**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

August 11, 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 August 11, 2000

**DNFSB Activity Summary:** W. White was on site all week. H. Waugh was on leave all week. R. West was on site Monday through Friday to observe the DOE W76 Readiness Assessment (RA). L. McGrew was on site Monday through Friday to observe the W76 Nuclear Explosive Safety Study (NESS).

**W76 D&I Program:** The DOE W76 RA, led by the DOE Albuquerque Operations Office, began on Monday. The week was spent observing bay operations. Cell operations and remaining bay operations will be reviewed next week, with the RA scheduled to end on Friday, August 18. The size and background of the RA team, their performance to date, and the duration of the review indicate improvement over the W62 RA. The W76 NESS also continued this week, observing bay operations in conjunction with the RA team. [II.A]

**Lightning Protection:** The DOE/AAO RA team briefed DOE, MHC and the Lightning Protection NESS group on its review of the implementation of the Lightning Protection BIO and TSRs. Pre-start findings (those that must be addressed before the changeover from JCO controls to BIO controls) included improper flow down of BIO controls into implementing procedures, incomplete implementation of task exhaust isolation features, inadequate personnel knowledge of BIO requirements, improperly marked stand off distances in most facilities, inadequate labeling of certain design features (hoses), and inadequate compliance with marked stand off distances. In addition to the pre-start findings, there were 13 post-start findings, 11 observations, and 1 positive observation. The RA team expressed disappointment in the overall lack of readiness.

The NESS for the Lightning Protection BIO concluded its review. Findings from the NESS group include a lack of formal methodology for evaluating faraday cage characteristics of transportation equipment and facilities, lack of peer review for the existing lightning protection analysis, and a potential concern with inductance from facility bonds. Inexplicably, the NESS chose to discount the minority opinion in the DOE Safety Evaluation Report for the Lightning Protection BIO. The minority report concluded that the safety function for the lightning warning system should be not only to detect lightning, but also to warn affected facilities. For affected operations to be halted before lightning reaches the plant, not only must the lightning warning equipment detect lightning, but the plant communication systems must function to allow the warning to reach production operations. It seems intuitive to identify the equipment required to carry out this safety-class function (including at least one avenue of communication to production facilities) as safety-class equipment. [II.A]

**Grass Fire Issues:** Over the past few weeks, wind-blown tickle grass (similar to miniature tumbleweeds) from grasslands near the plant has accumulated throughout the plant site, particularly along the south fence of Zone 12 South and near several facilities in Zone 12. The significant accumulation of dry vegetation poses potential fire concerns in some areas. DOE and MHC met on Thursday to discuss actions needed to reduce the fire hazard. Actions to be taken include mowing the areas which are the source of the tickle grass and vacuuming the existing grass accumulations. To expedite these actions, DOE and MHC are investigating borrowing resources from state and local agencies as well as the DOE Albuquerque Operations Office. [II.A]