DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 7, 2024

TO: Timothy J. Dwyer, Technical Director FROM: Frank Harshman Resident Inspector

SUBJECT: Oak Ridge Activity Report for Week Ending June 7, 2024

Staff Activity: Clint Jones traveled to Los Alamos National Laboratory this week.

Building 9212: CNS entered its formal event investigation process due to a maintenance pipe fitter not applying their personal lock to a Lock Out/Tag Out (LOTO) while conducting maintenance. The resident inspector (RI) observed maintenance being performed on a wet pipe system pressure switch that reconfigured the system to prevent further nuisance alarms. The RI noticed that the personal LOTO lock of the pipe fitter actively performing work inside the maintenance boundary was hanging from his belt. LOTO personal locks are red locks used by authorized employees to lock onto lockboxes to provide personal assurance that the system isolation points are under their control while performing work on that system. The RI raised the question to the facility representative, who raised the concern with the supervisor. The supervisor spoke to the pipe fitter and then applied the pipe fitter's lock to the lockbox. The pipe fitter was unsure about LOTO permit guidance or the requirements for applying their personal lock. The pipe fitter had the impression that he was not required to apply his lock. The pipe fitter was not exposed to any hazardous energy as the electrical portions of the system were denergized. CNS will hold an event investigation to determine the underlining cause and corrective actions to be taken.

Aging infrastructure: The RI observed a meeting of the management integration and steering team (MIST) who is chartered to maintain senior management attention on the long-term vision and objectives of the extended life program (ELP). CNS held the meeting to review gaps that were identified between the existing configuration of legacy ELP facilities and modern nuclear safety and facility design requirements. Subject matter experts provided recommendations to address gaps in areas such as confinement ventilation, lightning protection, fire sprinkler coverage, fire barriers, fire code equivalencies, electrical power systems, and nuclear material packaging. Of note, CNS discussed DNFSB Recommendation 2004-2, *Active Confinement Systems*. Ultimately CNS determined that the installation of a dedicated secondary confinement system in ELP facilities is not practical, would result in significant cost and mission interruptions, and the materials in use in the facilities do not warrant that level of confinement. CNS provided this information to the DNFSB staff.

Building 9206: CNS declared a potential inadequacy in technical safety requirements (TSR) for inconsistent logical connectors and numbering in one of the TSR limiting conditions for operation action statements. CNS conducted an extent of condition review that identified a similar issue in an additional TSR. CNS is processing a change to those TSRs to correct this issue.