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 April 8, 2011

Safety System Status: Last week, a B&W facility manager discovered that technicians had used a safety class ASME NUM-1 hoist with an overdue in-service inspection (ISI) requirement on three occasions from December 23, 2010, to January 19, 2011. The facility manager believed he had tagged out the hoist (by isolating its pneumatic supply and using a tag with a tie wrap) sometime last fall because personnel for the program occupying this nuclear explosive and nuclear subassembly staging facility were going to have difficulty removing sufficient nuclear material from the facility to accommodate the quarterly ISI of the hoist. The quarterly ISI officially lapsed on December 3, 2010. When the facility manager attempted to perform the next occurrence of the quarterly ISI on the hoist on March 24, the "do not use" tag was missing. Maintenance personnel completed the quarterly maintenance activity shortly thereafter and found the hoist to be functioning properly.

B&W manufacturing personnel reviewed the logbook entries and maintenance work packages for the time frame in question to determine when the hoist had been used and when the "do not use" tag had been removed. In addition to the three times the technicians used the hoist, they found that the responsible facility manager and his backup—overlooking the "tagged out" status of the system on the facility status board—had mistakenly authorized two monthly ISIs after the quarterly ISI had lapsed (monthly ISIs can be performed with material in the facility, but would not be sufficient to restore operability of the hoist if the quarterly ISI has lapsed). Both the maintenance personnel who performed the monthly ISIs and the technicians for the facility indicated that the tag was not present when they used the hoist and that they would not have removed it without approval from the facility manager. Manufacturing division personnel have been unable to determine who removed the tag or if it was ever applied in the first place.

B&W plans to conduct a formal cause analysis of the event. In the meantime, manufacturing management has already indicated some of the corrective actions they would like to pursue. The manufacturing division manager plans to minimize the practice of tagging out safety systems when it becomes operationally burdensome to vacate the facility to accommodate maintenance on the system. Additionally, he has instructed facility managers to install physical locks in lieu of tags and tie wraps when systems need to be removed from service in the future. The facility operations department manager plans review the barrier analysis that was recently completed on the maintenance tracking process to see if it contains adequate system-level barriers to prevent this event from recurring.

B53 Transportation Operations: This week, transportation personnel inadvertently contacted a B53 subassembly (bomb case with secondary) with the wall of a storage magazine in Zone 4. The personnel had transported the subassembly to the magazine for staging and were repositioning it to be in compliance with lightning standoff requirements when the contact occurred. The forklift driver had stopped upon the indication to do so by the spotter, but the play in the tow bar/ pin assembly and the residual force from the casters on the handling gear caused the subassembly to drift into the wall. The transportation personnel backed the subassembly away from the wall when they observed that the nitrogen backfill in the subassembly had begun to discharge. Radiation safety surveyed the area following the release and found no contamination. The B53 process engineers have indicated that the subassembly is in a safe and

stable configuration in the near term, but are awaiting direction from the design agencies on how to treat the subassembly in the long term.