

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 3, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: Mark T. Wright, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for October 2023

DNFSB Staff Activity. The Board's INL cognizant engineer held weekly meetings to maintain awareness of site activities and visited INL during the week of October 23, 2023, to complete training and access requirements. The cognizant engineer attended site familiarization tours for the Integrated Waste Treatment Unit, Calcine Disposition Project, and New Waste Calcine Facility. A staff team also conducted an interaction discussing electrical safety at the site.

Update on Waste Drum Shipping Status from the Advanced Mixed Waste Treatment Project (AMWTP). As noted in the September 2023 report, INL personnel reduced the number of weekly shipments to the Waste Isolation Pilot Plant (WIPP) from 12 to seven during in October. The Board's staff inquired if this reduction in shipments would inhibit INL from meeting the requirements of the Idaho Settlement Agreement, which currently requires 55% of waste shipped to WIPP to come from INL, averaged over three years. INL personnel noted that shipments to WIPP are currently ahead of schedule (68% complete), and that the agreement for this year should still be met, even with the current shipping slowdown.

Waste Drum Count Discrepancy. The INL environmental services group routinely reports WIPP waste shipment updates to the Idaho Department of Environmental Quality (IDEQ). Recently, INL personnel found a discrepancy between the actual number of drums shipped to WIPP and the number of shipped drums reported to IDEQ. After investigation, INL personnel determined that the number of shipped drums in the waste databases was correct, and the 7,000-drum undercount reported to IDEQ resulted from the use of an obsolete waste stream identification number when querying the databases to generate the report. Although INL personnel have not identified additional instances of mistakenly querying the databases for regulatory reporting, the Board's staff plan to look into work practices for administering and using the databases due to their safety functions.

Accelerated Retrieval Project (ARP) Decontamination and Demolition (D&D). During October 2023, operators continued D&D activities as part of an ongoing reclamation effort for the ARP facilities. The demolition of ARP II and ARP-III is now complete, and size reduction and demolition of ARP-II is nearing completion. Department of Energy Idaho Operations Office personnel witnessed ARP-III demolition activities, noting successful execution of the planned work. Burial of contaminated heavy equipment (tele-handlers, excavators, and loaders) continues in the last open pit in ARP-IX. When moving Tele-handler #3 to the pit, the low oxygen alarm activated twice in the cab (at 19.5% oxygen limit), and there was some confusion about the cause of the alarm. INL personnel determined that the old high efficiency particulate air filters for the cab were likely plugged, preventing fresh air circulation into the cab. INL personnel are removing the cab filters, as well as drilling holes in the cab Lexan windows, to ensure fresh air circulation in the cabs of the remaining equipment. The operating procedures have also been updated to include how an operator should respond to a low oxygen alarm, which includes leaving the cab immediately when an alarm activates.