

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending August 27, 2010

Electrostatic Discharge (ESD) Controls: B&W has installed the new ESD footwear checker (see 4/2/10 report) at the entrance to one nuclear explosive cell. This week, a production section manager noticed that the barrier plate of the checker had been bent away from the badge reader to allow an individual to use the reader without performing the intended electrical resistance measurement. No nuclear material was present in the facility at the time of the discovery and no work had been performed in the facility between the time when the reader was last observed to be in an acceptable condition and the discovery of this damaged condition. Manufacturing personnel believe a security police officer (SPO) bypassed the reader in order to perform the daily check that the facility is properly secured. This operation requires a SPO, who does not don ESD footwear and thus cannot lower the plate in front of the badge reader, to use the badge reader without entering the facility. System engineering plans to modify the footwear checker to accommodate this verification.

Facility management personnel performed an extent of condition review for the missed in service inspection for an ESD floor covering (see 8/13/10 report) and found one additional floor with the same problem. This time, there was no potential inadequacy of the safety analysis as the facility did not contain a nuclear explosive.

Plutonium Contamination: For the last several months, radiation safety technicians have been surveying legacy components in preparation to transport the components to Sandia National Laboratories for processing. This week, after surveying the outside of a black bag marked only with "caution: radioactive material" and finding no contamination, the technicians carefully slit open the bag and found 63,000 dpm/100 cm² alpha (removable, the total contamination readings are still in question). They also found 950 dpm/100 cm² alpha (removable) on the polybag that had been placed under the black bag. The technicians immediately double-bagged the component and affixed the proper label to the black bag. Personnel contamination surveys and nasal smears were performed on the technicians and no contamination was found. Radiation safety department management has issued direction to its technicians that any unmarked or improperly labeled legacy components discovered during this initiative shall be set aside for processing at a later date. This work will take place in a contamination area and will likely require the technicians to wear respirators, along with other additional personal protective equipment. After further investigation, radiation safety has determined there are approximately four of these plutonium-contaminated legacy components remaining elsewhere onsite.

Material Moves: During the last several weeks, the B&W emergency management department had been performing a work-for-others activity that required the transportation department to move a weapon trainer unit (with trackable quantities of depleted uranium) to a unique location onsite. Because this location had not been established in the electronic Pantex Material Move System, the operations center had to manually approve the move—a mechanism that is allowed by the Pantex authorization basis, but is not detailed in the B&W procedure for authorizing material moves. B&W recognizes this procedural gap and plans to provide guidance on the process that should be followed to authorize material moves for activities in unique locations.