

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 30, 2008

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending May 30, 2008

The staff held a teleconference on the Radioactive Liquid Waste Treatment Facility Replacement.

Formality of Operations: NNSA has accepted formal implementation criteria for each of the four elements of Formality of Operations (operations, engineering, maintenance, and training). Implementation is divided into two phases, 'core' and 'mature', and separate criteria are provided for each phase. Core implementation represents minimum compliance with DOE requirements and mature implementation correlates to the establishment of robust programs that incorporate best practices. Once a nuclear facility declares it has implemented any of the four elements of Formality of Operations, an independent review will be performed using the accepted implementation criteria.

Facility Operations Directors have revised their Formality of Operations implementation schedules based on the new criteria. The most significant schedule impacts were for conduct of engineering, where core implementation criteria now include additional requirements for technical baseline reconstitution and control, and the performance of operability determinations for credited controls. The last facility scheduled to achieve core implementation of conduct of engineering is the Plutonium Facility in mid-2011. This date is driven by the time needed to develop or revise technical baseline documentation such as piping and instrumentation diagrams; however, the Plutonium Facility expects to meet all other conduct of engineering requirements by late-2009 (site rep weekly 3/28/08).

Chemistry and Metallurgy Research Building (CMR): Last week, LANL declared a Potential Inadequacy in the Safety Analysis (PISA) at CMR based on inconsistencies between the Interim Technical Safety Requirements (ITSRs) and National Fire Protection Association (NFPA) 72, *National Fire Alarm Code*. These inconsistencies involve ITSR surveillances to ensure adequate backup power and audibility for the CMR Fire Alarm System and were identified by an NNSA site office Safety System Oversight assessment. CMR facility management promulgated a standing order to address these issues pending evaluation via the unreviewed safety question (USQ) process.

Transuranic Waste Operations: As previously reported, Area G personnel were evaluating a number of issues related to the safety-significant lightning protection system (LPS). One concern related to whether LPSs protecting all Area G waste storage domes complied with NFPA 780 *Standard for Implementation of Lightning Protection Systems*, as required, due to unbonded metallic waste drums staged in proximity to LPS components in some domes. Additionally, the required in-service inspection for this system is vague, referencing NFPA 780 rather than providing more detailed and explicit inspection criteria to verify system function. Ultimately, LANL declared a PISA. As part of the evaluation triggered by the PISA process, LANL recognized a need to evaluate potential impacts to the WCRR repackaging and RANT shipping facilities that have similarly vague in-service inspections for their credited LPSs (site rep weekly 5/9/08).

Safety Basis: For the case discussed above, NNSA site office interaction with LANL was required prior to PISA declaration. In addition, the PISA was declared several weeks after issues were initially identified. Timely and conservative PISA evaluations are an important part of the overall USQ process for managing and maintaining the safety envelope for operating nuclear facilities.