

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 15, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Miranda McCoy, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending January 15, 2021

Seismic Activity: A 2.9 magnitude earthquake occurred approximately 12 miles from the Pantex Plant. The Pantex Operations Center did not experience any alarms, notifications, or noticeable seismic effects onsite, and was instead alerted by onsite personnel of the nearby seismic activity. In response, Pantex Operations Center staff alerted a number of personnel, including facility management. Facility management personnel conducted a visual assessment of accessible facilities and transportation routes and did not identify any damage.

Fire Protection System: Early this week, the fire alarm receiving system (FARS) unexpectedly lost communication with the primary database and the system logged all dispatchers out of the primary database. This resulted in a period of time when dispatchers would not receive FARS signals and could not dispatch responders. In response to the event, CNS emergency services dispatch center (ESDC) personnel activated the secondary database and notified the plant shift superintendent of the issue. At this point, ESDC personnel noted that entering limiting conditions for operations (LCO) may be required, and facility representatives entered LCOs appropriately. The fire protection LCOs have been misinterpreted in the past and have been identified as a target for safety basis improvements (see 12/4/20 report). Event investigation participants noted that the system surveillance requirement—a test of signal transmission and monitoring—had been performed successfully approximately a month prior. During the critique, participants noted that the FARS was recently installed; however, a portion of the old system was left. Participants questioned configuration management for the system and what software was on the old component. CNS is working to determine the cause of the failure.

Nuclear Explosive Safety (NES): NNSA conducted two NES change evaluations (NCE) this week. One NCE group evaluated a proposal to replace the current surge suppression system for one specific nuclear explosive cell, with the potential for similar facility modifications in the future. The voltage regulator surge suppression system is a design feature that ensures functionality of the emergency lighting system during electrical transient events. The new proposal would replace the active surge protector with a new passive surge protection system. The resident inspector notes the proposal is in line with the preferred hierarchy of controls and represents a positive practice in control selection. A second NCE group evaluated a proposed path forward for the disassembly of one unit. The unit has been partially processed, and is currently in a nuclear explosive bay. In October, the nuclear explosive bay experienced flooding due to heavy snowfall (see 11/6/20 and 10/30/20 reports). The presence of standing water could prevent the electrostatic dissipative flooring from performing its safety function. The NCE group evaluated a proposed bonding scheme to allow for further processing of the unit. In particular, the group evaluated the bonding scheme's effectiveness for direct and indirect electrical hazards, such as indirect lightning effects. The original proposal would have permitted operation during lightning warnings; however, CNS committed to the NCE group to modify the procedure to require a lightning-free window. The associated justification for continued operations will not be changed to include this control.