

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 12, 2011

Spatz observed a confirmatory hazard analysis task team walkdown for the B83 tooling upgrade project.

Nuclear Explosive Operations: As reported last week, manufacturing management directed technicians to pause operations and consult with nuclear explosive safety (NES) and process engineering personnel if they encounter a detonator cable assembly (DCA) that is particularly difficult to remove using the currently approved process. After encountering one such unit last week (and pausing operations a total of three times), B&W management has decided to seek the necessary approvals to use an alternative disassembly method rather than risk damaging the DCA. The new method will involve cutting the DCA and applying polyimide tape to the exposed areas. Before using this method, B&W may need to obtain weapon response information from LANL, and must obtain NES and authorization basis approval. B&W plans to use the information and approvals from these organizations to permanently incorporate this alternative process as a procedural contingency if technicians encounter DCAs that are difficult to remove in the future. PXSO has yet to approve this alternative method.

Nuclear Explosive Safety Rule Violation: Last September, B&W's safeguards and security (S&S) division installed RuBee wireless tags in all of the protective force's firearms and other items intended for use in a new automated accountability system. Normally, any new electronic device intended to be introduced into nuclear facilities is analyzed and approved according to the supplemental equipment program, which would then trigger a review by the NES division. In this case, the tags were fielded throughout the plant—including nuclear explosive areas—without a formal review. Two weeks ago, personnel outside of the S&S division were informed of this issue. Last week, B&W initiated its new information process and has since confirmed that the RuBee tags do not pose a threat to the electroexplosive devices in nuclear explosives at Pantex. DOE O 452.2D, *Nuclear Explosive Safety*, specifies general NES rules. One is that unauthorized energy sources must not be available in a nuclear explosive area during nuclear explosive operations. This week, B&W determined that this event was a NES rule violation. No immediate compensatory measures were deemed necessary.

Contingency Glovebox Feasibility Study: In response to the incidents involving the plutonium-contaminated legacy item and the stretched pit tube, B&W has been working to set up and use a radiological tent for routine work with legacy components or waste and also to prepare one for use in the event of a breached pit. PXSO has been encouraging B&W to study what additional capabilities beyond a tent, if any, should be established to deal with the potential for a future incident involving a breached pit or equivalent. While uncommon, it has occurred three times during Pantex's history. At PXSO's direction, B&W assessed the feasibility of preparing an existing but currently unused glovebox at Pantex for use. B&W also evaluated purchasing a new glovebox. B&W proposed to modify the existing glovebox to meet the current drawing requirements, replace missing equipment, place tooling in try-out status, test the glovebox and its controller system, identify any necessary operational improvements, draft maintenance procedures, and place the glovebox in the configuration management system. Not included would be the steps required to make the glovebox available for use on short notice, such as finalizing the maintenance procedures, training people to use the glovebox and the procedures, and actually performing inspections and maintenance. In addition, B&W proposed to not submit a documented safety analysis and demonstrate readiness until after an actual need for the glovebox is identified (e.g., a pit is breached). PXSO approved the initial steps of B&W's plan, but has not yet decided whether to allocate the necessary resources to prepare the glovebox for use on short notice.