

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 5, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Erin A. McCullough, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for October 2021

DNFSB Staff Activity. Board's staff members held weekly telephone calls to maintain awareness of site activities. On October 12, 13, and 28, Board's staff members facilitated interactions with Department of Energy (DOE) INL personnel pursuant to review activities for three open review agendas. None of the Board's staff members travelled to INL in October.

COVID-19 Update. Healthcare providers continue prioritizing which patients receive access to healthcare infrastructure, personnel, and supplies under the state-wide emergency "Crisis Standards of Care." While the State of Idaho has one of the lowest COVID-19 vaccination rates in the country, 93% of all DOE personnel and 69% of Fluor Idaho employees are fully vaccinated. Fluor Idaho mandates that all members of the Idaho Cleanup Project are to achieve full vaccination by December 8, 2021, to avoid disciplinary actions, including termination. The deadline for Fluor Idaho employees to request reasonable accommodations to this vaccination policy has been extended to November 4, 2021. If current staff vaccination rates remain nearly the same, strict enforcement of this vaccination policy may impact operational capabilities at INL.

Integrated Waste Treatment Unit (IWTU) Air Receiver Gasket Failure. On October 21, 2021, approximately one foot of a manway gasket in the plant air receiver failed while the IWTU was in Shutdown Mode. This produced an air leak such that IWTU Operations personnel could not isolate the air receiver from the air system. IWTU Operations personnel followed the Emergency and Alarm Response procedures related to the air compressor faulting or not running (EAR 284), since there were no specific procedures for unisolable air leaks. IWTU Operations personnel performed walk-downs to inspect for additional issues. Multiple groups within IWTU are evaluating an EAR revision that would address an unisolable air leak event and may also modify the air system to make it isolable.

IWTU "Warm Stand-By" Status. On October 25, 2021, IWTU Operations personnel transitioned the facility mode from "Shutdown" to "Warm Stand-By" as part of the "Start-Up" procedure. A superheater increases the fluidizing gas temperature for the Start-Up. Once the fluidizing gas increases the Denitration Mineralization Reformer (DMR) bed temperature to approximately 350 degrees Celsius, the IWTU Operations personnel will add wood-based charcoal and oxygen. The charcoal provides additional heat to the DMR bed, raising it to 500 degrees Celsius. Once the DMR bed temperature reaches 500 degrees Celsius, calcined coal will be added in lieu of charcoal, raising the DMR to its normal operating temperature of 650 degrees Celsius. Tentatively, IWTU Operations personnel plan to introduce simulat material in early November. A Contractor Readiness Assessment (CRA) for IWTU radiological operations will begin on November 30, 2021 during the simulat material run. The CRA report will tentatively be available during the week of December 13, 2021.