DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 25, 2018

TO: S. A. Stokes, Technical Director
FROM: D. J. Brown and Z. C. McCabe, Acting Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending May 25, 2018

NNSA Production Office (NPO) Assessment: On May 14, 2018, NPO transmitted an assessment plan of recent events for unexpected uranium accumulation (see 7/14/17, 11/9/17, 12/15/17, 2/16/18, and 3/30/18 reports). The scope of this assessment is to evaluate the contractor execution of requirements associated with occurrence reporting, extent of condition review, casual analysis, and corrective action tracking during the series of uranium accumulation discoveries at the Y-12 between July 2017 and April 2018. The assessment is expected to continue through August 1, 2018 and be documented in report tentatively scheduled to be completed in September 2018.

This week, the NPO Team commenced their assessment and held several discussions with CNS personnel. The assessment team and acting resident inspectors conducted walk downs of Hazard Category 2 facilities to include casting, reduction, machining, assembly, and the Holden gas furnace. The NPO assessment team held an outbrief after this week's activities and provided several preliminary conclusions including that CNS personnel performed a thorough extent of condition review and appropriate recovery actions for the various aforementioned holdup issues.

Building 9204-2E: CNS personnel inadvertently transferred non-material access area (MAA) material to a warehouse at Y-12 that was not authorized to store that material. Upon receiving the container of non-MAA material at the warehouse, radiological control personnel surveyed the container and identified an abnormal radiological dose measurement and noted that the container weighed significantly more than expected; which alerted CNS personnel of the error. Prior to shipping the container to the warehouse, 9204-2E personnel noticed a "Uranium Metal" sticker on the side of the container. Through review of the container documentation on the lid, 9204-2E personnel incorrectly determined that the sticker was applied by mistake. The CNS fact finding investigation determined that this container was loaded and sealed in December 2017 via a procedure that does not specify when to put on the lid and was likely one of several containers loaded at that time. Despite the container being sealed with a tamper indicating device, CNS personnel were unable to determine who loaded the container to obtain additional information regarding what may have led to the error. 9204-2E personnel are evaluating how to improve their process to avoid this issue in the future.

9995 Laboratory: An individual wearing gloves and safety glasses was cleaning a new acid distillation unit with 70% nitric acid per the user's manual prior to its first use. While cleaning the unit a hose came loose and splashed nitric acid on their face. The individual then proceeded to a nearby restroom rather than the emergency eyewash station because they were unfamiliar with its location. Since this task only involved cleaning the equipment and not distilling acid, 9995 personnel determined that neither a job hazards analysis (JHA) nor a task preview were necessary and it could be performed under the laboratory "Chemical Hygiene Plan." As a corrective action, 9995 personnel are planning to hold a "Safety Meeting" that will include a demonstration of an emergency eyewash station.