

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 December 17, 2010

DNFSB Staff Activity: C. Martin was onsite to meet with LANL tri-lab personnel.

Immediate-Action Procedures (IAPs): IAPs are nuclear explosive safety (NES)-directed actions that must be performed when tests or other conditions indicate the possibility of a reduced state of NES. Pantex procedures require process engineers to embed IAP actions in nuclear explosive (NE) operating procedures (NEOPs) just prior to all electrical tests or operations that are more likely to indicate a reduced state of NES (IAP actions can also be found in an appendix to the NEOP). The site reps recently found that B&W is implementing some IAPs in a manner that is either inconsistent with NES direction, illogical (when consistent with NES direction), or a wholesale misapplication of the original intent of IAPs.

B&W NES department personnel have indicated that the specific wording of IAP actions embedded in NEOPs cannot deviate from those issued by the NNSA NES Branch. Consistent with this direction, though illogical, the site reps found examples of IAP actions that directed technicians to disconnect all test equipment from the NE when the equipment had never been connected. Conversely, the site reps also found IAP actions that deviated from those defined by NES so they would be logically consistent with the applicable NE configuration. Follow-on discussions with the acting manager for the NNSA NES Division indicate that the practice of embedding in-sequence actions in an approved NEOP is a misapplication of the original intent of IAPs. IAPs should only be *trained* actions, defined by NES, to ensure that technicians react properly to indications of a reduced state of NES. PXSO has agreed to gather all parties responsible for defining and implementing IAPs to coordinate resolution of these issues.

Two-Person Concept (TPC): Last week, B&W violated the TPC of operations on two occasions. The violations were separate incidents, but very similar: a work crew left one of the dual locks on a facility unlatched. Both instances appear to be the result of inattention to detail as both responsible individuals indicated they were thinking about their next task when they forgot to latch their lock. In both cases, B&W was able to use the Argus security system logs to verify that no personnel entered either facility. Similar to another recent NES requirement violation (see 11/12/10 report), the B&W NES department only learned of the event through informal means, indicating that these violations may not always be reported in a timely manner.

W78 Operations: Late last week, W78 technicians replaced the swing arm that could not latch into place (see 12/10/10 report). The new swing arm was also offset from level (though not as severely) and technicians once again suspended operations with the unlatched swing arm protecting the configuration in the workstand. Tooling engineers have evaluated the original swing arm's interface with a copy of the workstand and believe this issue is the result of the stack-up of slightly uneven pieces from both tools (the pieces still conform to drawing tolerances). As a near-term corrective action, tooling engineers plan to tighten the tolerances of these tools. As a long-term action, B&W plans to eliminate the swing arm from the process.

After additional evaluation of the current configuration, engineering personnel determined a justification for continued operations would not be necessary to recover from this work stoppage. Technicians continued operations by placing an upward force on the swing arm until it lay flush with the latch point on the workstand. For future W78 operations, technicians will use their experience to decide whether swing arm offsets such as this one will require a work stoppage.