

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 September 2, 2011

Hoist Issues: In the past several weeks, technicians stopped work on two separate occasions (in different facilities) because they observed issues while using one of the new seismically qualified (ASME NUM-1) hoists. In both instances, the technicians reported hearing a grinding noise and observed chain dust and flakes on the hook block. System engineering immediately took both hoists out of service after the issues were reported. After having some difficulty troubleshooting the first issue, system engineering contacted the manufacturer. A certified technician from the manufacturer arrived last week to evaluate the hoist firsthand. He plans to finalize the results of his evaluation in a formal report, but believes that both issues are an indication that the chains in the new ASME NUM-1 hoists are wearing at an increased rate due to a lack of lubrication.

System engineering personnel have also performed evaluations of each of the suspect hoists and an extent-of-condition review involving the other ASME NUM-1 hoists. The evaluations generally concluded that the increased wear rate is a long term maintenance problem rather than an immediate safety concern because the chains are rated at a capacity of 4-10 times the overall capacity of the hoist. The evaluations recommend closely monitoring the chain wear and lubrication. The first suspect hoist has been re-certified and has returned to service. The second suspect hoist was replaced and returned to the manufacturer for additional testing.

Process Anomaly: This week, B&W formally requested weapon response from Los Alamos National Laboratory (LANL) to support the development of a recovery procedure and justification for continued operations for the unit with the damaged detonator cable assembly (DCA, see 7/29/11 report). The request transmits the draft recovery procedure and 10 postulated electrostatic discharge and impact hazard scenarios for which LANL must provide weapon response. LANL personnel plan to provide a response by September 21.

Material Move Error: This week, an applied technology technician found radioactive material (two packages of depleted uranium scrap parts with fixed contamination) in a box that was labeled as containing non-radioactive items. The technician immediately contacted his supervisor and the facility manager, who directed the technician to move the box to a nearby radioactive material area since the box was not in an approved staging location for radioactive material. Radiation safety personnel swiped the co-located non-radioactive items and the box itself and confirmed that the contamination had not spread.

B&W plans to perform a comprehensive causal analysis of the event at a later date, but the fact-finding exercise following the event revealed that the event most likely resulted from inattention to detail and inadequate procedures. Regarding the latter, it is the radiation safety department's expectation that this type of material be double-bagged with a yellow outer bag; however, one of the governing procedures for packaging the material only required a single bag (the item was still labeled with proper radioactive material sticker). Regarding the former, material handlers failed to identify the radioactive material sticker (they were looking for the yellow outer bag) and inappropriately segregated this material into a container with non-radioactive items. Material handlers also failed to identify these items when they performed a second check later in the disposition process.