DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 19, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Miranda McCoy, Resident Inspector
SUBJECT: Pantex Plant Activity Report for Week Ending February 19, 2021

Inclement Weather: Pantex and the surrounding communities experienced snowfall and icy conditions much of this week, with minimum temperatures as low as -10°F. Additionally, the area experienced power outages and excessive demand on natural gas utility providers. Onsite non-essential operations were halted Monday through Friday. Throughout the week, CNS identified a number of weather-related component failures, including a cracked and leaking fire riser in the Zone 12 material access area and a fire suppression system sprinkler head failure in a radiation safety storage area. CNS intends to perform an event investigation for the weather-related issues once plant personnel are back onsite.

Immediate Action Procedure (IAP): Late last week, production technicians performing disassembly operations encountered an error message while conducting an electrical test. The production technicians entered their IAP in response. CNS is awaiting information from the applicable design agency to inform a path forward for the unit.

Safety Basis: NPO approved a documented safety analysis change package incorporating safety basis improvement elements into the Sitewide Safety Analysis Report (SAR). The changes are part of an ongoing effort by CNS to simplify and revise the Pantex safety basis, and include a reduction in general site information, incorporation of requirements—where practical—from the most recent version of the documented safety analysis safe harbor, and reduction of information regarding safety management programs. The SAR instead points to specific program description documents for the safety management programs. NPO did not specify any conditions of approval or directed changes.

High Dose Event: Following the recent high dose event, CNS developed an irregular dose report documenting the justification that the high dose was erroneous and subsequently downgraded the occurrence reporting and processing system category from a radiation exposure event to a management concern (see 2/12/21 report). The irregular dose report sets forth the rationale for not assigning the high dose to the affected quality assurance technician (QAT) and the basis for assuming doses for each quarter for the technician using historical and peer data. The assigned dose is significantly lower than the reading, lower than the dose limits specified in the applicable code of federal regulations, and in line with doses received by other QATs in the vicinity. Additionally, NPO transmitted correspondence to CNS describing an NPO finding that CNS did not respond to the potential radiation exposure in an adequate or timely manner. NPO identified that CNS received data regarding the potential overexposure in late January, but did not restrict the worker from performing radiological work or having radiological area access until February 3rd. The QAT had been performing work with a linear accelerator; however, work involving that linear accelerator was also not paused until February 3rd as well. CNS is required to respond to the finding within 45 days with a corrective action plan for NPO's approval.