

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 16, 2014

MEMO TO: Steven Stokes, Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending May 16, 2014

DNFSB Staff on Site: Z. Beauvais was at the Pantex Plant this week to provide site representative support.

Positive Unreviewed Safety Question (USQ) Determination for Unanalyzed Pressure:

Babcock & Wilcox Technical Services Pantex, LLC (B&W) declared a Potential Inadequacy of the Safety Analysis (PISA) when they discovered that one weapon program Hazard Analysis Report failed to include the pressure the Sylgard™ pump exerts on components during disassembly operations. (See report for 4/18/2014.) This week, B&W upgraded the PISA to a positive USQ after receiving the weapon response from the Design Agency. B&W determined that there was an increase in the consequence of an accident previously evaluated and an accident of a different type not previously evaluated. B&W has sent a Justification for Continued Operation (JCO) to the NNSA Production Office (NPO), and NPO is preparing a Safety Evaluation Report. The JCO identifies compensatory measures such as verification of the air pressure gage at the inlet to the Sylgard™ pump and verification by the Production Technicians that the pressure is at the prescribed setting during nuclear operations.

High Pressure Fire Loop (HPFL) Pressure Reducing Valve Failure: One of the two Safety-Class diesel fire pumps failed the weekly pump test. B&W stopped the planned maintenance, entered the appropriate Limiting Condition for Operation, and isolated the pump house from the HPFL system. B&W Maintenance personnel found that the pump suction pressure was below the minimum required pressure and that the pressure reducing valve for this pump had failed. B&W maintenance personnel replaced the pressure reducing valve but had not brought the pump online at the time of this report. B&W has three new diesel fire pumps online that will be credited as Safety-Class following a 90-day trial performance period. B&W had to enter the LCO because these pumps are not yet credited in the safety basis. (See report for 4/25/2014.)

Inadequacy of the Safety Analysis (PISA) for Special Tooling Functional Requirements:

B&W declared a PISA related to the functional requirements of four special tools used during radiography operations. For these tools, B&W Authorization Basis personnel identified that some of the functional requirements were either not identified in the facility Safety Analysis Report (SAR) or were not identified in the tooling analysis for drop and impact accident scenarios. B&W paused operations with these tools. After reviewing the tooling analysis and facility SAR, B&W Authorization Basis personnel declared a negative Unreviewed Safety Question (USQ) determination. B&W lifted the pause on the use of these tools.

Conduct of Operations: On Monday, the B&W General Manager stood down all on-site material moves. On April 17, 2014, the Department of Energy, Office of Enforcement and Oversight, Office of Health, Safety and Security, sent a letter to B&W identifying concerns with the improper management, handling, or labeling of highly hazardous materials. Since that time, B&W has experienced four material move events that were performed outside the established *Material Movement Authorization* procedure. B&W resumed on-site material moves after 100% of the affected personnel completed new material move training.