

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 20, 2016

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending June 17, 2016

Board member S. Sullivan visited Y-12 to walk down select defense nuclear facilities and observe production and maintenance activities. These activities included: watching production operations in Building 9204-2E dry room and gloveboxes, walking down the basement in E-Wing of Building 9212, observing a pre-job briefing for maintenance work in Building 9204-2 (see additional details below), and a general walkdown of machining operations in Building 9215.

Staff member D. Andersen was also at Y-12 this week to observe a structural walkdown at Building 9204-2E with outside experts brought in by CNS to review a legacy problem involving the building's exterior masonry. In addition, Mr. Andersen walked down areas in Highly Enriched Uranium Materials Facility (HEUMF).

Building 9204-2: This week, Y-12 Infrastructure (maintenance) and Special Materials Operations (SMO) personnel initiated a maintenance activity to clear suspected blockages in the vent lines of a system that is used to recycle lithium hydride (LiH) powder. The system has been shut down since a worker was injured while supporting a previous attempt to perform maintenance on the system (see 4/5/13 report). A subsequent work activity to clear residual process LiH from the system resulted in the initiation of Y-12's emergency maintenance work process due to fire protection concerns (see 4/24/15 report). As a result of these past issues, Y-12 Infrastructure planned this week's maintenance activity with additional management oversight, including a Management Review Board (see 5/20/16 report). Just prior to the start of this week's activity, workers identified a concern with the potential for their personal protective equipment to create interferences that could prevent them from accessing certain parts of the system. Y-12 Infrastructure personnel paused the job and revised the work package to address the workers' comments before initiating the activity. The site reps observed the portion of the maintenance activity and note that the work package incorporated an effective set of task-specific hazard controls and the workers executed the job in accordance with the approved work instruction. This was the site reps' first opportunity to observe the execution of a work instruction developed using the new template for maintenance activities that contain actions for Y-12 Production personnel (see 1/22/16 report). The work instruction effectively incorporated the work steps for the SMO personnel supporting this activity. At the time of this report, pipefitters had finished clearing the vent lines (noting almost no blockages) and the maintenance team had transitioned to performing the post work test.

HEUMF: CNS Y-12 Readiness Assurance personnel completed a readiness assessment (RA) of operations to support a new type of storage configuration for a specific canned subassembly (CSA) in HEUMF (see 4/29/16). The RA team identified two weaknesses and three observations, all of which captured minor paperwork issues or process improvements. The RA team concluded that personnel are trained, knowledgeable, and proficient; the associated equipment and documentation is appropriately configured; and ultimately recommended approval to conduct the subject operations. The site reps observed the RA and agree with the RA team's conclusions. The site reps noted that industrial safety practices could be improved for some of the tasks observed. Special Nuclear Materials Operations management had already recognized these opportunities for improvement and is working to address them. This week, the CNS Y-12 Site Manager gave authorization to commence the subject operations.