

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 3, 2025

**TO:** Technical Director  
**FROM:** Acting Cognizant Engineer  
**SUBJECT:** Idaho National Laboratory (INL) Report for June 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 June 23 through 27, 2025. The staff team met with the field office managers responsible for the Idaho Cleanup Project to discuss the impact of recent staffing changes and lines of inquiry on field office oversight of the contractor assurance system. The team conducted walkdowns and observed operations at the Idaho Nuclear Technical and Engineering Center (INTEC), Advanced Mixed Waste Treatment Project (AMWTP), and Integrated Waste Treatment Unit (IWTU) facilities. The team was also given a tour of the Calcine Retrieval Project mock-up, which has been used to effectively identify the process, equipment, and procedures necessary to accomplish this task.

**INTEC Milestone.** For the first time in twenty years, the valve cubicle hot cell at the New Waste Calcining Facility (NWCF) was cleaned out for use and all four high-efficiency particulate air (HEPA) filter units were operational. Over this time, it served as a collection point for radioactive equipment, debris, and waste boxes. The debris restricted access to a pit within the hot cell where several valves (many remotely operated) are located. As part of the cleanout effort, approximately eighteen waste boxes totaling twenty-seven thousand pounds of radioactive waste were removed. Operators wrapped exposed pipes with heavy lead blankets to control radiation in the hot cell and used filtered breathing masks, in addition to the required protective equipment, during this evolution. This cleanout effort and restoration of HEPA filter operability was a major milestone and accomplishment in Idaho Environmental Coalition, LLC (IEC) waste processing history. Today, NWCF represents a mid-point between the tank farm underground feed tanks that contain the sodium-bearing waste and the IWTU.

**IWTU Unexpected Equipment Configuration.** On June 13, 2025, during a pre-job walkdown/lock-out tag-out (LOTO) walkdown, an instrument technician identified an anomaly in equipment configuration that could have resulted in potential exposure of workers to process off-gas. The unexpected configuration was the disconnection of a Tygon<sup>®</sup> hose (3/8 inch in diameter) that directs a sampling of process off-gas to the Continuous Environmental Monitoring System (CEMS). Since IWTU is still in shutdown mode, the process off-gas is primarily air and nitrogen. The sample line, when found, was already isolated by a previous LOTO. Earlier in the day, prior to installation of that LOTO, the isolation valve was open, and it is unknown whether the Tygon<sup>®</sup> hose was disconnected while the valve was open. On June 14, 2025, a fact-finding meeting was held but did not identify when, how, or why the hose was disconnected. However, it was noted that the operational oxygen monitor in the CEMS room did not alarm, indicating no displaced oxygen hazard to personnel. Radiological personnel surveyed the technician and potential areas of exposure but did not find any contamination. The nuclear facility manager appropriately declared this event as ORPS reportable.