

Bruce Hamilton, Chairman
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**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**

Washington, DC 20004-2901



December 27, 2019

The Honorable Dan Brouillette
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Brouillette:

In early 2019, NNSA identified inadequately controlled scenarios involving the failure of certain ramps, loading docks, and appurtenances during a design basis seismic event at the Pantex Plant. These scenarios could result in high consequences to the public. NNSA evaluated and accepted this risk for an interim period while physical upgrades are completed to resolve these issues. The Board has determined NNSA's actions to expeditiously upgrade the affected structures are appropriate.

The Board does have an observation regarding the risk-based arguments used by NNSA to support continuing operations in those facilities. The technical justification dismisses combined mechanical-electrical insult scenarios to nuclear explosives during facility collapse. These combined mechanical-electrical insult scenarios lead to higher-than-assumed frequencies for inadvertent nuclear detonation that NNSA should have considered during its risk review.

The Board does not find this observation requires any further action on NNSA's part at this time, but could be useful information during future analyses. The Board notes the upgrades are scheduled to be completed by August 2020. The Board looks forward to reviewing the final designs and seeing NNSA complete the upgrade strategy.

Yours truly,


Bruce Hamilton
Chairman

c: The Honorable Lisa E. Gordon-Hagerty
Mr. Joe Olencz