

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 January 16, 2015

Conduct of Operations/Job Hazard Analyses (JHAs): CNS recently identified three instances in which Production operations continued after the JHA supporting the operation had expired. The first instance involved the JHA supporting general fissile material handling operations in Building 9212. The JHA had expired on December 31, 2014, and the responsible supervisor identified the issue while preparing for the shift briefing on January 7, 2015. The operations covered by this JHA were performed for at least one day prior to the discovery of its expiration. CNS management is following up on a site rep question regarding whether the expired JHA should have been identified as part of that day's shift briefing. The second instance involved the JHA for an operation in Building 9204-2E. This JHA expired in October 2013 and its custodian identified the issue earlier this week. The fact-finding meeting for the issue revealed several process barriers and dedicated reviews that failed to identify the problem. These include two management-directed reviews to check for expired JHAs and the area supervisors' repeated failure to verify that the applicable JHA was current and approved as part of the pre-job briefings during this time period, per Production requirements. The third instance involved the JHA for an operation in Building 9201-5N. CNS identified this issue as part of the extent-of-condition review from the prior two issues. CNS management has scheduled a critique to evaluate these events further. In October 2012, B&W personnel discovered a similar issue (see 10/19/12 report). The site reps asked CNS management to consider reviewing the corrective actions from this event to understand why they failed to prevent recurrence.

Transuranic Waste Processing Center (TWPC): On January 5, 2015, a WAI supervisor suspended work in the Cask Processing Enclosure (CPE) when workers noted a flash and heard a "pop" while moving a concrete waste cask with a 10-ton hoist. The source of the flash was not clear, but the supervisors directed an electrical inspection of the 10-ton hoist. The electricians did not find a problem, so supervisors directed work in the CPE to resume. The next day, personnel noted that the breaker for the adjacent 1-ton hoist had tripped. This hoist was tagged out of service and maintenance personnel made plans to evaluate it the next day. The evaluation revealed that the power cable for the 1-ton hoist had been contacted by the cask lifting fixture on the 10-ton hoist, which damaged its insulation and caused the flash/arc that the workers had noted. On January 8, OREM expressed concern that WAI did not recognize that this event was reportable and that work in the CPE continued without finding the cause of the flash. WAI's corrective actions include conducting a casual evaluation, inspections of similar electrical equipment, and an evaluation of equipment congestion in the CPE.

Highly Enriched Uranium Materials Facility (HEUMF): The HEUMF shift manager conducted an unplanned entry into a Limiting Condition for Operations (LCO) due to the loss of plant air. Plant air is needed to operate the dampers on the facility's air handling units (AHUs) and the AHUs support a credited safety function. The loss of plant air resulted from a loss of cooling water (tower water) to the site's low-pressure air compressors. The loss of cooling water occurred when a filter pot in the tower water system clogged. The loss of plant air also resulted in the loss of other AHUs across the site and the loss of the site's steam boilers used to heat nuclear facilities. Utilities management had previously identified this failure scenario. As a result, management was able to expedite recovery from these failures using previously staged hoses and piping to provide cooling water for the air compressors through a temporary connection with the potable water system. In addition, a facility to house new air-cooled air compressors is currently being constructed and is scheduled for completion next year.