

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 3, 1999

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

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

**SUBJECT:** Pantex Plant Activity Report for Week Ending December 3, 1999

**DNFSB Activity Summary:** H. Waugh was on site all week. T. Dwyer was on site Wednesday-Friday. M. Helfrich and OE R. West were on site all week observing W62 reviews.

**W62 D&I Program:** Preparations for W62 D&I Program start-up continued this week:

The W62 D&I Nuclear Explosive Safety Study (NESS) Revalidation resumed. Almost all available time this week was spent observing demonstrations in bays and cells.

Demonstrations should last through late Tuesday or early Wednesday of next week.

The DOE-AL Readiness Assessment (RA) was conducted concurrent with the NESS this week. The 4-person team attended in-briefs Monday afternoon, and conducted field work Tuesday through Thursday, concluding with an outbrief to AAO Thursday and to M&H Friday morning. Initial results of the RA are 9 pre-start and 8 post-start findings [potentially rising to 12 pre-start and 9 post-start findings]. The most significant pre-start findings concern conduct of operations (NEOP compliance and NEOP validity) and operator proficiency. Of note, most of the conduct of operations issues were actually identified by the NESS team. Numerous informal NEOP changes were made during the demonstrations. In fact, this led to an additional pre-start finding [also potentially applicable to the last 2 weapons program start-ups] -- the informal changes were not properly screened through the NEOP change control process. While these findings are significant, it is not clear that the RA adequately sampled the W62 process. DOE-AL-imposed constraints on duration (3 field days) and resources (4 people) limited the team's effectiveness. Targeted observations of known trouble spots in the process were not conducted -- in fact, less than 1 full day of weapons process operations were observed on a program that historically requires 7 days to complete. Time constraints also precluded verification of the flowdown of a broad range of controls. Therefore, the RA findings, while valid, cannot be considered to provide an indication of all significant issues and the extent of the identified ones.<sup>[III.A]</sup>

**Lightning Issues:** Lightning controls went through several gyrations this week, eventually ending up 1 step closer to implementation of the lightning JCO. In rapid succession, Issues H, I, and then J of the lightning Engineering Instruction (EI, ED98-029), and Issues A and then B of a new lightning Nuclear Explosive Engineering Procedure (NEEP, ED99-527) were promulgated. The rapid change-out of instructions was required due to configuration management errors that at 1 point (November 30<sup>th</sup>) left the site without any effective lightning controls -- forcing a temporary shutdown of operations. Per the JCO Implementation Plan, NEEP ED99-527 will remain effective until January 10<sup>th</sup>, at which point control will shift to the lightning JCO.<sup>[III.A]</sup>

**Pit Issues:** As reported in the August 27<sup>th</sup> Site Representative letter, on July 1<sup>st</sup>, LLNL had sent a letter to DOE-AL regarding the slow pace of AL-R8 SI packaging, stating that it would therefore be necessary to implement accelerated surveillance of some of the oldest pits. In follow-up documents, a schedule for surveilling 9 pits in August, 8 in October, and 7 in November was promulgated. Both the October and November samples have been missed, reportedly due to a failure by LLNL to provide the sample serial numbers to M&H.<sup>[III.A]</sup>