

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 6, 2023

TO: Katherine R. Herrera, Acting Technical Director
FROM: Erin A. McCullough, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for December 2022

DNFSB Staff Activity. The Board's cognizant engineer attended regular calls with the Department of Energy Idaho Operations Office (DOE-ID) and Idaho Environmental Coalition, LLC (IEC) personnel. She also visited INL to observe progress with transitioning the Integrated Waste Treatment Unit (IWTU) into radiological operations and waste handling at the Radioactive Waste Management Complex. After a suite of events involving vehicles and telehandlers, the Board's staff cognizant engineer attended multiple management reviews meetings.

COVID-19 Update. The Centers for Disease Control and Prevention COVID Data Tracker shows that all counties near INL facilities have "Low" COVID-19 Community Levels.

IWTU Enters Unplanned Shutdown Status. On December 29, 2022, the IWTU director implemented a standard shutdown after operations crews noticed solid material leaking into the upper section of the Canfill 0 cell. From camera views, the material appeared to be from a breach of piping inside the cell. To determine the cause, extent, and correction for the issue, IWTU needed to be shutdown. The duration of the shutdown period will include time for IWTU operations personnel to assess the breach, evaluate the extent of conditions, perform repairs, and implement lessons learned. This unplanned shutdown followed days of facility heat-up in preparation for treating sodium-bearing radiological waste currently stored in the Idaho Nuclear Technology and Engineering Center (INTEC) tank farms.

Damage to Cask Receiving Area Floor at Underwater Fuel Storage Area at INTEC. On December 10, 2022, operators damaged the Cask Receiving Area floor of the Fuel Storage Area while unloading a storage pool gate from a flatbed trailer. Unloading the gate involved easing the flatbed trailer on which the gate was loaded forward a few inches while the gate hovered above the floor. When moving the flatbed trailer forward, the tractor pulling it drove farther and faster than anticipated, causing the pool gate to hit the floor and damage two sections of the floor surface, each measuring approximately four inches by four inches. The management review meeting after this event acknowledged that operators had not performed this loading activity within the last 15 years. According to the Federal Perspective in the Initial Notification Report, "the pre-job [briefing form] appears to have been used as nothing more than a checklist with no annotated comments or other amplifying information."

CO-90 Box Containing Radiological Waste Slid off Telehandler at INTEC. During a routine loading operation on December 20, 2022, a CO-90 box loaded with mixed low-level radiological waste slid off the telehandler tines, fell approximately four feet, and landed on the small end on the ground. Visual inspections and radiological surveys confirmed that the box did not release any of its contents. An additional inspection will occur once operators reconfigure the box since its current position makes one side visually inaccessible. A management review meeting after this event determined that personnel performing the operation were not aware of the CO-90 box weight and did not adequately space the telehandler tines.