

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 2, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: Timothy L. Hunt, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for July 2019

Wildfire Operational Emergency. At around 1830 on July 22, 2019, a lightning strike about 10 miles northeast of the Manufacturing and Fuels Complex near INL's eastern boundary initiated a wildfire. The site's Emergency Operations Center was activated along with the Central Facilities Area Emergency Control Center. The so-called Sheep Fire was categorized as an operational emergency and eventually burned approximately 113,000 acres. Damage to structures/facilities was limited to commercial powerlines. Air samples were collected from across the site during the fire and results of the analyses showed no radioactive material release. Normal site operations resumed on July 25, 2019 when the fire no longer posed a threat to key nuclear facilities and fire officials reported the fire completely out, with no remaining hot spots, at 1800 on July 28, 2019.

Integrated Waste Treatment Unit (IWTU) Outage J. Workers completed ultrasonic inspection of the denitration mineralization reformer welds with no significant issues identified. Workers also removed the carbon reduction reformer (CRR) refractory bricks and completed the vessel inspection. They identified that welds on the upper brick ledge of the CRR were noncompliant and engineering is writing a nonconformance report to repair the welds per the existing drawing. Based on extensive testing of the process gas filter elements, the project has selected monolithic silicon carbide media as the best option. Outage J work activities were curtailed for two days during July as a result of the evacuation of IWTU and other facilities in response to the Sheep fire.

Accelerated Retrieval Project (ARP) V Status. Workers processed the last waste drums in ARP V and transferred them to the Advanced Mixed Waste Treatment Project for segregated storage. Results of the waste samples sent to an independent laboratory for analysis were within expected values for beryllium and depleted uranium, based on comparisons to similar ARP waste. Since there was no appreciable methane production while the drums sat in ARP V for a month, Fluor Idaho determined that special handling is not warranted. Fluor Idaho will now proceed with Resource Conservation and Recovery Act closure of ARP V, as directed by DOE-Idaho.

Lockout/Tagout (LO/TO) Violation at the Idaho Nuclear Technology and Engineering Center (INTEC). Two maintenance LO/TOs supporting boiler work at INTEC were removed from valves before the system had been restored following maintenance. The pipe unions for the surface blowdown line and propane line were yet to be reassembled when the locks and tags were cleared by utilities operations personnel. Upon recognizing that the locks and tags were removed prematurely, a utilities operator—at the direction of the utilities supervisor—inappropriately reinstalled a LO/TO lock with no tag on the propane isolation valve, a violation of the LO/TO procedure. The utilities supervisor should have contacted maintenance personnel to clear the LO/TO or hung administrative locks on the open air-gaps since installation and removal of LO/TOs is to be done by maintenance personnel only. Short-term corrective actions included replacement of the LO/TO lock on the propane valve with an administrative lock and tag, an extent-of-condition walkdown of current LO/TOs at INTEC, and an event briefing to maintenance and utility operations crews.