

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 30, 2010

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending April 30, 2010

Chemistry and Metallurgy Research (CMR) Building: LANL recently began construction activities for the Permacon structure in Wing 9 that will support the Confinement Vessel Disposition project. This project will provide the capability to initially perform gross removal of transuranic material from the 6' confinement vessels (one at a time) with follow-on activities to reduce contamination such that the vessels can be dispositioned as low level waste. Construction activities are expected to continue through this year followed by startup and readiness activities (at this point, contractor and NNSA operational readiness reviews are expected). The first vessel is scheduled to be processed in late-2011.

Safety Basis: This week, LANL resubmitted the CMR Documented Safety Analysis and Technical Safety Requirements that will support post-2010 operations. The resubmittal is expected to resolve previous site office comments provided in March. An NNSA Safety Evaluation Report is expected in late-May followed by LANL implementation confirmed via Implementation Verification Reviews to be completed by the end of calendar year 2010.

Other key safety basis documents for LANL nuclear facilities are pending submittal. A revised DSA and associated TSRs for the Plutonium Facility are scheduled to be submitted for NNSA review and approval in mid-May. These documents will serve as an Annual Update to the 2008 safety basis that is in the final stage of implementation at the Plutonium Facility. Additionally, a Basis for Interim Operations (BIO) and supporting TSRs for Area G are scheduled to be submitted to NNSA in June. Area G is currently operating under a DSA that was approved in 2003.

Plutonium Facility: This week, Plutonium Facility personnel resumed the campaign to retrieve ²³⁸Pu-bearing Russian Product Containers (RPC) from the vault water bath and overpack them in safety class Fuel Storage Outer (FSO) containers. About 60 RPCs were overpacked in FY-09 before the effort was paused to allow testing, qualification and procurement of an even more robust safety class container known as the Next Generation FSO. Prior to resuming overpack operations this week, approximately 100 RPCs remained in the vault water bath. Program personnel intend to complete the RPC overpack campaign by June 30th, using a combination of FSO and Next Generation FSO containers (Board letter dated 4/7/09).

Work Control: LANL recently completed a project execution plan for moderate hazard research and development safety improvements in response to a January site office letter that expressed concerns about recent safety incidents at the laboratory. The plan defines the approach for achieving hazard identification and evaluation that appropriately engages workers, operates within a defined safety envelope with well-understood risks for each experiment and accommodates the dynamic nature of research and development activities. Twelve baseline sub-projects have been identified with completion dates through the end of this fiscal year including plans to improve subject matter expert and peer review involvement in work control/hazard identification, pre and post-job briefs, hazard analysis training and lessons learned (site rep weeklies 3/5/10, 1/22/10).