

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 3, 2022

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

DNFSB Staff Activity. Two staff members virtually and physically attended the INL Probabilistic Volcanic Hazard Assessment (PVHA) Senior Seismic Hazard Analysis Committee (SSHAC) Level 3 Workshop from May 9-13, 2022, in Salt Lake City, UT. Two staff members visited the Integrated Waste Treatment Unit (IWTU) within the Idaho Nuclear Technology and Engineering Center to observe start-up activities and a radiological release drill.

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 Progress. The IWTU completed the start-up procedure and is now in operations mode, processing simulant material at a rate of 1.5 gallons per minute. While performing the start-up procedure, IWTU Operations management initiated a “pause” to reconfigure a water pump necessary for operations. Two of the Board’s staff members observed the development and execution of the work package that resulted in a facility modification on the off-gas cooling system. Review progress with this observation continues.

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. TRUPACT-148 is currently staged at the Advanced Mixed Waste Treatment Project, where operators will re-open the container and investigate the anomaly after practicing on a clean mock-up and finalizing the work order.

INL PVHA SSHAC Second Workshop. There are volcanic dikes and vents located within 100 kilometers of INL. Some volcanic activities occurred near Arco, ID as recently as 2,000 years ago. Researchers presented their continued efforts to identify, characterize, and weigh risks associated with volcanic hazards that could potentially impact INL nuclear facilities. These impacts include lava flows, eruption projectiles, ashfall, and surface deformations.

Future Interaction – Potential Flooding Impacts to INL Idaho Clean-up Project (ICP) Facilities. The Board’s staff members are obtaining additional information about the flooding hazard and design features that protect INL ICP facilities. This ongoing review also considers the flooding risks and impacts posed by a structural failure scenario for Mackay Dam.

Operational Supply Chain Issues. The Idaho Cleanup Project Monthly Performance Report for April 2022, published on May 23, 2022, notes that “General personal protective equipment such as nitrile gloves, rubber booties, Tyvek suits, respirator cartridges, and airline hoses have extended lead times up to six months.” Supply chain management forums are evaluating the feasibility for sharing critical inventories among U.S. Department of Energy sites.