

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 16, 2013

MEMO To: Steven Stokes, Acting Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending August 16, 2013

Integrated Program Planning and Execution System (IPRO): This week, Babcock & Wilcox Pantex (B&W) experienced four safety-related IPRO software problems. The first event resulted in a technical safety requirement (TSR) violation. B&W moved a special nuclear material component into a facility, and discovered that the TSR material limit for that facility had been exceeded. B&W paused all material moves until the software defect could be corrected. B&W also verified that they had not exceeded the material limits in any other facility. B&W experienced two events when material moves were authorized in IPRO during lightning warnings. The fourth event resulted in IPRO authorizing explosives to be moved to a facility that was not placarded for that particular type of explosive. The B&W personnel performing the move identified the placard discrepancy before the material was placed into the facility. B&W has performed software modifications to prevent recurrence of these events.

Fire Penetration Seals: This week, B&W held an event critique related to the discovery that several newly installed fire penetration seals were suspect. Although B&W's subcontractor just completed replacement of the last suspect fire penetration seal (See report for 8/9/13.), B&W discovered that several of the newly installed seals were incorrectly installed. At the event critique, the B&W Fire Protection Engineer stated that, based on paperwork and physical inspection, he could not verify that the seals passed the acceptance criteria as two-hour fire rated walls. B&W declared a TSR violation from this event, paused operations in two facilities and placed them in maintenance mode.

Issue G Weapon Response: This week, B&W received an Information Engineering Release (IER) from Sandia National Laboratories (SNL) which revised some of the weapon responses originally sent to B&W as part of the Issue G high-quality draft weapon response summary. The IER stated that these revised weapon responses resulted from SNL's internal peer review process. B&W revised the Justification for Continued Operation (JCO) that was approved last week, and resubmitted it to the NNSA Production Office (NPO) for approval. B&W is awaiting a Safety Evaluation Report from NPO, completion of the Implementation Verification Review, and release of the NES change evaluation letter to resume operations. The Design Agencies have not submitted the final Issue G weapon response summary document.

Approved Equipment Program (AEP) Module 2 Nuclear Explosive Safety (NES) Master Study: This week, the NNSA Assistant Deputy Administrator for Stockpile Management (NA-12) approved the AEP Module 2 NES master study report. NA-12 accepted part of one pre-start finding related to B&W's falling man analysis and directed the remaining corrective actions associated with this pre-start to be treated as post-start actions. The partially accepted pre-start applied to specific weapon/special tooling configurations of one weapon program. NA-12 stated that operations could resume on that one program once B&W confirmed that compensatory measures were in place. B&W has paused the operations in the affected facilities. NA-12 downgraded the second pre-start finding to a deliberation topic, based on a letter from the Design Agencies that this accident scenario would not result in NES consequences.