

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 11, 2015

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending December 11, 2015

R. Oberreuter and A. Powers were at Y-12 to attend a depleted uranium program summit and to discuss the Building 9212 Calciner project with contractor personnel. T. Battaglia, B. Broderick, P. Meyer, and S. Sircar were in Oak Ridge for a review of the Waste Isolation Pilot Plant documented safety analysis.

Fire Protection: CNS recently identified two instances in which Fire Protection Operations (FPO) personnel had not been performing required fire patrols for fire suppression systems supporting Building 9202 (Technology Development) and Building 9998 (part of the Building 9215 Complex). FPO should have instituted both fire patrols after disabling notification alarms on each system, per procedure. In the case of the Building 9202 system, FPO personnel performed fire patrols for a few days following the impairment of a pressure switch alarm, but the patrols ceased after an Alarm Room Officer (ARO) inadvertently deleted the patrol from the fire patrol log while attempting to add a new entry. For the Building 9998 system, the fire patrol was never initiated. It appears in this instance that an ARO misread the log and mistakenly believed that the required fire patrol had already been captured. FPO procedures require the outage and impairment coordinator to review the FPO fire patrol listings and compensatory measure matrix weekly to ensure all compensatory measures are implemented and performed. This weekly verification—a means of protecting against the increased potential for error due to the administrative nature of the fire protection compensatory measure tracking process—was not being performed. Of note, the subject fire patrols are elements of the sitewide fire protection safety management program, though neither system is credited in the technical safety requirements. These issues mark the third and fourth instance in the last year in which CNS failed to execute fire patrols following fire suppression system impairments, per procedure (see 5/15/15 and 12/12/14 reports). FPO management plans to take action to evaluate and improve the process for implementing fire protection program compensatory measures.

Building 9204-2E: Last month, a work crew was moving a heavy piece of quality testing equipment and had to pause work when the chain hoist they were using locked and ceased operating. This hoist, which is rated for loads up to 1000 pounds, has an internal mechanism that prevents operation when overloaded. The crew was able to lift the equipment several inches before the load slightly shifted and the hoist locked and prevented further upward movement. During work planning for the hoist activity, the System Engineer provided that the equipment weighed approximately 1000 pounds and that this equipment was installed approximately six years ago using the same chain hoist. After initial recover actions were completed, work crews weighed the piece of equipment and found that it weighed 1700 pounds. During the fact-finding meeting for the event, contractor participants reported that the vendor's manual also provided a weight of 1000 pounds for this piece of equipment. Planned corrective actions from the fact-finding meeting included an evaluation to understand why the weight in the manual was significantly different than the actual weight of the equipment and an action to mark the test equipment with its actual weight to prevent future confusion.