

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 20, 2026

TO: Technical Director
FROM: Pantex Plant Resident Inspectors
SUBJECT: Pantex Plant Activity Report for Week Ending March 20, 2026

Exemption Request: Last week, PFO sent a memo to the NNSA Associate Administrator for Environment, Safety, and Health endorsing an exemption from DOE Order 420.1C, *Facility Safety*. Specifically, the proposed exemption would remove the following requirements:

- (1) reviewing and upgrading “the Natural Phenomena Hazard (NPH) assessments every 10 years and whenever significant changes in NPH data, criteria, and assessment methods warrant updating the assessments for existing nuclear facilities” at Pantex;
- (2) implementing these NPH updates and evaluating whether existing structures, systems, or components (SSC) can withstand these revised hazards; and
- (3) modifying SSCs—as necessary—to address any resulting identified deficiencies.

In its justification for endorsing the proposal, PFO noted the robust construction of the existing nuclear facilities that meet the requirements of DOE Standard 1020-2002, *NPH Design and Evaluation Criteria for DOE Facilities*; the adequacy of the current in-service inspection program for these facilities; the minimal seismic variation of the surrounding area; and the time and resources necessary to perform such NPH reassessments “without a commensurate increase in safety.” Of note, this exemption only applies to existing nuclear facilities and would not be applicable to new facilities or existing facilities undergoing a major modification.

Conduct of Operations: Handling gear for nuclear explosives is normally designed with a mechanism—i.e., plugs with distinctive features—to identify if the container is full or empty. Last week, a PXD disciplined-operations specialist discovered handling gear unattended in a ramp with the plug denoting the handling gear was full but a label specifying it was empty. Following this discovery, PXD moved the handling gear to a nuclear explosive bay and verified that the container was in fact empty. PXD subsequently determined that production technicians had installed the incorrect plug prior to moving the handling gear into the ramp. PXD relies on strict disciplined operations, along with both a plug-installation and verification step within the nuclear explosive operating procedures, to ensure the proper plug is installed. In this case, neither the installation nor the verification steps within the procedure appear to have been followed.

Fire Protection: Last week, during execution of quarterly preventive maintenance on the fire-suppression system within a nuclear explosive bay, PXD special mechanical inspectors (SMI) discovered that a torque seal on one infrared flame detector had broken free from the device. PXD places torque seals across portions of the detector that rotate in different planes. As part of a surveillance requirement, SMIs use these torque seals to visually verify that the flame detector has not shifted positions. As a result of this failed surveillance requirement, PXD entered the appropriate limiting condition for operations and took necessary actions, which included allowing limited operations to empty the facility of material-at-risk. These activities will allow PXD to subsequently check and realign the detector as necessary. Additionally, PXD declared this occurrence as a performance degradation of a safety-class SSC when required to be operable.