

Bruce Hamilton, Acting Chairman
Jessie H. Roberson
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**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**

Washington, DC 20004-2901



May 17, 2018

The Honorable James Richard Perry
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Perry:

On December 16, 2015, we communicated several concerns regarding the structural degradation and analysis of the H-Canyon Exhaust Tunnel at the Savannah River Site. H-Canyon is an important asset for the defense nuclear complex as a whole. The ventilation system, including the exhaust tunnel, is a safety-class system that is essential to the safe operation of H-Canyon. We continue to review the results of the Department of Energy's (DOE) concrete characterization tests and analysis performed on concrete core samples of the 221-H Personnel Tunnel walls by the Savannah River Site Construction Materials Testing Laboratory, the Savannah River National Laboratory, and the US Army Corps of Engineers Engineering Research and Development Center. Strength tests performed on several of these concrete cores resulted in values below the concrete design strength. Also, periodic DOE concrete inspections of the H-Canyon Exhaust Tunnel have revealed concrete surface degradation exposing aggregate and steel reinforcement.

We are aware that DOE is pursuing a nonlinear analysis of the tunnel to determine if it can perform its post-seismic safety function. Pursuant to 42 U.S.C. §2286b(d), the Board requests a written response and a briefing from DOE within 90 days on the path forward to ensure the continued structural integrity of the H-Canyon Exhaust Tunnel at the Savannah River Site or any alternatives being evaluated to replace the exhaust tunnel.

Yours truly,

A handwritten signature in black ink that reads "Bruce Hamilton". The signature is written in a cursive style.

Bruce Hamilton
Acting Chairman

c: Mr. Joe Olencz