

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 25, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: Frank Harshman and Clinton Jones, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending October 25, 2024

Building 9204-2E: A resident inspector (RI) walked through the facility to determine if CNS was in compliance with the revised *Seasonal Facility Planning* procedure (see 10/27/2023 report). As part of the revision, CNS changed the date for initiating and prioritizing work requests for winterization/freeze protection deficiencies to on or before May 15th of each calendar year, with work to be completed or compensatory measures implemented by October 15th. During a freeze period in January of this year, a utilities operator discovered one of the chilled water fed HVAC units with frozen coils that burst. Upon further inspection, the system engineer determined the coils had frozen due to the freeze stat thermal sensing wire taking an average temperature across the coils. This allowed the middle section to reach below freezing temperatures while the outer sections were hot enough to keep the average temperature in the operating range. The system engineer put a work request in early in the year to complete the repairs on this unit; however, parts and scheduling delays kept the repairs from being finished. The RI asked both the system engineer and facilities operations management (FOM) personnel whether there were compensatory measures in place to allow operation of this unit prior to all of the repairs being finished and discovered there were none. The RI also inquired about a set of doors in part of the facility that allow forklift access that do not close without assistance. FOM staff typically post a sign on the doors that directs personnel to ensure they are closed when temperatures fall below freezing as these doors are a known issue. This compensatory measure was also not in place. The RI did note positive practices including the building manager proactively installing covers over the building's louvered air intakes as part of lessons learned from previous years and engaging the system engineer as well as FOM personnel to determine if the current cold weather checklist had any gaps.

Building 9212: An RI previously attended an event investigation for work control issues identified during the execution of a main drain valve replacement on a wet pipe sprinkler system (see 10/11/2024 report). Fire department personnel drained the entire system through a roll up door into a floor pit located just beyond the door in preparation for this maintenance. This method of draining is a common practice for this wet pipe system. The work area where the draining occurs and the pit are posted as high contamination areas. CNS had previously plugged the pit's drain, expecting that the water would accumulate within; however, questions on the integrity of the pit were raised during the event investigation when discussing the quantity of the water drained. CNS reviewed drawings of the pit which show that its drain, leading to a storm drain system, was previously plugged. CNS assigned a follow-on action to review the integrity of the pit and is currently evaluating whether floor contamination was discharged into the pit and ultimately into the storm drain.