

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 5, 2016

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

DNFSB Staff Activity: Board's staff member B. Sharpless and Board members J. Connery and B. Hamilton were on site during July 18–22 for a site familiarization visit. The Board members met with INL leadership personnel, including those from the Department of Energy Idaho Operations Office and Fluor Idaho, LLC (Fluor), the management and operating contractor for the Idaho Cleanup Project. The Board members walked down INL's defense nuclear facilities, including the Fuel Manufacturing Facility at the Materials and Fuels Complex, the Integrated Waste Treatment Unit, portions of the Idaho Nuclear Technology and Engineering Center, the Advanced Mixed Waste Treatment Project (AMWTP), and the Radioactive Waste Management Complex (RWMC). The Board's staff provided an average of 1.4 man-weeks of on-site oversight per month for the first ten months of fiscal year 2016.

Advanced Mixed Waste Treatment Project: On July 7 at approximately 1700, the INL Fire Department responded to fire alarms at AMWTP's Advanced Mixed Waste Treatment Facility (AMWTF). Firefighters searched the building but found no fire or cause for the alarms. RWMC Life Safety personnel subsequently performed troubleshooting on the alarm systems.

At 2000, the Plant Shift Manager notified AMWTP's Department of Energy Facility Representative that the cause for the alarms had been identified. The alarms were triggered by operators who were moving drums inside AMWTF and unknowing hit a fire alarm pull station, damaging it in the process.

This event caused the dry pipe fire suppression system to be charged with water in several contamination areas, including the North Boxline, South Boxline, and Hot Maintenance area. Fire suppression system piping was also charged in multiple clean areas of AMWTF, including the control room. Managers paused operations at AMWTF until the affected fire suppression systems could be drained. RWMC Life Safety personnel are investigating the possibility of modifying the alarm pull station(s) to prevent a repeat of this event.

On July 28, a Retrieval Operator was participating in waste drum retrieval activities inside the Retrieval Containment Enclosure (RCE) within AMWTP's Transuranic Storage Area-Retrieval Enclosure. As the Retrieval Operator was preparing to exit the RCE, a Radiological Controls Technician (RCT) noted that the hose on the Retrieval Operator's Powered Air Purifying Respirator (PAPR) had become detached from the device's motor assembly. The RCT expedited the Retrieval Operator's exit from the RCE.

Contamination surveys performed on the PAPR assembly and inside the hood and hose showed less than Minimum Detectable Activity present. Going forward, all workers entering the RCE will use a more robust taping method to prevent the PAPR hose from inadvertently disconnecting.