

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 21, 2009

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending August 21, 2009

Transuranic Waste Operations: Last week, a transuranic waste drum was mistakenly transferred from Area G to WCRR. The identification number on the mis-transferred drum was one digit different than the drum that was intended to be sent to WCRR. Six separate proceduralized verification checks on the drum identification number, performed by three different organizations, all failed to discover the discrepancy. The mis-transferred drum violated Transportation Safety Document TSRs during onsite shipment and WCRR TSRs when it was introduced into the facility.

Also last week, personnel performed preventive maintenance inside WCRR using two lubricants while the facility was in Warm Standby mode. Both lubricants are categorized as flammable liquids. The work planning and approval process did not recognize that using these flammable liquids inside the facility while inventory was present would violate a limiting condition of operation (LCO) associated with the combustible loading TSR control. As a result, the applicable LCO was never entered, as required. Action statements associated with the combustible loading LCO require inventory to be placed in a safe configuration immediately and require a fire patrol to be established within two hours. Facility management asserted that inventory remained in a safe configuration (i.e. inside sealed Type A waste drums) throughout the evolution and that the flammable liquids remained in the facility for less than two hours. Because no action statement completion times were exceeded (albeit fortuitously), facility management concluded that this event did not constitute a TSR violation.

Finally, during transuranic waste operations on Wednesday, an airborne contamination release occurred in the WCRR processing area causing multiple continuous air monitor (CAM) alarms (the highest CAM measurement exceeded 3300 DAC-hrs). All eight personnel in the area were wearing anti-contamination personnel protective equipment (PPE), including respirators. Personnel responded per procedures to place work in a safe configuration and exit the area. Although PPE contamination was identified on 5 of the 8 workers, surveys indicated no skin contamination and subsequent nasal smears were negative. Based on PPE contamination identified on operators and subsequent facility surveys, it appears that the release occurred as operators were overpacking an empty 55 gallon drum whose contents had been removed, sorted and placed in a daughter drum. It appears likely that the plastic sleeve and tape used on the 55 gallon drum for contamination control failed during the overpacking activity. Given the extent of contamination spread, facility decontamination efforts are expected to continue into next week.

Weapons Engineering Tritium Facility (WETF): Implementation of safety basis changes and other readiness activities to allow limited operations that do not involve the tritium gas handling system are in progress. Resumption of these limited operations will support inventory reduction and will allow overpacking (in credited secondary containers or gloveboxes) of approximately 70 containers that may exceed their maximum allowable working pressure and do not currently have any secondary confinement. These limited operations are scheduled to begin in September. The NNSA site office is also reviewing safety basis changes that would support tritium gas handling system activities. A Laboratory Readiness Assessment is planned to support resumption of this activity in October.