

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 30, 2017

TO: Steven Stokes, Technical Director
FROM: Jennifer Meszaros and Rory Rauch, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending May 26, 2017

Conduct of Operations: Last week, the CNS Y-12 Production Support organization held a series of training sessions on new shift briefing requirements (i.e., pre-job, post-job, and crew briefings). In 2015, CNS identified shift briefing weaknesses as a contributing factor to a series of safety-related events (see 6/5/15 report). Subsequently, the CNS Y-12 production senior supervisory watch (SSW) program increased its focus on shift briefing performance. SSW members observed that user organizations were struggling to find the appropriate balance between communicating information at the level of detail required by the CNS Y-12 conduct of operations manual and maintaining an effective level of interaction with the work crew. This was particularly challenging for shift briefings associated with routine tasks, which would often cover the same information on a daily basis.

In response to these observations, CNS Y-12 production management chartered a team with representatives from each production organization to evaluate opportunities to improve the shift briefing process. The team recently completed its effort, which resulted in a few key changes. Most significantly, CNS Y-12 production eliminated the requirement to perform three different types of shift briefings (pre-job, post-job, and crew briefings), consolidated the key elements of these briefings into a single set of shift briefing requirements, and codified these elements on a single form. In addition, certain questions previously required as part of every pre-job briefing may be covered on a weekly basis for tasks defined as “frequent” (i.e., occur at least once a week). The new shift briefing process went effective this week. The resident inspectors believe the degree to which the team sought user feedback as part of this improvement effort was commendable. The resident inspectors plan to observe the new process and focus on how well it improves the task-specific dialogue between workers and supervisors (see 2/3/17 report).

Building 9212: The primary extraction (PX) system remains shut down as operations and maintenance personnel continue to troubleshoot an organic feed pump that is not achieving required flow rates (see 5/5/17 report). Last week, the resident inspectors observed additional diagnostic work related to this pump and a PX product pump that is exhibiting the same issue. During the work, a responsible engineer noticed that an instrument panel did not reflect demand to the pumps. As a result of subsequent diagnostic work performed by instrumentation and control engineers, maintenance personnel this week performed repair work on the PLC; they will continue this work next week and will also attempt to calibrate the pumps. The resident inspectors shared several observations with the responsible maintenance supervisor regarding the work they observed; most notably, they identified information that might have been beneficial to cover during the pre-job briefing.

Building 9201-5: This week, the resident inspectors and an NPO facility representative walked down Building 9201-5 with the CNS facility operations manager and the CNS project manager responsible for roofing projects. Beginning in 2014, a subcontractor covered the failing Building 9201-5 roof with a polyurethane foam in order to prevent water intrusion into the facility. During the walkdown this week, the team spent the majority of their time on the facility roof identifying clogged roof drains and defects in the foam and its application (e.g., foam bubbling/cracking and areas under roof equipment where foam was not applied). These issues may be causing some of the water intrusion that workers are still identifying within the facility. After the walkdown, the roofing project manager shared near-term plans that will address many of these issues.