

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending October 2, 2009

W76-1 Operations: B&W continues preparations to recover from the W76-1 high explosive (HE) separation event during recent assembly operations (see 8/28/09 report). Several tools normally used only for assembly operations will be used to disassemble the unit. One assembly tool was modified to add a safety feature to help prevent a drop of a HE main charge. B&W prepared a justification for continued operations (JCO), requested confirmatory weapon response from Los Alamos National Laboratory (LANL), and requested a nuclear explosive safety change evaluation (NCE). This week, B&W rescinded the JCO submission and suspended the NCE that was already in progress in part due to questions related to the weapon response provided by LANL for HE drop scenarios onto nylon surfaces. B&W is preparing additional information for LANL and initiated the new information process.

Special Tooling: During W76-1 assembly operations, technicians use a press to ensure that a specific component remains seated while another tool is being removed from the target configuration. Recently, while performing this step in the operation, technicians observed the component did not remain seated as intended. Tooling evaluated the press and determined its full range of motion was inhibited by needle valves that had not been adjusted per the instructions on the tool drawing. Quality reviewed the fabrication and acceptance of this tool and found that crafts personnel had failed to properly adjust all applicable valves during fabrication. Subsequent inspections during the acceptance process were only required to verify that the work had been documented as performed, and the documentation was not detailed enough to specify which valves had received adjustments. Tooling quality will now require a dimensional inspection of the range of motion of the press prior to acceptance.

Limiting Condition of Operation (LCO) Entry: Recently, the operations center (OC) received a fault alarm indicating a performance degradation of the deluge fire suppression system in a nuclear explosive facility. The OC contacted the facility manager, who immediately placed the facility in maintenance mode. No LCO was entered at that time because the OC queried the status of the wrong facility (using the material tracking system) and incorrectly informed the facility manager that there was no material present. The following day, the OC recognized its error, informed the facility manager that a nuclear explosive (NE) was present, and the LCO for an unplanned impairment of the deluge fire suppression system was entered at that time. By chance, the NE was in an approved transportation configuration; therefore, no new actions were required. It should be noted that the material tracking system accurately reflected the material loading in all facilities during this sequence of events. Plant Shift Superintendents are now required to obtain an independent verification when checking the material loading in a facility for the purpose of establishing the need for safety-related compensatory measures.

Training: The manufacturing division held oral boards for a nuclear safety officer (NSO, the position that provides conduct of operations oversight for the manufacturing division) and two production section managers (PSMs, the first line supervisors of the production technicians). The prospective NSO was attempting to become the fourth currently qualified at that position, but did not pass the board primarily because of inadequate knowledge of the readiness process. Both prospective PSMs passed their boards and certification for each is imminent. The conduct of the boards was improved from those previously observed by the staff.