

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 4, 2022

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

DNFSB Staff Activity. The Board's INL cognizant engineer held weekly meetings to maintain awareness of site activities. Three of the Board's staff members visited INL in February for training and oversight activities.

COVID-19 Update. On February 15, 2022, the Idaho Department of Health and Welfare deactivated "Crisis Standards of Care" for all health districts in the state. Local COVID-19 caseloads decreased enough for INL to implement its Re-entry Plan on February 28, 2022.

Disruption of Nitrogen Gas (N₂) Supply to the Integrated Waste Treatment Unit (IWTU) at the Idaho Nuclear Technology and Engineering Center (INTEC) Partially Mitigated. The Board's INL report for January 2022 identified that qualified truck driver shortages disrupted routine N₂ deliveries to IWTU last month, causing operators to shut the facility down. IWTU requires between two and four truck deliveries of N₂ daily to support operations. On February 7, 2022, the N₂ supplier re-started deliveries, enabling the IWTU operators to perform start-up activities to bring the facility back into operations mode. Since start-up activities began, the N₂ supplier delivered adequate amounts of N₂ to IWTU to support plant operations. Communications continue between the N₂ supplier and IWTU operators to increase the reliability of N₂ deliveries.

Update on the INTEC New Waste Calcine Facility (NWCF) In-cell Crane. The Board's INL report for January 2022 explained how a collision between a shield door and the in-cell crane at the INTEC NWCF on January 13, 2022, substantially damaged the crane, rendering it out-of-service. The crane supports filter changes at the process off-gas filter bank, spool switching within the NWCF valve cubicle, maintenance activities for pumps that move the sodium-bearing waste from the INTEC Tank Farms to IWTU, and other repair activities within the NWCF valve cubicle. Operators are evaluating whether to repair, replace, or downgrade the crane. Current estimates suggest that repairing or replacing the crane will take more than six months. The contractor identified an alternate solution to use the NWCF Crane Maintenance Area (CMA) crane, which is located outside and above the valve cubicle. Using this CMA crane would require operators to remove the shield plugs above the valve cubicle for access.

Updates to Various INL Natural Phenomena Hazard Analyses. Safety basis documents for the Idaho Clean-up Project can rely on analyses that INL staff conduct for the site. INL staff are currently reviewing and updating their previous risk characterizations for seismic, volcanism, and flooding hazards. According to the INL Management Review Meeting Document for the First Period of Fiscal Year 2022, "... [the] Material and Fuels Complex and Critical Infrastructure Test Range Complex extreme precipitation flooding analysis is underway and is on time and on budget for completion in Fiscal Year 2022. Probabilistic Volcanism Hazards Analyses are ongoing, and the first workshop was held in January. The next working meeting is scheduled for March." There will be a probabilistic seismic hazards analysis briefing in April preceeding the final report. Updates to these risk characterizations may impact existing safety basis documents.