

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 3, 2026

Idaho National Laboratory (INL) Cognizant Engineer Report for March 2026

Staff Activity: The 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, as applicable. The cognizant engineer conducted a site visit during March 9–12, 2026, to walk down INL defense nuclear facilities and observe associated field operations. The cognizant engineer also held discussions with DOE Idaho Operations Office personnel regarding emerging work activities, including the National Nuclear Security Administration’s plan to utilize the Advanced Mixed Waste Treatment Project (AMWTP) facility to process waste from other DOE sites.

Integrated Waste Treatment Unit (IWTU) Status: IWTU continues to operate normally, processing sodium bearing waste (SBW) at a rate of 1.0 gallon per minute. IWTU operations and engineering are monitoring the Denitration Mineralization Reformer (DMR) differential temperature issues following a mini DMR bed reset. As a result of the reset, the differential temperature began to increase slowly while DMR neck temperatures began to decrease at an SBW feed rate of 1.3 gallons per minute. Thus, feed rate was reduced. IWTU operators have processed over a third of the site’s 900,000 gallons of SBW at the time of this report.

IWTU Lessons Learned – Steam Valve Position Indication Error: On March 23, 2026, Idaho Environmental Coalition (IEC) management submitted a lessons learned to be shared internally within IEC and with DOE related to the IWTU limiting condition for operation entry on February 20, 2026, due to a misalignment between a DMR steam valve position indicator and actual valve position following maintenance (see INL Report for February 2026). The lessons learned by IWTU management identified that neither the original work package nor the follow-on work order contained the expected level of rigor needed to reliably complete the system reassembly task without error. Specifically, the work package did not include verification steps with the required signatures for critical steps to ensure proper alignment between the actual valve position and the position indicator. Recommended corrective actions included developing an additional form to include in the work package that has verification and signature requirements for valve actuator installation.

Radioactive Waste Management Complex (RWMC)/(AMWTP) – Review of Self Assessments Completed for Nuclear and Criticality Safety: On March 31, 2026, the DOE Nuclear Safety Specialist/Safety System Oversight completed a review of self-assessments completed by IEC in February 2026 for nuclear and criticality safety. The two assessments were completed to evaluate criticality safety at AMWTP under the current documented safety analysis. The evaluations included nuclear criticality safety operational inspections at the treatment facility and for waste handling operations. The assessment report documented an action for IEC criticality safety to evaluate the different postings for the various box lines. Additionally, the nuclear safety specialist noted that the inspection demonstrated IEC’s commitment to criticality safety program requirements.