

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 4, 2025

TO: Technical Director
FROM: Idaho National Laboratory (INL) Cognizant Engineer
SUBJECT: INL Report for March 2025

DNFSB Staff Activity. The DNFSB INL cognizant engineer held weekly meetings to maintain awareness of site activities, including attending event fact findings, management reviews, integrated project team reviews, and facility plan of the day meetings. The cognizant engineer also attended a hazard review board meeting on March 25, 2025, for the replacement of a cell off-gas filter in building CPP-666 at Idaho Nuclear Technology and Engineering Center. Management and operators discussed in detail the specific steps, hazards, and previous lessons learned from this operation, which has not been conducted in over five years.

Advanced Mixed Waste Treatment Project (AMWTP) Drum Corrosion Updates. Idaho Environmental Coalition (IEC) personnel identified three additional drum corrosion issues during March 2025 (See November 2024, January 2025, and February 2025 reports for additional information on drum corrosion). On March 24, IEC personnel found one sludge repackaging project (SRP) drum with a pinhole and another SRP drum in which the vent had fallen into the drum due to corrosion. On March 27, IEC personnel discovered a leaking BN510 product drum while moving it. This drum did not contain a criticality cleanout puck, some of which have previously been discovered with liquids within. IEC responded appropriately to these discoveries and determined that no radiological release occurred. IEC personnel continue the effort to overpack drums with visible corrosion.

AMWTP Ultrasonic Drum Testing. After an operational demonstration of the ultrasonic drum testing setup on March 3, 2025, IEC personnel commenced official testing of BN510 product drums. During March 2025, IEC personnel tested 314 drums. Of the drums tested, 40 were rejected (failed), including 11 due to corrosion. Of those eleven, one drum met the criteria for immediate secondary containment (~25% drum wall thickness loss). The other drums were rejected because surface imperfections prevented an accurate scan of at least 75% of the designated scan area. IEC personnel slated all rejected drums for overpacking.

Integrated Waste Treatment Unit (IWTU) Lockout/Tagout (LOTO) Issue. On March 11, 2025, IEC personnel discovered a violation in the application of the LOTO procedure. Two work groups accepted the LOTO, even though one of the four zero-energy checks was not identified as complete on the record sheet. Omitting zero-energy checks could expose workers to hazardous mechanical or electrical energy. IWTU immediately paused all IWTU activities being performed under LOTO to clear the affected LOTO work. IWTU personnel also performed an extent of condition check on all other active IWTU LOTOs during the pause to ensure safe performance of the associated work. In addition to other corrective actions, such as revising and deploying training and development of lessons learned, IWTU issued a new daily order requiring enhanced management review of LOTO activities. A similar event with a missed zero-energy verification occurred at IWTU in September 2024.