

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 19, 2010

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending March 19, 2010

Transuranic Waste Operations: There have been three glovebox glove breaches or failures at the WCRR repackaging facility in the last two weeks. Prior to this series of events, unplanned glovebox glove openings had been infrequent at WCRR. The most recent event, which occurred on Wednesday, resulted in a glovebox worker receiving skin contamination (1600 dpm/100 cm²) with subsequent nasal smears positive for low levels of alpha radioactivity (42 dpm). Facility management has responded by suspending WCRR glovebox operations while glovebox glove inspection protocols are strengthened.

Transuranic Waste – Sort, Segregate, Size Reduction and Repackaging (SSSR): Late last year, the site office approved a safety basis change for Area G to support SSSR operations in five structures (e.g., TA-54-412 and dome structures). The safety basis change included material-at-risk limits for open waste of 12.5 PE-Ci equivalent combustible waste for all of Area-G and 2.5 PE-Ci for each individual SSSR operation. During development of the Area G Basis for Interim Operation, LANL identified a defense in depth control for separation distance between metal and non-metal transuranic waste containers and the SSSR operations to help prevent fire propagation. This week, LANL submitted a safety basis change that will include the separation distance control in the current Area G safety basis (site rep weekly 8/7/09).

Radioactive Liquid Waste Operations: This week, LANL declared the Waste Management Risk Mitigation tank farm operational as a radiological facility to receive low level waste during emergency conditions. This action provides 250,000 gallons of storage capacity that could be used for the following three entry conditions: 1) RLWTF is operable but overflow of the influent storage tank is imminent (e.g., large low level liquid influent due to fire deluge system operation at a generator facility), 2) RLWTF is not operable and overflow of the influent tank is imminent (e.g., major equipment failure) and 3) lab-wide evacuation (site rep weekly 10/30/09).

Weapons Engineering Tritium Facility: In February, LANL requested a temporary safety basis change to allow introduction of low-pressure inert gas into portions of the tritium systems in order to calibrate instruments and to verify compliance with safety basis requirements (i.e., hazardous material protection and pressure safety programs). LANL also requested an extension for a Justification for Continued Operation associated with exceeding the Maximum Allowable Working Pressure for two Standard Tubs (this issue will not be resolved prior to when the JCO expires). This week, the site office approved the temporary safety basis change and the JCO extension. The JCO now expires in March 2011 or when processing is complete, whichever is sooner.

The site office also approved a temporary safety basis change to address facility combustible loading issues that resulted in a TSR violation and Unreviewed Safety Question. This temporary safety basis change will remain in effect until June 30, 2010 or until the safety basis combustible limits are changed permanently based on appropriate engineering analysis.