

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 26, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: Leigh Lin (acting), Resident Inspector
SUBJECT: Oak Ridge Activity Report for Week Ending October 26, 2018

DNFSB Staff Activity: L. Lin was at Oak Ridge to attend training and to provide resident inspector coverage.

Building 9204-2E: During disassembly operations, one of the steps usually involves injecting silicone grease to pressurize and enable removal of one of the components. However, there are a number of units where the component remains stuck and requires more aggressive techniques. During an evolution last week, after unsuccessfully trying multiple techniques to remove the component, an operator used an angle grinder to cut the component. Work was paused when an industrial hygienist questioned the use of the grinder. Breathing zone samples and smears did not detect any spread of contamination. The procedure does not prescribe a specific method for removal of this component, but parts of the procedure mention cutting and grinding. The precautions and limitations section of the procedure notes personal protective equipment that should be used for hot work such as grinding where sparks can be produced. The job hazard analysis document covers a wide range of work, so the pre-brief for the job only covered the sections the supervisor thought would apply for this work evolution, which did not include hot work. The procedure does not have a detailed approved tool list associated with the work. The grinder was procured, did not successfully go through the hot work permit process allowing its use, but ended up in the hood. Actions to be taken include briefing the workers on changing conditions and evaluating the standard work control for tools.

Building 9212: A change request package to place portions of the Westfalia Centrifuge out of service was processed as a Grade 3 (defense-in-depth systems) package. However, part of the package involved components of the safety significant Wet Vacuum System, which would require the change package to have been processed and executed at a Grade 2 (credited safety systems) level. Per the contractor's process, the change request went through a Configuration Control Board review, Safety and Technical review, Unreviewed Safety Question Determination, and an Operational Safety Board review. The work was performed as Grade 3 work per the package. Upon review when returning the system to service, the shift technical advisor identified that the work should have been executed as a Grade 2 package. The system remains locked and tagged out until a Grade 2 package is processed and completed. During the fact finding meeting, it was determined that the original scope of the change request back in March 2016 likely only included portions of the general service Westfalia Centrifuge. Later on, drawings were included that indicated removal of blind flanges on the Wet Vacuum System as part of the work. Fact finding meeting participants noted that not all the affected systems were identified in the work scope, the incorrect grade was selected despite going through several review boards, and the package was not re-evaluated as required by a recent revision to the contractor's procedure for packages more than a year old. The contractor plans to review all similar change requests placing these systems out of service.