

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 13, 2020

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending March 13, 2020

Emergency Management: On Monday, Triad activated the emergency operations center in a monitoring mode capacity to support COVID-19 preparedness activities, including refinements on minimal essential staffing plans. Laboratory personnel are actively working to address the State of New Mexico's public health order prohibiting gatherings of more than 100 people and the closure of all public schools for at least three weeks.

Plutonium Facility–Emergency Management: On Monday evening, workers in the basement reported a smoky haze to the operations center. Facility operators directed them to the other half of the facility, visualized smoke using video cameras, pulled a fire alarm, and made proper emergency notifications. In parallel, an engineering manager, who was in the operations center, entered the basement to assess the source of the smoke. He noted that there were no continuous air monitor (CAM) alarms and was aware of a programmatic vacuum pump that was being operated in a compromised condition to support a programmatic need. He quickly identified a failed plastic tubing line on the pump that was releasing aerosolized oil, de-energized the pump at the local disconnect, and departed the facility to meet the fire department. Fire fighters entered the basement in full protective gear with self-contained breathing apparatus and confirmed the situation was safe. Of note, the engineering manager indicated that he would not have entered the basement had a smoke detector alarmed or he smelled smoke; however, the smoke detectors in the basement are limited to certain enclosed areas and do not provide broad coverage of the basement. Phase III of the TA-55 Reinvestment Project includes scope to remedy this gap in coverage.

Plutonium Facility–Glovebox Safety: On Wednesday, facility personnel conducted a fact-finding on a recent glove breach on a plutonium-238 processing glovebox that significantly contaminated (about 300k dpm alpha) an operator's modesty clothing and alarmed a CAM. Participants surmised that the operator did not fully survey all areas of his coveralls that had potentially contacted the glovebox exterior which resulted in him carrying the contamination to another work area adjacent to the CAM. Triad management has observed that incomplete contamination surveys has been a recurring problem and is developing improved training and assessing placement of additional personnel contamination detectors throughout the facility.

Another important aspect of this event is the location of the glove breach. The location is similar to a breach that occurred last month. That breach was traced to a batch of gloves where Triad personnel observed multiple defects. Subsequent to this latest breach, management took action to promptly assess the installed population for gloves from this batch and either replace or thoroughly inspect the glove prior to use. Corrective actions from the previous event to evaluate opportunities to strengthen inspection processes, including as part of installation, remain underway.

Federal Oversight: On Wednesday, EM Field Office personnel were provided training on oversight surveillance report preparation and the use of the issues management system. The training comes after quality assurance support personnel noted problems encountered during preparation of last month's formal surveillance report transmittal (see 3/6/2020 report). EM Field Office personnel were also recently provided refresher training on stop/pause work after confusion arose during a field demonstration.