

## 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 15, 2015

**Conduct of Operations/Work Planning and Control (WP&C):** In the last two weeks, CNS identified the following conduct of operations and WP&C performance errors:

- The Production organization encountered two instances in which workers failed to perform procedurally-directed fissile material receipt verifications. Last week, as a result of these issues and a similar issue that occurred previously (see 4/24/15 report), the Y-12 Site Manager suspended onsite transfers of fissile material. Material transfers resumed late last week after Production management established several compensatory measures, including enhanced training and oversight of these operations.
- A Building 9215 material clerk loaded an enriched uranium part in a container that was not approved for that loading, per site nuclear criticality safety (NCS) requirements.
- An Alarm Room Officer (ARO) failed to implement a fire patrol, per Fire Protection Organization procedure, after disabling the alarm for a pressure switch on a non-Technical Safety Requirement level fire suppression system. The ARO misread the fire patrol log and believed the fire patrol had already been established.
- Chemical operators inadvertently placed three metal cans containing fissile material in a storage location in which they were not allowed to be stored due to an NCS restriction. A similar error occurred in October 2014, but corrective actions from that event did not prevent recurrence.
- Utilities operators were unable to complete an annual preventative maintenance activity on booster pumps that support the site's potable water towers due to several WP&C issues. These issues included: workers initiating a lockout/tagout (LO/TO) despite finding the water tower system in a different configuration than that assumed in the work package, the lack of defined roles in that the person responsible for verifying the LO/TO was not identified prior to starting work, the key for the locks used in the LO/TO was not placed in the controlled lockbox, and the scope of work on the title page of the work package was different from the scope defined by the work control document. The operators suspended work after identifying the final issue.

**Building 9720-5:** Last week, the site rep watched a readiness assessment for the recontainerization of canisters containing a powdered alloy of uranium and molybdenum. The activity involves transferring canisters of this material from drums used on-site to drums certified for offsite transport. The process also includes a step to inert the drum with argon to reduce the likelihood for an energetic oxidation of the powdered metal alloy (the canisters containing the alloy metal are not opened during this process). The RA was well conducted and the workers and supervisors appeared to be well trained during a demonstration of the operation. There were no pre-start findings and personnel commenced the work activity this week.

**Ageing Infrastructure:** On April 28, 2015, CNS held a Management Review Board (MRB) to review the planned construction activities to repair the spalled concrete ceiling in Building 9204-2 (see 3/21/14 report). The purpose of the MRB process is to provide senior management a formal process to review highly hazardous, non-routine activities to ensure that the level of risk is understood, mitigated, and controlled. The MRB tentatively approved the plan with minor revisions to improve the implementation of select safety controls.