

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 15, 2016

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending April 15, 2016

Building 9212/Quality Assurance: Last week, a maintenance planner identified that several recently replaced Oxide Conversion Facility gaskets did not match design specifications. Maintenance personnel had just installed these gaskets during a preventive maintenance activity (PM), but the gaskets had yet to pass a post-maintenance leak check due to issues that were unrelated to the design specification discrepancy. Follow-up evaluations revealed that some previously installed gaskets also did not match design specifications. The fact-finding meeting for the event identified several breakdowns in communication between maintenance and quality assurance personnel, inadequate documentation to support development of PM work packages, and material storage and issuance problems. The meeting also identified an unrelated issue in which Production personnel began the post-maintenance leak check before maintenance suspended the lockout/tagout on the system. CNS has identified nearly a dozen corrective actions in response to this issue.

Building 9215/Conduct of Operations: The M-Wing machine coolant system contains four coolant settling trays that support the recycle of coolant for enriched uranium machining operations. Last week, an NPO Facility Representative observed one of the coolant settling trays in operation with an unapproved modification. Two days prior, maintenance personnel, in preparation for a weld repair on the system, had installed clamps and stiffeners to remove a buckle in a portion of the settling tray. However, upon inspection of the tray, they recognized that the area targeted for repair was not welded and therefore could not be repaired with the maintenance work package as written. Maintenance personnel appropriately suspended the work activity at that time and initiated a discussion with the responsible Production supervisor and system engineer regarding the path forward. They decided to add coolant back into the tray in order to mitigate the airborne radiological hazard in the area to allow the system engineer to evaluate the system without respiratory protection. Two days later, a chemical operator placed the system back into operation with the clamps and stiffeners in place.

This week, CNS held a fact-finding meeting to identify the events that led to the issue. The fact-finding meeting identified a series of conduct of operations breakdowns, including a failure to notify the shift manager immediately upon suspension of the work package, not involving the shift manager in the decision to add coolant back into the tray, a failure to reflect the status of individual coolant trays on the plan-of-the-day report, and unclear communication regarding the status of the tray during the pre-job briefing. Maintenance and Production management are developing corrective actions, including an extent-of-condition evaluation of the need for sub-system status control, and an evaluation of the control of systems during maintenance activities.

Building 9204-2E: This week, workers encountered an issue in which an overhead crane continued to lower a component after the worker operating the crane had released the “down” pushbutton. The worker immediately pressed the “up” pushbutton, which stopped the crane, but placed the component in an intermediate configuration that relied upon the hoist for stability. Assembly/Disassembly Operations (ADO) management approached recovery from the issue in a very formal manner by developing a recovery plan and convening an operational safety board (OSB) meeting to approve the actions specified in the plan. In accordance with the actions approved by the OSB, ADO personnel placed the component in a secure configuration and disconnected it from the crane. Maintenance personnel are evaluating the crane.