

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 5, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: Bradford V. Sharpless, Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for September 2018

DNFSB Staff Activity. Board's staff members R.G. Quirk, B.V. Sharpless, D. Shrestha, S. Sircar, and S.G. Thangavelu were on site at INL during September 24–28, 2018, to collect information related to the events of April 11–12, 2018, in which material was ejected from repackaged waste storage drums at the Radioactive Waste Management Complex's Accelerated Retrieval Project (ARP) V facility. This visit to INL was a follow-up to a previous staff visit, which occurred in July 2018, also for the purpose of reviewing the ARP V drum event. During the staff review team's visit, its members observed waste retrieval and repackaging activities at the ARP VIII facility and discussed its review agenda's lines of inquiry with Department of Energy Idaho Operations Office (DOE-ID) and Fluor Idaho, LLC (Fluor Idaho), personnel.

Board's staff member R.G. Quirk also conducted routine resident inspector-like oversight at INL and reviewed the implementation of interim controls associated with the ARP V waste drum event. He noted that Fluor Idaho personnel have continued to clean up the ARP V airlock, where the drum over-pressurization event occurred. Those repackaged waste drums not involved in the event were overpacked and transferred to the Advanced Mixed Waste Treatment Project (AMWTP) storage facilities. The four event drums and the drums with vacuumed waste remain in the airlock. Unprocessed waste remains in trays in the retrieval area.

The Board's staff provided an average of 1.9 person-weeks per month of on-site oversight for fiscal year 2018.

Advanced Mixed Waste Treatment Project. On September 1, 2018, the AMWTP Nuclear Operations Manager notified the DOE-ID Facility Representative (FR) that a member of AMWTP's Industrial Safety/Industrial Hygiene (IS/IH) staff had entered a Retrieval Contamination Enclosure (RCE) in the WMF-636 facility without the required training for his Powered Air Purifying Respirator (PAPR) hood on August 2, 2018. The RCE is a posted airborne radioactivity area.

On August 30, 2018, a more senior IS/IH technician (ISIH-1) was reviewing the training record for the IS/IH technician (ISIH-2) who entered the RCE without the required PAPR hood training. ISIH-1 noted that ISIH-2 was scheduled for PAPR hood training the end of September 2018, but recalled that ISIH-2 had previously been issued a PAPR hood. After confirming with ISIH-2 that this was correct and that he had entered the RCE on August 2, 2018, ISIH-1 notified the AMWTP Nuclear Operation Manager of the event on August 31, 2018.

During a fact finding meeting on September 4, 2018, the FR noted that several similar events previously occurred in the RCE just prior to the start of the current facility operating contract. Fluor Idaho managers subsequently declared this event to be ORPS reportable as a Management Concern due to the failure of personnel to follow MCP-2726, *Respiratory Protection*.