

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 4, 2018

TO: Steven A. Stokes, Technical Director
FROM: Bradford V. Sharpless, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for April 2018

DNFSB Staff Activity. Board's staff members B.V. Sharpless, D. Shrestha, and S.G. Thangavelu were on site at INL during April 23–27, 2018. The staff review team's objectives for the week were to:

- Follow up on the disposition of safety items identified by the Board's staff during its 2015 safety basis review at the Advanced Mixed Waste Treatment Project (AMWTP). The Board communicated these items to the Department of Energy (DOE) in a November 23, 2015, letter and an accompanying issue report.
- Verify that changes made to AMWTP's Technical Safety Requirements (TSR) between RPT-TSR-03, Rev. 16 and follow-on revisions were appropriate and did not result in unintended negative safety consequences.
- Observe activities associated with the investigation of the Accelerated Retrieval Project (ARP)-V's waste drum rupture event that began on April 11, 2018.
- Observe recent facility modifications to the Integrated Waste Treatment Unit (IWTU).
- Discuss the status of the IWTU facility readiness activities in advance of the next round of non-radioactive waste simulant testing.

The Board's staff provided an average of 1.1 person-weeks per month of on-site oversight for the first seven months of fiscal year 2018.

Accelerated Retrieval Project (ARP). A total of four drums containing repackaged radioactive waste ruptured at the Radioactive Waste Management Complex's (RWMC) ARP-V facility during April 11–12, 2018. ARP-V houses RWMC's Sludge Repackaging Project, which is used to treat legacy radioactive sludge waste prior to its permanent disposal. The ruptured drums likely contained waste products resulting from nuclear weapons production. The waste material was shipped from the Rocky Flats Plant in Colorado to Idaho for storage in the 1960s, though it could have originated at a site other than Rocky Flats. The drums had not been certified for permanent disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico.

Fluor Idaho, LLC (Fluor Idaho), personnel conducted an entry into ARP-V on April 19, 2018, to make an initial survey of the event scene. They conducted subsequent entries on April 25, 2018, and April 27, 2018, to place a camera for monitoring the repackaged waste drum array, make adjustments to the facility's ventilation system, and collect waste material samples for laboratory analysis.

DOE Idaho Operations Office personnel stated that there were no injuries resulting from the event and that the public is not at risk. INL has resumed shipments of certified transuranic waste containers to WIPP. Shipments consisting of approximately 16 waste drums are leaving INL four to six times per week.