

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 11, 2002

MEMORANDUM FOR: J. K. Fortenberry, Technical Director

FROM: W. White, Pantex Site Representative

SUBJECT: Pantex Plant Activity Report for Week Ending October 11, 2002

DNFSB Activity Summary: W. White was on site Monday and was on travel or leave for the remainder of the week. A. Matteucci was on site Monday through Thursday to provide site office support.

Deluge Fire Suppression System: BWXT Pantex personnel continued testing and flushing the deluge fire suppression systems at the Pantex Plant following the recent test anomalies in cells of Building 12-44. One of the highest priorities is to place strainers in those deluge fire suppression systems that currently lack them. To date, a strainer has been installed in the deluge fire suppression system for Building 12-96 and the system has been tested. However, no more strainers were locally available; the installation of strainers and testing for facilities that do not currently have strainers is pending delivery of the hardware from the manufacturer.

Testing and flushing continue for facilities already equipped with strainers. Facilities tested to date include 12-98 Cell 3 and 12-104 Bays 9, 11, 13, and 15. Another test anomaly occurred in Building 12-104, Bay 15. The deluge fire suppression system in this facility had been converted from a pre-primed system to a dry-pipe deluge fire suppression system. Initial attempts to flow water through a bleed line following a system flush were unsuccessful. The line appeared to have been clogged with rust or other debris. Personnel tapped the line, knocking the debris loose. The flush was performed again, and water was flowed until clear water flushed from the bleed valve. [II.A]

Contaminated Trainer: On Wednesday, BWXT personnel identified tritium contamination on parts used in a weapon trainer outside the material access area. Radiation safety technicians identified tritium contamination on one of the trainer components at levels in excess of 1.8 million dpm/100 cm². Although personnel exposure to tritium contamination at this level would not result in exceeding any annual limits for radiation exposure, the level of contamination is well above any normal residual tritium contamination found on any part at the Pantex Plant.

BWXT personnel do not know the source of the tritium contamination. The part in question is not normally contaminated with tritium at a detectable level. In addition, the part is not tracked by serial number, so its origin is unclear at this point. Following identification of the contamination, BWXT suspended work with weapon trainers until the trainers can be surveyed for contamination. Personnel who contacted the part or worked in the area where the part was located have been entered into a bioassay program. Surveys of the clothing and shoes of personnel who worked with the trainer have indicated no detectable levels of tritium contamination. [II.A]