

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 1, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: H. Waugh and W. White, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending March 1, 2002

DNFSB Activity Summary: H. Waugh and W. White were on site all week. T. Dwyer, J. Shackelford, and R. West were on site Monday through Thursday to review the development and implementation of administrative controls at Pantex. The Board's LANL site representative, C. Keilers, was on site Thursday and Friday to observe a meeting of the Standing Management Team.

Administrative Controls: The Board's staff conducted a review of the development, implementation and verification of administrative controls at Pantex. Administrative controls are utilized extensively at Pantex. For many accident scenarios identified at Pantex, administrative controls are the only controls. A number of good practices were observed during the staff review. For example, BWXT appears to recognize the safety significance of administrative controls and has attempted to implement and maintain these controls in a manner commensurate with their importance. BWXT uses a project team to develop controls, soliciting input from a multi-disciplinary team of engineers, hazard analysts, and operating personnel. BWXT also appears to be reasonably effective at ensuring that the selected controls are properly translated into operating procedures.

However, a number of areas appear to warrant further evaluation and improvement. It was clear that the requisite training aspects of administrative controls are not implemented as effectively as possible. Training courses reviewed did not clearly emphasize the importance of safety-related administrative controls, particularly for those controls for which an increased effectiveness for the control as a result of training was claimed in the hazard analysis. Tracing specific controls to the course curricula was difficult, and change control processes (to ensure changes in the controls resulted in changes in the training) did not appear effective. The need for periodic refresher training was not defined. Additionally, there was no mechanism for the self-assessment or surveillance of administrative controls to verify their effectiveness. [II.A]

12-64 Seismic Study: In February, BWXT issued a contract to ABSG Consulting (formerly known as EQE) to evaluate the seismic adequacy of Building 12-64. The bays in 12-64 are not currently used for nuclear explosive operations. However, to increase production capacity at the Pantex Plant, BWXT would like to explore whether it is possible to modify these bays to meet current nuclear explosive safety expectations.

In the first phase of the study, ABSG Consulting is to perform a detailed seismic analysis based on the dynamic approach defined in DOE Standard 1020-94, *Natural Phenomena Hazards Design and Evaluation Criteria for Department of Energy Facilities*. The analysis is to evaluate the entire structure of the bays in 12-64 and is to consider and address soil-structure interaction. If the seismic analysis justifies the structural adequacy of the different bay configurations in 12-64, a second analysis is to be performed to evaluate the cracked concrete in the 12-64 roofs. As part of the evaluation, the contractor is expected to determine potential engineering solutions and provide conceptual information for a retrofit of the roof structure.

BWXT expects a draft report of the first phase of the study to be available by the end of March with a final report due by May 3, 2002. For the second phase of the study, BWXT expects a draft report on April 19, 2002, and a final report on May 17, 2002. [II.A]