

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 23, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending May 23, 2014

Area G–Nitrate Salt Waste: Today, the LANL Director named Dr. Terry Wallace as the laboratory’s lead for coordinating efforts related to understanding the radiological release event at the Waste Isolation Pilot Plant (WIPP) and the associated implications for the transuranic waste currently stored at Area G. Dr. Wallace is the Principal Associate Director for Global Security.

In addition to the immediate actions taken in response to last week’s declared Potential Inadequacy of the Safety Analysis (see 5/16/14 weekly), LANL personnel have taken the following measures:

- Completed the relocation of all over-packed treated nitrate salt waste drums into a Permacon enclosure that affords fire suppression, a metal confinement structure, continuous air monitoring for airborne radioactive material, temperature control, and HEPA-filtered ventilation.
- Elected to also relocate all untreated (those without added organic kitty litter) nitrate salt waste drums into a Permacon.
- Strengthened emergency preparedness planning for the nitrate salt waste, including issuing standing orders to guide hourly operator rounds, development of a pre-incident response plan, and starting targeted walkthroughs with fire department and emergency response personnel.
- Established two independent teams of subject matter experts to review the available information, as well as initiated outreach to experts from the other national laboratories.
- Conducted a fact finding to determine whether the nitrate salts were treated and shipped in accordance with the WIPP waste acceptance criteria. Results are pending.

Plutonium Facility–Criticality Safety: Today, the field office transmitted to LANL a letter disapproving the submitted firefighting water Evaluation of the Safety of the Situation and Justification for Continued Operations (ESS/JCO) (see 4/11/14 weekly). Field office personnel and external federal criticality safety experts generated eleven comments. The more significant comments from the field office direct LANL to revise the ESS/JCO to: elevate certain compensatory measures to technical safety requirement level controls; prohibit certain fissile material operations that were not adequately analyzed; clearly define soluble compounds; and clearly identify which compensatory measures apply to which fissile material operations.

Plutonium Facility–Safety Basis: Also today, the field office transmitted to LANL a revised Safety Evaluation Report (SER) for the *TA-55 Documented Safety Analysis Addendum in Response to Nonlinear Seismic Analysis Results*. The SER incorporates the results of LANL analysis of the facility structural performance against Section 9.3.6 of DOE-STD-1020-2012 (see 1/31/14 weekly), and was approved by the NNSA Deputy Associate Administrator for Infrastructure and Operations.