

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 5, 2015

**MEMORANDUM FOR:** Steven Stokes, Technical Director  
**FROM:** Bradford Sharpless, Idaho Cleanup Project Cognizant Engineer  
**SUBJECT:** Idaho National Laboratory (INL) Report for May 2015

Board's staff member R. Quirk was on site at INL during May 18–21, 2015, to observe Department of Energy (DOE) Headquarters personnel train approximately 50 DOE Idaho Operations Office (DOE-ID) and contractor personnel on the revisions in DOE-STD-3009-2014, *Preparations of Nonreactor Nuclear Facility Documented Safety Analysis*, and DOE-STD-1104-2014, *Review and Approval of Nuclear Facility Safety Basis and Safety Design Basis Documents*.

**Advanced Mixed Waste Treatment Project (AMWTP).** On April 25, 2015 (reported in ORPS on May 6, 2015), workers at AMWTP's Advanced Mixed Waste Treatment Facility (AMWTF) experienced a "near miss." Two maintenance technicians were replacing a camera in AMWTF's north boxline. While reinstalling the camera, it disconnected from the lifting cable and fell to the boxline floor.

The pre-job briefing for the camera replacement activity discussed the hazard controls in the work package for hoisting and lowering the camera. Hazard controls included the use of a basket-type assembly (serving as a protective barrier against a falling camera) above the hoist/lowering mechanism operator, or alternatively, the operator could stand to the side of the hoist/lowering mechanism while it is operating. Initially, neither of these controls was employed, placing one of the technicians at risk of being struck by a falling camera. The camera detached from the camera housing assembly and glanced off the bubble suit hood worn by one of the technicians. The Job Supervisor in Training (JSIT), who had observed the glancing blow to the technician's hood, failed to immediately notify the Maintenance Shift Supervisor (SS) of the event. After verifying that no damage had occurred to the bubble suit, the technicians, with JSIT concurrence, decided to complete the maintenance activity.

While attempting to reinstall the camera, the hoisting/lowering cable broke, and the camera fell to the floor. This time, the technicians were standing outside of the fall zone.

**Integrated Waste Treatment Unit (IWTU).** On May 14, 2015, IWTU's nuclear facility manager (NFM) declared a potential inadequacy in the safety analysis (PISA) at IWTU. The NFM declared the PISA due to the discovery of new information indicating that normal IWTU facility operations may result in process material being transferred from vessels within the process confinement area to the sample cell, which is not included in the process confinement area.

During IWTU operations, the process confinement area protects workers from exposure to radioactive and hazardous materials in the event of a loss of primary confinement. The IWTU process confinement area, as defined in the facility's safety analysis report (SAR), is a safety-significant system, structure, or component. The IWTU sample cell is currently not included in the SAR definition for the process confinement area, and therefore is not bound by SAR-related access controls during IWTU operations.