

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 March April 17, 2015

Staff members T. Chapman, J. Deplitch, M. Helfrich and R. Oberreuter were on-site this week to observe the Y-12 site annual emergency exercise. In addition, R. Oberreuter conducted oversight activities supporting the staff's on-going review of NPO oversight.

Building 9225-3: Last week, an event occurred at Building 9225-3 in which two 55-gallon drums of waste liquid from a maintenance activity became pressurized. Workers placed the lids on the nearly-full drums at the end of the work day, and, roughly six hours later, one of the building's flammable gas detectors alarmed locally and at the Plant Shift Superintendent's (PSS) office. The PSS made notification to the Building 9225-3 Shift Manager (SM) and the SM returned to the facility, investigated, and initiated response activities. One of the drums was bulging and the other drum was venting gas around a bung plug. Operators placed the venting drum under a nearby drum vent hood and Y-12 Fire Department personnel used a non-sparking tool to loosen the bung plug on the bulging drum to vent the contained gas. Five days after this event, the SM noted another bulged drum and initiated similar response actions. During the fact finding meetings, CNS management discovered that the job hazard analysis for this activity did not identify drum pressurization as a hazard and the Production operators supporting this maintenance activity were not present at the pre-job briefing. CNS corrective actions include determining controls for storage and transport of this type of waste.

Work Planning and Control (WP&C)/Conduct of Operations: This week, the Senior Director for Nuclear Operations Support and the Production Support Manager convened a critique to compare the causal factors for recent events involving conduct of operations and work planning and control performance errors (see 4/10/15 and 4/3/15 reports). Last week's event involving bulging drums at Building 9225-3 was included in the discussion (see above entry). The site reps believe a common causal factor for these events involved poor integration of Production and Infrastructure Management (maintenance) activities when planning and executing work. Examples include Production personnel not attending pre-job briefings for maintenance activities that they ultimately supported, and maintenance work control documentation failing to incorporate the scope of work for Production activities via step-by-step instructions (a best practice described in the Production supplement to the conduct of operations manual and a key corrective action from past events, see 4/5/13 and 8/24/12 reports). The site reps also believe that an over-reliance on informal practices to communicate equipment status or operating area restrictions and poor attendance from required personnel at Plan of the Day meetings (an important component of the site's process for granting work start authority in Production facilities) also contributed to these events. The Production Support Manager directed all Operations Managers to review the common themes from recent events and provide input regarding opportunities to improve operational performance based on these themes. Production management plans to document and track the status of the final set of selected performance improvement initiatives in a comprehensive plan.

Building 9212: In October, an event occurred in which contamination was spread from a ventilation exhaust, Stack 47 (see 11/7/14, 12/19/14, and 1/30/15 reports). This week, CNS transmitted to NPO a cost estimate to install HEPA filters in this exhaust ventilation system. The cost to install HEPA filters on Stacks 46 and 47 was roughly four million dollars. The report also identifies two other process exhaust systems in Building 9212 that should be evaluated for the installation of filters because they lack HEPA filtration.