

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 17, 2004

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: T. Hunt, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending September 17, 2004

DNFSB Staff Site Activity: Staff members W. Andrews, F. Bamdad, D. Kupferer, A. Matteucci, and J. McConnell were on site this week reviewing the Pantex Plant authorization basis and technical safety requirements (TSR).

Safety Basis Review. The staff conducted a review of the authorization basis (AB) and status of the implementation of the new and revised TSRs at the Pantex Plant. The relatively complex Pantex AB, driven by compliance with the 10 CFR 830 rule, has continued to evolve during the last two years. There are hundreds of conditions of approvals that remain open and these impact numerous AB documents. Presently, the schedule to implement more than 200 TSRs, which has been significantly delayed over the past few years, has a completion date of 2006. In addition, there are 40 open NESS post-start findings and recommendations related to the nuclear explosive safety operations of which the oldest is more than six years old.

High Pressure Fire Loop (HPFL). On Wednesday, a leak was discovered in the HPFL supplying nuclear explosive facilities. Operations were temporarily halted while the leak in corroded piping was isolated and repairs initiated. The BWXT Fire Department confirmed that the pump starts maintained HPFL pressure within plant operating parameters during the event and system operability was not lost to any facility.

The HPFL has been identified as a high priority project in the *2004 Pantex Plant Ten Year Comprehensive Site Plan*. PXSO received approval for Critical Decision 0 this week to begin conceptual design of a replacement safety-class fire suppression system for the weapon facilities. The existing iron pipe HPFL has experienced degradation from corrosion over the past several years due to aging and soil conditions. The proposed project will replace deteriorated sections with high density polyethylene piping and cathodically protect any ferrous materials in contact with soil. An NNSA independent project review identified concerns with the unverified conditions of the tanks and pumps servicing the HPFL as well as system capacity to support multiple, simultaneous fires. The conceptual design report phase is expected to be completed in November 2005 with operability scheduled for late-2009.

Office of Environment, Safety and Health Investigation. Representatives from EH-6 were on site this week performing a W56 and unreviewed safety question (USQ) Price-Anderson enforcement investigation. The site office expects to receive a draft report in 4-6 weeks.

High Explosives (HE) Operations. Two occurrences have transpired in the past week that call into question work control for high explosive activities. During a drilling operation on the interior circumference of an insensitive HE hemisphere, an improper length tool was used. This created a scrape on the HE surface and broke the vacuum holding the piece in place. In another instance, a small quantity of high explosives was placed into an oven with a high temperature alarm set point which was greater than the allowable temperature specified in the Explosive Safety Manual for the explosive.