

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 1, 2000

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director

**FROM:** H. Waugh and W. White, Pantex Site Representatives

**SUBJECT:** Pantex Plant Activity Report for Week Ending September 1, 2000

**DNFSB Activity Summary:** H. Waugh was on site all week. W. White was out of the office Monday through Thursday and was back on site Friday. J. Deplitch and L. McGrew were on site Monday through Friday to observe an emergency exercise.

**Emergency Exercise:** The Pantex Plant conducted a full participation exercise (EXER-002) on August 30. This was the first time for full play in Zone 12 South. The scenario involved a simulated explosion of two fictitious warheads in a bay with a radiological plume going southwest over the airport. The exercise included significant play by the local communities and the VA Hospital radiological treatment facility. The exercise was generally well planned and reasonably controlled. Pantex demonstrated improvement over past exercise response. However, several areas were deficient, including response and recovery of casualties, contamination control, on-scene command and control of the accident scene, assessment of the accident scene and damage, field radiological monitoring, and dissemination of accident-related data to the off-site agencies. The Office of Independent Oversight and Performance Assurance (OA-30) performed an external evaluation of the exercise, identifying the issues noted above. <sup>[II.A]</sup>

**Pit Packaging and Storage:** The total number of pits packaged in the sealed insert configuration passed the 1000 mark this week. Work continues on qualification of the Inconel Bolt for use with the sealed insert, and the galling tests have been performed satisfactorily. The four-pack pallets used to conduct the 20 foot drop test have been returned to Pantex for examination. Final testing should be completed this week. Improvement in the pit thermal monitoring in Zone 4 continued. All of the SAC magazines have been converted to the wireless monitoring system. Modified Richmond magazines are expected to be completed by the end of September. <sup>[II.A]</sup>

**Lightning Protection:** The Lightning Protection Nuclear Explosive Safety (NES) Study Group reconvened in Albuquerque to address a potential minority opinion with the Lightning protection NES Master Study. The minority opinion involves the potential for additional voltage resulting from the inductance of bonds used to connect electrical penetrations to the facility Faraday cage. The member of the NES group with the minority opinion recommended that the minority issue be a pre-start finding of the group. This position is based on the fact that the additional voltage is not currently considered in the calculated bonded stand-off distances. According to the minority opinion, the bonded stand-off distances may not be conservative and may not provide sufficient control. The group (excepting the member who wrote the minority opinion) concluded that the current bonded stand-off distances were sufficiently conservative and that the potential for additional voltage as a result of bond inductance should be a post-start finding. Provided he agrees with the NES report, the DOE Albuquerque Operations Office manager will address the minority opinion in his endorsement letter to DP-20. DP-20 must then comment on the minority opinion in his approval/disapproval letter. <sup>[II.A]</sup>