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 February 24, 2012

B83 Tooling Upgrade Project: This week, B&W issued the final report of the contractor readiness assessment (CRA) for the B83 Tooling Upgrade Project. The CRA team identified 18 pre-start findings and 1 post-start finding. The findings captured myriad issues, including the failure to have certain packaging procedures available at the start of the CRA, failure to fully implement and maintain radiological contamination controls, and incomplete special tooling documentation. In the cover letter for the report, the B&W General Manager acknowledged that the results of the CRA do not reflect an adequate level of readiness. Therefore, in addition to closing the specific findings from the CRA, B&W has committed to revalidate the functional areas where issues were identified and re-perform the CRA using a plan of action with the core requirements that were not met during the recently completed CRA.

Process Anomaly: Last week, technicians performing a surveillance operation on a sealed insert (SI) pit container encountered a process anomaly. The technicians were preparing to backfill the container with inert gas when they observed a pressure reading in the manifold connected to the container that was outside the tolerance range specified in the procedure. The technicians stopped work and contacted their supervisor because the procedure did not allow them to correct for this condition.

The container was under vacuum, isolated from the manifold, at this point in the process. The applicable procedure contains a safety requirement limiting the time in which the SI container can be under vacuum to 30 minutes. The procedure directs the technicians to vent the SI container using an appendix if this limit is approached or exceeded. Since the 30 minute limit was approaching, the technicians attempted to vent the container, but the appendix could not be executed as written because it did not contain provisions for venting the system with the manifold in place. To achieve a safe configuration, the supervisor directed the technicians to remove the manifold and expose the container to the atmosphere in the facility.

Following the event, process engineering personnel discovered that abnormally high atmospheric pressure conditions led to the high pressure reading and, ultimately, a situation in which the procedure could not be executed as written. The process engineers plan to modify the procedure to allow the technicians to address this situation if it is encountered again.

Conduct of Maintenance: Last week, a fire protection engineer found a credited fire barrier in an unauthorized configuration. Maintenance division management traced the issue to a facility modification that exceeded the scope of authorized work. In mid-January, crafts personnel received authorization to remove two caps covering conduits that penetrated the fire barrier in question. Following these modifications, they removed an additional two caps at the request of personnel in the facility. The latter activity was not within the scope of authorized work for this facility modification. Any modifications to a fire barrier must be explicitly approved by fire protection engineering to determine the impact of the modification on the credited safety function of the barrier and establish any attendant compensatory measures. In response to this and other recent procedure adherence events, maintenance division management stood down the division this week. During the stand down, they reviewed the events and re-emphasized the importance of procedure adherence and stopping work if a work package cannot be executed as written.