

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 3, 2016

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending June 3, 2016

**Weapons Engineering Tritium Facility (WETF)–Operations:** On Tuesday, an operator was performing a surveillance on the tritium monitoring system when he operated an incorrect switch on the back of a tritium monitor. After determining the incorrect switch was functioned, the operator inappropriately repositioned the switch without stopping and informing management as required. This action also activated the facility evacuation alarm and all personnel evacuated to the facility control room. The same sequence of events occurred in December 2015 (see 1/30/2016 weekly). In the previous event, WETF management determined that the appropriate corrective action was to label the switches. In the current event, the switches were labeled; however, operators indicated that the labels cannot be visualized while performing the work because of the constrained visual access to the back of the panel. WETF management is evaluating more effective means of ensuring operators can easily assure they are positioning the required switch. The Site Representatives note that in the recent instance, the operators executed the associated alarm response procedure until they could verify that there was not a release of tritium into the facility—an improvement from the December 2015 event response. WETF management also convened a hot-wash to discuss this response. Participants noted that due to recent network security issues, there is currently limited means of external monitoring facility alarms and indications (e.g., from the Facility Incident Command).

**Area G–Inappropriately Remediated Nitrate Salts (RNS):** On Friday, Area G operators completed installation of the high capacity filter vents onto the RNS waste drums. This action is the final physical modification of the RNS waste drums required to meet the safe storage requirements identified in the currently implemented revision 5 of the Evaluation of the Safety of the Situation. NNSA and EM personnel continue to review revision 6, which covers the path forward for the pipe overpack containers with RNS waste, the wildland fire threat, and the aircraft crash scenario for Dome 375.

**Area G–Emergency Management:** LANL Fire Protection personnel recently worked with the Los Alamos County Fire Department (LAFD) to correct the post-start finding related to pre-incident planning for the RNS waste (see 5/13/16 weekly). LAFD recently revised the pre-incident plan for Dome 375 to correct 20 of the 21 identified issues including: providing an accurate description of the dome’s current function, contents, and associated hazard (i.e., storage of RNS waste); updating after-hours and other contact information; and correcting information on available exits, floor slopes, and detection equipment. Of note, this revision did not include an update on strategies for response to events associated with the unique hazards of the RNS wastes. As such, there continues to be no documented guidance on tactics responders should use for emergencies involving these materials. NNSA Field Office personnel are currently engaging with LAFD to rectify this situation.

**Emergency Management:** Late last month, LANL management issued the after-action reports from the 2<sup>nd</sup> quarter exercise of the Emergency Operations Center and the chlorine release exercise at the Plutonium Facility (see 4/1/16 weekly). For the former, they determined that all objectives were met with six opportunities for improvement, including the need to formalize a process for collapsing protective actions and protective action recommendations based on actual field data. For the latter, they identified two findings regarding exercise simulation and facility command not developing incident objectives. There were also seven opportunities for improvement, two notably associated with personnel ignoring and/or confusion with direction to shelter-in-place.