DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 22, 2016

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending August 19, 2016

Building 9212: NPO has had longstanding concerns with the housekeeping in Building 9212's E-Wing basement. In November 2014, NPO's operations organization issued a finding regarding the condition of E-Wing basement, noting that it is not being maintained in a manner that promotes worker safety and health, environmental protection, or property preservation. CNS personnel acted to improve the overall condition of the basement, though they struggled to maintain certain areas of the basement to an acceptable level. For example, two months ago, the site reps and Board member S. Sullivan toured E-Wing basement (see 6/17/16 report) and noted less-than-satisfactory conditions (i.e., accumulation of dirt, standing puddles of water, and significant combustible loading) in the basement's west end.

Last month, CNS program managers identified approximately $250 thousand for use in improving the condition of E-Wing basement during the remainder of fiscal year (FY) 2016. As a result, CNS construction and production personnel initiated a dedicated cleanup effort. This week, the site reps, NPO management, and CNS enriched uranium operations (EUO) management toured E-Wing basement. The site reps observed a significant improvement in the condition of the west end of the basement as a result of this cleanup effort. EUO management is developing a strategy to further improve E-Wing basement housekeeping in FY17.

Building 9212/Work Planning and Control: Last week, a construction worker was exposed to low levels of ammonia vapor while working on a ventilation system in Building 9212. The worker was removing a blank flange that was being used as temporary pressure boundary during leak testing of a glovebox. The ventilation duct in question also vents an ammonia hydroxide tank connected to the duct in a different part of the building. The vapors accumulated in the idle ventilation system and settled at the blanked portion of the duct as it is a low point in the system. During the removal of the flange, the worker experience eye and chest irritation, immediately exited the work area, and notified his supervisor. The worker was wearing a filtered respirator, which is designed to capture radiological particulate but will not inhibit chemical exposure. At the critique meeting this week, CNS personnel noted that this hazard was not identified during work planning. Further, they identified a corrective action to review the ventilation system drawings and determine whether the vent line to the ammonia hydroxide tank is adequately annotated. This corrective action will aid in future hazard identification and control selection.

Building 9215: The Building 9215 operations manager declared a potential inadequacy in the safety analysis (PISA) for the new information related to a throttled machine coolant isolation valve (see 8/12/16 report).

Building 9204-2E: CNS management held a critique meeting this week for an issue identified earlier this month in which an isolation valve for a sampling line on an oven was installed without the appropriate configuration control. This issue was identified after a design agency representative questioned the lack of a step related to manipulation of this valve in the procedure governing oven operation. In June 2016, engineering personnel submitted a change request to modify several sampling valves and thus support re-certification of the oven; this change request failed to include the valve in question. In response to this event, CNS personnel intend to complete a change package that includes this valve, revise the procedure governing oven operations, and check other equipment modification activities to verify that the appropriate configuration control documentation is in place.