DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 5, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Timothy L. Hunt, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for February 2021

DNFSB Staff Activity: No staff members were on site during February 2021.

COVID-19 Update. INL entered Phase 2 of its Reconstitution Plan on June 3, 2020, and continued in Phase 2 throughout February 2021. The state of Idaho returned to Stage 3 of its Idaho Rebounds plan on January 29, 2021 and remained there during February 2021.

Worker Sprayed in Face with Hydraulic Fluid at the Idaho Nuclear Technology and Engineering Center (INTEC). On February 25, 2021, a 1-ton hydraulic spreader failed and sprayed hydraulic fluid into the face of a worker in the Calcine Retrieval Project mockup facility. The worker was wearing safety glasses at the time, minimizing his exposure. The worker attempted to use the portable eyewash station to rinse both eyes but no water flowed from the eyepieces when the actuator was operated. Instead, water seeped from a drain point in the eyewash station manifold. A lack of understanding of the proper operation of the portable eyewash station exhibited by the affected worker resulted in the 3-way valve actuator being positioned to send water to the drain instead of the eyepieces. Fluor Idaho is evaluating methods to ensure all personnel understand how to correctly use eyewash stations. After the precipitating event, an inspector found that the coupler where the hydraulic hose quick-disconnect fitting threads into the spreader wedge was cracked, spraying out an estimated ½ cup of hydraulic fluid onto the worker. A medical evaluation cleared the worker to return to work.

Erroneous Inspection Records for Fuel Storage Canister Fabrication at INTEC. On February 18, 2021, a quality inspector noted discrepancies in inspection records related to inner and outer canisters used for transfer of EBR-II driver fuel from CPP-666 to the Radioactive Scrap and Waste Facility (RSWF). The inspector noticed an incongruity between the inspection record sheets and the canister fabrication drawings for recently fabricated safety-significant inner and outer canisters. The welds between the bottom plates and the canister cylinders were not documented as having been inspected. The problem apparently occurred when the fabrication drawings for the canisters were modified in February 2020. One of the changes was an option to weld two cylindrical sections together to form a single canister in the event a cylinder of sufficient length was not available. This option added a third (middle) weld to the canister, in addition to the upper weld (cylinder to top ring) and the lower weld (cylinder to bottom plate). The optional third weld has never been used for any canister fabrication. Inspection record sheets were not revised to recognize the optional middle weld. Inspectors continued inspecting the upper and lower welds and signing the inspection records as before, creating the appearance that only the upper weld and the nonexistent, optional middle weld had been inspected. Immediate actions included a step-back from inner and outer canister fabrications and withdrawal of authorization of technical procedures used for transfer of EBR-II driver fuel from CPP-666 to RSWF. Canister fabrication has been put on hold pending revisions to the inspection sheets and/or fabrication drawings.