

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 15, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for the Week Ending March 15, 2024

Plutonium Facility–Operations: Last Thursday, workers accidentally placed a piece of equipment that had been removed from a laboratory room on the pressure plate for a decontamination shower. The shower actuated and water flowed until it overflowed the shower berm, migrated into a contaminated pump room, and started seeping through the walls and floors into adjacent rooms and the basement. The impacted locations were posted as contamination areas and are being decontaminated. There have been several other high impact inadvertent water flow events in the Plutonium Facility over the past few years (see 3/17/2023, 7/23/2021, 4/2/2021, 11/30/2018, 3/16/2018 reports).

Facility personnel determined that the newly installed glovebox that contains high levels of volatile organic compounds may be a flammability concern (see 12/22/2023 report). The box has been isolated since the hazardous materials response last year and may contain levels of organic vapors that would create a flammable atmosphere if mixed with air. Facility personnel are developing a recovery plan to safely connect the box to the ventilation system and purge the organic vapors. Meanwhile, safety basis personnel have entered the new information process to determine whether this condition is covered in the facility's safety basis.

Area G: Last Thursday, a radiological control technician (RCT) inadvertently removed radioactive survey smears from site. The smears were bagged, and the outer bags were surveyed prior to removal from the contamination area in the Dome 375 Permacon. Last Friday, another RCT called the first one to locate these smears for counting. They then realized the smears had been left in a vest pocket and removed from the site in a personally owned vehicle. DOE's Radiological Assistance Program team was activated to recover the material from offsite. They found that the smears remained in the bags and found no evidence of any contamination spread.

N3B personnel reviewing potentially energetic containers to support the new safety basis discovered that a standard waste box had been moved from Dome 33, where potentially reactive drums are segregated, to Dome 232 in April 2023. This standard waste box is listed in the Justification for Continued Operations (JCO) as requiring additional controls as it contains potentially reactive drums. N3B personnel determined that the move in April 2023 was done without complying with the additional controls in the JCO for moving potentially reactive containers. They have developed a plan to return the drum to Dome 33 using all required controls as soon as possible.

Plutonium Facility–Safety Basis: On Thursday, Triad submitted a revised safety basis addendum supporting receipt and packaging of large quantities of heat source plutonium to the NNSA Field Office. This revised addendum is intended to address recent comments from the field office (see 2/16/2024 report). If approved, this addendum will close out the current evaluation of the safety of the situation in place for these heat source rooms and support the planned receipt and repackaging activity.