DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 7, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: Timothy L. Hunt, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for July 2020

DNFSB Staff Activity: No staff members were on site during July 2020.

COVID-19 Response Update. Operations at INL continued throughout July in accordance with Stage 4 of state guidelines and Phase 2 of federal guidelines.

Fire at Idaho Nuclear Technology and Engineering Center Office Trailer. In the early morning of July 30, 2020, a Fluor Idaho engineer saw flames coming from an HVAC unit on an office trailer. The INL fire department responded to put out the fire and the trailer was electrically disconnected. Though the trailer houses only office personnel, the inability to use the trailer had an impact on operations at the Integrated Waste Treatment Unit (IWTU). A large portion of the workers in the trailer (work planners, engineers, safety and training personnel) work from home to support IWTU but with the power disconnected, the workers lose remote network access. The fact finding revealed that the fire apparently started in an HVAC unit that had a recent maintenance activity assigned but, due to incorrect parts, was not performed. During the maintenance, the unit was turned off to change the limit switch and when it was determined the switch was not the correct one, maintenance stopped work, restarted the unit, and left the area.

IWTU Product Canisters Dropped. On July 31, 2020, a forklift was relocating two IWTU product canisters stored in a wooden rack when the canisters broke free and fell out of the rack in an outside storage area. One of the canisters involved was empty, weighing approximately 1000 pounds. Unknown to the operators, the other canister had been filled with simulant product and weighed around 4500 pounds, causing a load imbalance. The wooden racks were designed for transfer and storage of up to six empty canisters; they were never intended for full canisters. In addition, the wooden racks had been outside, exposed to the elements for more than 7 years. The material released from the damaged canister appeared to be bauxite-laden simulant product from legacy IWTU operations. Initial follow-up actions were to verify that all other canisters in storage were empty. Metal racks are expected to be used for storage of empty canisters inside IWTU and will be used in the future to transport empty canisters.

Safety Basis for Processing Sludge Waste in the Treatment Facility Boxlines. On August 4, 2020, the Department of Energy, Idaho Operations Office reviewed and approved ESS-137, *Evaluation of the Safety of the Situation for the Drum Event at ARP V (WMF-1617)*, Revision 2. The basis of approval is documented in the Safety Evaluation Report, Revision 4, Addendum F, with two significant comments resolved by one condition of approval. ESS-137, Revision 2 addresses the addition of operational restrictions at the Advanced Mixed Waste Treatment Project (AMWTP), similar to those restrictions in place for operations within the Accelerated Retrieval Project (ARP) facilities. The new restrictions are related to processing sludge waste with potentially reactive or pyrophoric metals in the Treatment Facility. Additional editorial changes resulting from ESS-137, Revision 2, are updates to the operational status of waste exhumation and sludge repackaging operations at applicable ARP and AMWTP facilities.