

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 16, 1998

**MEMORANDUM FOR:** G.W. Cunningham, Technical Director

**FROM:** T. Dwyer and H. Waugh, Pantex Site Representatives

**SUBJECT:** Pantex Plant Activity Report for Week Ending October 16, 1998

**DNFSB Activity Summary:** H. Waugh was on site all week. T. Dwyer was on site Tuesday thru Thursday. W. White was on site Tuesday thru Thursday attending the BIO Upgrade Lightning Project Team Meetings.

**Lightning Protection:** The Lightning Protection Project Team met this week at Pantex to discuss remaining open issues with respect to the lightning protection system at the Pantex. The Project Team has drafted a letter to the Standing Management Team (SMT) outlining their proposal for surge suppression on communication circuits entering bays and cells. This proposal provides detailed technical specifications on what is required to limit any voltages that might develop in bays and cells as a result of lightning strikes that affect communications circuits. The Project Team also discussed recent LLNL research on the effectiveness of the Faraday cage concept and the existing catenary wire overhead protection system, but team members were unable to draw any firm conclusions until further research and testing is completed by both LLNL and SNL. On Thursday, the team briefed DOE-AL Nuclear Explosive Safety personnel on the recommendations the team has made regarding lightning protection at Pantex.

**Pit Issues:** Pit loading into Building 12-116 continues. To date, pits have only been placed in Room 120. M&H has continued installation of dataloggers in ramps, loading docks, and trailers, to record temperatures in these various pit environments. Instrumentation is being installed in several specially modified containers to obtain pit surface temperatures as a function of room air and sealed insert temperatures. LLNL also continues work with M&H to develop an acceptable formula that will allow some movement of pits during daylight hours. Current restrictions on transportation of pits between Zones 12 and 4 or relocating pits within Zone 4 during daylight hours result in significant operational difficulties.

**National Electric Code (NEC) Compliance:** As required under the DOE Explosives Safety Manual, M&H has undertaken a program to verify compliance with NEC Class II Division 2.g requirements. A training program has been developed for personnel (usually Facility Managers and their assistants) who will physically walk down each bay/cell. However, the process is limited by manpower available from OS&H (3 persons assigned) to analyze the walkdown data and write the NEC Compliance Report -- walkdowns will only occur on a "demand" basis, individual weapon program by weapon program. M&H has also submitted a letter to AAO requesting an exemption from this DOE Explosives Safety Manual requirement in the case of the ongoing Fire Alarm System/Devices upgrade. Specifically, M&H proposes to use General Purpose class equipment, instead of Class II Division 2 equipment, for the upgrade.

**Recommendation 98-2:** A separate memorandum has been submitted on this subject.