

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 22, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: E. Freeman, D. Gutowski, and J. Kemp, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending November 22, 2024

Plutonium Facility–Fire Protection: Last Tuesday morning, workers discovered evidence of an overnight fire in a laboratory room in the Plutonium Facility. A lighting fixture failed and dripped melted and burned plastic onto the floor and glovebox components. The fire self-extinguished and did not actuate any sprinklers due to its small size; therefore, workers did not identify the condition and debris until the morning. Access to this room is still limited and is being controlled by operations center personnel until repairs are made. There have been other issues with lighting fixtures throughout the laboratory over the past few years that resulted in recommendations to ensure that there are no product recalls on lighting equipment and that compatibility of equipment is always verified. This incident also demonstrates the importance of a robust combustible loading program as there were no extraneous combustibles ignited by the dripping plastic. Finally, there is an ongoing project to install heat and smoke detectors to improve detection capabilities.

Plutonium Facility–Radiological Control: On Tuesday, there was a skin contamination event in a laboratory room in the Plutonium Facility. A worker alarmed contamination detection equipment while monitoring upon exiting the glovebox gloves. He then noticed liquid drops on the floor and a wet spot on the chest of his coveralls. Responding radiological control technicians identified contamination on the individual's chest area and moved him to the decontamination room. No other workers in the room were contaminated and there was no evidence of airborne contamination. In the decontamination room, the radiological control technicians decontaminated the individual with multiple showers and wipes. Final surveys of the individual were performed at Occupational Medicine with more sensitive equipment. Facility personnel are investigating how contaminated water was able to exit the glovebox. The process in the glovebox involved cutting nuclear materials containers with a water-cooled saw to evaluate their condition. That process can splash water inside the glovebox. This glovebox has an older type of windows, which is held in with a gasket rather than bolted like other glovebox windows. The gasket will be thoroughly inspected following the window change to inform whether additional actions should be taken with similar windows. Additionally, personnel are evaluating increased usage of splash shields when performing wet cutting.

Waste Characterization, Reduction, and Repackaging Facility (WCRRF): On Monday, a subcontracted team completed the onsite portion of the contractor readiness assessment (CRA) for restarting WCRRF as a hazard category 3 facility to size reduce and package oversized items. They provided an out-brief of the initial results to site management. The CRA team assessed thirteen objectives and ninety-four criteria required to operate the facility safely. The assessment concluded that four criteria were not met and identified two pre-start and two post-start findings. The pre-start findings included deficiencies in the startup plan, which did not include all required activities and several operations procedures that could not be performed as written. The post-start findings included issues with the clarity, intent, and consistency between the Safety Analysis, the Technical Safety Requirements, and the Fire Hazards Analysis related to the combustible exclusion zone surrounding the facility and some facility labeling not meeting the requirements of the site labeling procedure.