DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 30, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending May 30, 2014

Management: Field office and laboratory management resources are challenged with a number of significant efforts:

- Operations at the Plutonium Facility remain mostly paused due to criticality safety and conduct of operations issues. The war room is expected to support seven day a week efforts to resume a large number of fissile material operations before the end of June 2014.
- LANL continues to maintain its war room for Area G and has separately appointed a recovery manager to organize efforts to investigate the hazards of the nitrate salt wastes and support safe recovery both locally and at the Waste Isolation Pilot Plant.
- Weapons Engineering Tritium Facility management has a task force underway to resolve operability issues with the Oxygen Monitoring System that have lingered since October 2013. Operability is required to restart tritium gas handling activities necessary for risk reduction efforts that have been dormant since 2010.
- Chemistry and Metallurgy Research building management is working through closure of 29 pre-start items in order to commence nuclear operations for the Confinement Vessel Disposition project.
- Management has initiated an investigation of a fire event and associated response at the LANSCE accelerator facility. Though not a defense nuclear facility, this event touches on several safety management programs that impact the entire site (e.g., fire protection, conduct of operations, and maintenance).

Area G–Nitrate Salt Waste: Area G personnel completed the relocation of the unremediated nitrate salt drums into the Dome 231 Permacon. All known nitrate salt drums at LANL are now located in Permacons. Chemistry and Weapons Experiments division experts have also initiated an experimental program to gain an understanding on the potential formation of energetic materials involving the nitrate salts, wheat-based kitty litter, nitric acid, and a neutralizing agent that were utilized as part of the remediation process.

Fire Protection: Last month, the field office transmitted to LANL management the results of a triennial assessment of the Fire Protection Program. Overall, the field office determined that three of six objectives were met and identified 15 findings and 20 observations for corrective action. Findings of particular interest include the following: the Fire Protection Program does not appear to have adequate resources to maintain a compliant program; fire protection engineers are not part of formal structured training plan to improve and maintain necessary job skills; reviewers continue to find many repeat issues from previous triennial assessments; a mechanism has not been implemented to ensure fire protection requirements are properly incorporated into new design and construction projects; corrective maintenance does not support timely restoration of impairments; the Radiological Laboratory Utility Office Building does not meet or exceed applicable building code; certain glovebox fire suppression systems are not UL-listed or otherwise approved for Class A fires; the baseline needs analysis has not been updated since 2009 contrary to the three year update requirement; and pre-incident plans do not contain all of the necessary information to support timely and effective response.