

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 2, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.T. Davis, R.K. Verhaagen, and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending May 2, 2014

DNFSB Staff Activity: R.T. Davis turned over to DNFSB Headquarters personnel the continued monitoring of the recovery associated with the radioactive material release event at the Waste Isolation Pilot Plant (WIPP).

Area G: On Thursday, the WIPP contractor declared a potential inadequacy of the safety analysis (PISA) concerning the postulated role of untreated nitrate salt waste materials contributing to the radioactive material release event. Given the nitrate salt waste originated at LANL, Area G management conducted a critique on Friday to review the situation. Critique participants determined about 105 waste containers potentially holding nitrate salts are currently stored at Area G. Area G management conservatively decided to control these containers as if they were unvented and transferred all of them except those currently in shipping containers and those that have not been remediated to a dome with a functional fire suppression system. In addition, Area G personnel will perform periodic thermography to determine the presence of any exothermic chemical reactions until the situation at WIPP is understood.

The critique participants also discussed the processing history for these salts, which are bottoms from an evaporator used in the aqueous nitric acid process at the Plutonium Facility. They confirmed that workers treated these materials in accordance with a procedure consistent with direction from WIPP's Difficult Waste Team. Separately, LANL management intends to standup a war room and deploy a senior management liaison to WIPP to facilitate the ongoing investigation.

Weapons Engineering Test Facility (WETF): This week, WETF personnel completed the 30-day surveillance associated with the PISA (see 4/11/14 weekly) on the oxygen monitoring system (OMS) and observed continued problems with the system. WETF personnel now believe there are problems with the recently installed new digital modules and are working with the vendor to develop a path forward. The OMS system has been inoperable since November 2013. WETF personnel continue to evolve their solutions without the aid of systematic root cause methodology. As a result of this week's failed surveillance, the team leader delayed the start of the laboratory readiness assessment that was scheduled to commence next Monday for at least 45 days. WETF has not operated since 2010 and operations are necessary to reduce the risk associated with a large inventory of legacy tritium-containing items.

WETF personnel also continued to resolve field office concerns with hydraulic calculations performed in response to a PISA on the fire suppression system (see 4/25/14 weekly). The facility continues in the fourth week of 24-hour fire watches performed hourly.

WETF-Emergency Management: On Friday, LANL transmitted to the field office the after-action report from a recent exercise involving a postulated glovebox deflagration. LANL identified nine opportunities for improvement including the following: telephone numbers need posting; additional telephones or roll-over capability are needed in the Facility Incident Command (FIC); operators need training on evacuating the Operations Center; the WETF radio system needs improvement; the FIC needs to develop a line of inquiry to provide appropriate initial information to the fire department; the exercise design process need to ensure realism; and stay-times and entry criteria for a tritium area need to be developed and provided in an easy to use reference for the fire department.