

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 5, 2008

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending December 5, 2008

Davis was offsite this week.

Plutonium Facility: A corrective action plan has been issued to address judgments of need developed during the LANL accident investigation of the August 2008 contaminated puncture wound. The puncture wound was sustained by a Plutonium Facility operator who was using a mechanical cutting device called a nibbler to prepare a stainless steel sample. In addition to the judgments of need, development of the six individual 'Action Plans' also considered information resulting from on-going efforts to analyze all unplanned glove openings at the Plutonium Facility.

The approved Action Plans involve: • revising the Plutonium Facility Design Change Package process to require more participation from glovebox workers in equipment planning and design, and requiring consideration of remote and automated approaches, • piloting and evaluating use-every-time procedures that incorporate Human Performance Improvement principles for a process that involves latent sharps hazards, • restructuring the Plutonium Facility Glovebox Glove Integrity Program to effectively monitor and analyze glove opening data to define better controls and glove properties, • review existing procedures for working with hard materials to ensure adequate controls are provided, • revising Plutonium Facility procedure writing guidance to reflect inspection and latent sharp mitigation expectations for operations involving hard materials, and • reviewing these Action Plans for applicability at the WCRR repackaging facility which was asserted to be the only other LANL facility faced with similar hazards (site rep weeklies 10/3/08, 8/29/08, 8/15/08).

Conduct of Engineering: The pace of progress for a number of important elements of Conduct of Engineering and the broader Formality of Operations initiative has been limited by the availability of cognizant system engineers (CSE). This week, LANL management announced a significant incentive program designed to attract qualified engineers to voluntarily become CSEs. The incentive program seeks to quickly fill the current nuclear facility staffing shortfall of approximately 20 CSEs. The program involves a bonus for becoming a CSE, a bonus for timely completion of CSE qualifications, and a large bonus for remaining a qualified CSE for three years. To help reduce attrition, the large retention bonus will also be available for some existing CSEs.

Chemistry and Metallurgy Research Building (CMR): Wing 9 hot cell work in support of the Advanced Nuclear Fuel Cycle Initiative (AFCI) is not currently reflected in the programmatic baseline for post-2010 operations at CMR. The Department of Energy's Office of Nuclear Energy (NE-51) recently sent a letter to the NNSA site office attesting that CMR was uniquely suited for performing mission-critical AFCI work related to fuel research, development, and qualification. In response, the site office has proposed a path forward in which the AFCI program will fund the development of an addendum to the CMR Documented Safety Analysis being prepared for post-2010 operations. This addendum is intended to allow decision-makers to clearly understand the scope and material-at-risk associated with proposed AFCI activities and the incremental hazards and risk posed to workers and the public should the AFCI scope be incorporated into the programmatic baseline (site rep weekly 5/23/08).