

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 2, 2025

TO: Technical Director
FROM: Idaho National Laboratory (INL) Cognizant Engineer
SUBJECT: INL Report for April 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 and another member of the technical staff were on-site from March 31 to April 3, 2025. The staff observed Integrated Waste Treatment Unit (IWTU) maintenance outage activities, an IWTU emergency exercise used to meet continuing training requirements for qualified operators, Calcine Retrieval Project air lance testing, and Advanced Mixed Waste Treatment Project (AMWTP) ultrasonic drum testing and overpacking operations.

IWTU Permit-Required Confined Space Entry Breathing Air Issue. On April 11, 2025, an IWTU worker entered a Granular Activated Carbon (GAC) bed in support of replacing the GAC bed material. Prior to entry, an IWTU industrial hygienist (IH) verified that there were no hazardous conditions inside the work area but required the entrant to use a supplied-air respirator due to the potential for dust and various odors. Within minutes of entry into the confined space, the entrant realized he was not receiving breathing air, removed his respirator, and exited the GAC bed through the top manway without injury or exposure to hazardous materials. Investigation of this event revealed that lack of communication between the IWTU shift supervisor, outside breathing air unit operators, IWTU IH, and entrant resulted in the entrant accessing the space with air being supplied only with the escape bottle instead of the breathing-air system. This error could have led to a serious injury if the confined-space atmosphere had been hazardous. IWTU personnel confirmed that no other confined-space entries were currently being conducted at IWTU, assigned a dedicated IWTU shift supervisor for all remaining GAC bed entry work, and limited future issuance of respirators until breathing air supply to the system has been verified present. IWTU personnel plan to update the breathing air procedure and are evaluating whether any other changes are warranted.

Idaho Nuclear Technology and Engineering Center (INTEC) Radiation Area (RA) Boundary Violation. On April 22, 2025, a worker entered an RA without logging onto a radiological work permit (RWP) and donning the proper dosimetry. A radiological control technician noticed the lack of dosimetry within a few seconds and asked the worker to leave the RA. Similar issues occurred at AMWTP on March 6, 2025, and INTEC on October 1, 2024. In addition, the site has experienced several issues related to compliance with radiological protection practices in recent months. These issues included crossing a radiological boundary area (RBA) to get help after a frisker alarm (March 21, 2025, at AMWTP), exiting from an RBA without a hand or foot survey (November 20, 2024, at INTEC), entering a contamination area without the proper controls (October 28, 2024, at AMWTP), and entering an RA under an RWP but without a personal dosimeter (September 9, 2024, at IWTU). Idaho Environmental Coalition self-identified this adverse trend, conducted a causal analysis, and is implementing corrective actions to address these issues, including conducting management workplace visits with a focus on radiological program requirements; holding monthly center of excellence meetings to discuss issues, corrective actions, initiatives, and compliance; providing web-based training on radiological program adherence; quarterly distribution of radiological lessons learned; and improvements to RBA signage.