

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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TO: Christopher J. Roscetti, Technical Director
FROM: Erin A. McCullough, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for June 2022

DNFSB Staff Activity. A team of five staff members observed an evaluated sitewide full-scale emergency exercise at INL on June 15, 2022. Two staff members participated in a formal interaction with the Department of Energy (DOE) for the ongoing *Potential Flooding Impacts to INL Idaho Clean-up Project (ICP) Facilities* review. The INL cognizant engineer performed quarterly walkdowns of the Radioactive Waste Management Complex (RWMC) facilities the last week of June. Through formal information requests, staff members obtained updates about the forthcoming probabilistic seismic hazard analysis and the flooding study.

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

Sitewide Full-Scale Emergency Exercise. The scenario involved seven different concurrent events at facilities across INL with a sitewide loss of power. At the Idaho Nuclear Technology and Engineering Center (INTEC) New Waste Calcining Facility, operators dropped a waste drum containing solids, spilling its contents, which was soon followed by a sitewide power outage. This power outage caused the building ventilation electrical system to fail. Additionally, per the scenario, the INL Fire Department was unable to respond to INTEC to mitigate the waste spill and assist with a minor injury (a sprained ankle). At the RWMC Type-II Storage Module (WMF-629), as a result of the sitewide power outage, a forklift operator knocked over a drum, spilling its contents. Both the INTEC and RWMC events were classified as “alerts,” requiring employees to evacuate at least 100 meters away from the respective event scenes. Other events occurred at the Advanced Test Reactor and the Materials and Fuels Complex. The staff team considered this exercise appropriately challenging, but noted that some response objectives appeared unmet, such as completion of notifications within fifteen minutes and timely medical response for an injured worker. After the exercise, the staff team met with DOE leadership to discuss observations.

TRUPACT Shipment Returned to INL. On April 9, 2022, WIPP personnel reported that they identified a small amount of free-standing liquid at the bottom of TRUPACT-148, a recently shipped container with six waste drums inside. WIPP personnel shipped TRUPACT-148 back to INL on May 9, 2022; it arrived on May 11, 2022, and operators opened it on June 6, 2022. After removing the drums inside, operators determined that one of the drums had pin-hole leaks in the bottom. A team of six staff members are reviewing the contents of the problematic drum and have begun to research specific waste streams from which the contents of the drum originated.

IWTU Radiological Protection Training. Although the IWTU is still radiologically clean, Radiological Protection Management posted the facility as radiologically controlled for training purposes. This enables operators to gain experience with radiological controls (e.g., frisking out of contamination areas and radiological boundary areas) before the facility begins processing radioactive waste. Operations management anticipates the commencement of waste processing activities near the end of calendar year 2022.