

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 7, 2016

**TO:** Steven Stokes, Technical Director  
**FROM:** Bradford Sharpless, Idaho Cleanup Project Cognizant Engineer  
**SUBJECT:** Idaho National Laboratory (INL) Report for September 2016

**DNFSB Staff Activity:** Board's staff members C. Beaty, A. Hutain, and B. Sharpless were on site during September 12–16, 2016, to observe and assess an emergency exercise. The exercise scenario involved a fire at the Radioactive Waste Management Complex's (RWMC) Accelerated Retrieval Project (ARP)-VIII. The staff members observed the exercise from the field, the Emergency Control Center, and the INL Emergency Operations Center. The Board's staff provided an average of 1.4 man-weeks of on-site oversight per month during fiscal year 2016.

**Sludge Repackaging Drums:** On September 14, 2016, at approximately 1430, workers discovered corrosion and an unknown substance on the surface of Sludge Repackaging drums stored at the Advanced Mixed Waste Treatment Project's Waste Management Facility (WMF)-636. Managers directed all personnel to exit the area. Radiological Control workers surveyed the exiting personnel and found no contamination. During a subsequent entry into WMF-636, workers performed surveys for volatile organic compounds and radioactive contamination. Both surveys returned negative results. Thus far, 48 drums have been identified with this corrosion condition. An investigation into the cause of the corrosion and the nature of the substance on the drums is in progress.

**Integrated Waste Treatment Unit (IWTU):** On September 8, 2016, an IWTU electrician was observed potentially entering an arc flash boundary during annual preventive maintenance (PM) on the IWTU Uninterruptible Power Supply (UPS) system without proper arc flash Personnel Protective Equipment (PPE). The PM was performed on the IWTU UPS system with a vendor present. During performance of the zero energy checks, only the primary electrician performing the work was dressed in the required arc flash PPE. The electricians elected to hang a rope across the open doorway for the room, utilizing the entrance to the room as the work boundary, instead of defining the 72-inch flash boundary in front of the cabinet. Only personnel inside the room and within the 72-inch flash boundary would have been required to be in arc flash PPE when the cabinet door was opened and the batteries still connected. Inside the room, the Department of Energy's Facility Representative observed the vendor standing back away from the work area, and the two electricians at the work area, with only one wearing the PPE. No potential electrical exposure or personnel injuries resulted from this discovery.

**Radioactive Waste Management Complex:** On September 25, 2016, the Fire Alarm Center at INL's Central Facilities Area notified the RWMC Nuclear Facility Manager of a loss of fire watch cameras in WMF-1621 (ARP-VIII) at RWMC. A two-hour fire watch was put into place as a compensatory measure. Upon investigation, workers discovered a power line that had failed, one end had fallen to the ground, and there were indications that arcing had occurred in the vicinity of where the line had fallen. No injuries or personnel contact with the live electrical line occurred.