limited need for storage. Currently, RH drums are being stored in the hot cell of the main process building and in an adjacent shielded canister storage area. The hot cell is nearing its physical space limit but is far from criticality or radiological control limits. Facility management anticipates that the canister storage area has sufficient space to allow continued processing of RH waste for the next year and they are working on plans to construct additional storage areas outside the process building if required.

Oak Ridge National Laboratory (ORNL): URS/CH2M Oak Ridge (UCOR), the contractor for the Melton Valley Closure Project, declared a potential inadequacy in the safety analysis (PISA) based on new information indicating that certain stored drums have a potential for a detonation event versus a deflagration event assumed in the Documented Safety Analysis (DSA). The new information was from an analysis sponsored by WAI at TWPC to support the update of its DSA in preparation for a project to process these drums later this year (see 2/21/14 report).

Building 9215: The Operations Manager declared a PISA due to an error discovered in the Building 9215 seismic analysis. Facility maintenance personnel were planning a modification to the HVAC system in part of Building 9215 that would require that a small hole be created in a credited exterior wall. During the review of the change package by B&W Engineering, they found that the seismic calculation incorrectly used the physical properties of concrete masonry blocks and not the properties for the hollow clay tiles that comprise the material of construction for the wall. Engineering personnel are evaluating the overall effect of this discrepancy on the seismic analysis, but based on their initial review, they anticipate the effect will be minimal.

Building 9201-5: Y-12 Fire Department (FD) personnel implemented actions to isolate multiple fire suppression systems in Building 9201-5 based on the recently completed Transitional Fire Hazard Analysis (see 5/2/14 report). After they completed the actions to isolate the other suppression systems, the Fire Department personnel attempted to verify the two remaining systems were in operation but discovered that no water was supplied. The FD personnel contacted Utilities personnel to verify potable water supply valves were open, but one of the valves was closed. Further investigations revealed that the supply valve was closed during the severe weather event in early January in which potable water piping (not connected to a fire suppression system) inside the facility had ruptured due to freezing temperatures.

Safety Culture: Late last year, B&W conducted a self-assessment of the nuclear safety culture at Y-12 and the results were captured in an evaluation report issued in late January 2014. B&W senior management directed Y-12's Nuclear Safety Culture Monitoring Panel to prepare an improvement plan, which was recently completed. The improvement plan has 85 specific actions and 15 of the actions have been completed, 25 are scheduled for completion by the end of this fiscal year, and the completion dates for the remainder of the activities extend through 2015.