

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 20, 2008

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending June 20, 2008

Davis was offsite this week.

Weapons Facilities: A follow-up critique was held on emergency response actions associated with last week's wildland fire caused by powder gun operations at TA-39. Firing site personnel became aware of a problem almost immediately subsequent to the test shot and when the brush fire was observed, personnel took action to fight it. After 5 to 10 minutes of unsuccessful attempts to control the spreading brush fire, a series of calls was initiated through 2 separate firing site access control centers that ultimately resulted in Fire Department notification and response (site rep weekly 6/13/08).

In response to this event, the laboratory has implemented compensatory measures for high explosive operations at firing sites and initiated a review of shot authorization and control prescription processes. Under the compensatory measures, senior management authorization is required to conduct any shot under particularly hazardous fire conditions (i.e. 'Red Flags') and expectations have been strengthened for having pre-staged Fire Department coverage for shots.

Last week a fire also occurred in the Weapons Material Laboratory (TA-16-304) during an electric oven operation to destroy a plastic classified part. When checking the status of the evolution, a technician observed a small fire inside the oven. Upon discovery, the technician called the oven operator who reported back to TA-16-304 from another facility. By this time, the oven fire had grown too large to be safely suppressed by facility personnel. The individuals exited the facility and notified the Fire Department, which responded and extinguished the fire.

Emergency Response: The events above appear to highlight an opportunity for improvement in communicating and implementing the expectation to call 911 upon discovery of a fire and prior to personnel initiating any actions to fight or control fires themselves.

Radioactive Liquid Waste Treatment Facility (RLWTF): This week, the RLWTF declared an iTSR violation. The iTSR requires that a monthly combustible loading surveillance be performed using approved criteria. These criteria are provided via memo by the Fire Protection Engineering group. In November 2007, a new memo with more restrictive combustible loading surveillance criteria was issued; however, this iTSR-affecting criteria change was not formally controlled. The engineer who regularly performs this surveillance was not aware that the criteria had changed and since the implementing procedure did not explicitly specify the combustible loading criteria, the surveillance continued to be performed using the less restrictive criteria from the superseded memo. Upon discovery, the facility revised the implementing procedure and re-performed the surveillance. A limiting condition of operation was entered and excess combustibles were removed from RLWTF.

Training: The NNSA site office conditionally approved a Training Implementation Matrix (TIM) for the RLWTF. Development of compliant and approvable TIMs has been a persistent challenge for LANL, so approval of the RLWTF TIM is a significant step toward establishing compliance with DOE training requirements and can be used as a model for generating other nuclear facility TIMs.