



Department of Energy

Washington, DC 20585

August 13, 2010

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DOE SAFETY BOARD

The Honorable Peter S. Winokur
Defense Nuclear Facilities Safety Board
Chairman
625 Indiana Avenue NW, Suite 700
Washington, DC 20004-2901

Dear Mr. Chairman:

This is in response to your April 29, 2010, letter regarding H-Canyon aging management and implementation of aging-related corrective measures. The Department of Energy (DOE) Office of Environmental Management (EM) manages the H-Canyon facility and individual system status to ensure safe operation and minimize the risk to accomplishing essential missions. Funding will be provided to support critical system modification and maintenance at H-Canyon. However, overall funding must be balanced with other priorities within DOE. As outlined below, the Savannah River Site (SRS) is using a comprehensive evaluation process to develop priorities for the funding for H-Canyon facility maintenance. Due to uncertainties in funding profiles, DOE cannot provide a firm schedule for completion of non-critical maintenance projects at this time.

For many years H-Canyon has performed two processing outages per year. These outages provide for maintenance, inspections, and modifications to keep H-Canyon in a condition capable of meeting mission requirements. In addition, as you noted, DOE has instituted an Integrated Facility Aging Management (IFAM) Program to assess the capability of those structures, systems and components (SSC) needed for H-Canyon missions.

Once an IFAM review is completed, a report is issued identifying any SSC that need further evaluation or corrective action. Corrective actions are prioritized based on impact to safety, mission, and regulations. IFAM reviews are conducted with the design authority's system engineer. So all recommendations are evaluated for safety basis impact, including potential safety basis changes, and this is explicitly stated in the IFAM report. Corrective actions that are safety related (Safety Class or Safety Significant) receive the highest priority for budgeting and scheduling such that safety is not compromised. One example of a safety-related upgrade (planned for Fiscal Year 2011) is the Safety Class steam valves for the process evaporators that are scheduled to be installed during two upcoming maintenance outages. Some examples of recent infrastructure related improvements that are completed or are ongoing for H-Canyon include: cell pier support repairs, critical spares procurement and sand filter ventilation duct backfill.



Approximately \$9 million has been spent on H-Canyon infrastructure-related upgrades and improvements since 2007. Forty five out of the 104 corrective actions identified in H-Canyon IFAM reports have been completed. These completed IFAM corrective actions have included additional inspections, evaluations, repairs, increasing the minimum number of certain critical spare parts and adding some SSC to the structural integrity program. We will continue to keep the Defense Nuclear Facilities Safety Board (Board) apprised of our IFAM system evaluation progress and status of recommended actions through distribution of final system evaluation reports, regularly scheduled conference calls with your staff and periodic IFAM project reviews at SRS.

Projects that cannot be immediately completed are evaluated and prioritized on the site's Integrated Priority List (IPL) for infrastructure improvement projects. A copy of the IPL has been provided to your staff and this list was also provided to the resident Board representatives. Projects that are placed on the IPL are improvements to production reliability. While funding limitations can delay some equipment upgrades, major system failure has been avoided. As you noted, cooling water switchgear replacement and the removal of the old hot crane have been delayed due to funding constraints. The cooling water switchgear is the highest ranked item on the IPL and the top five H-Canyon IPL items are ready to be implemented once funding is identified. Should these systems fail, we have determined that the schedule impact could be several months; while not desirable, the impact does not adversely affect public or worker safety nor prevent mission accomplishment.

The Nuclear Incident Monitoring (NIM) cabling example provided in your letter was documented in the H-Canyon IFAM report in September 2009. Surveillance testing was performed which demonstrated the facility wiring on each NIM System was functioning properly. A failure mode analysis was performed which identified two failure modes and determined that failures would be detected by the existing circuitry. Additional testing scope or frequency would not provide increased assurance of system performance, nor is immediate cable replacement required.

In summary, DOE is taking action to maintain H-Canyon in a safe configuration and capable of supporting mission objectives. Actions have included enhanced surveillance, maintenance, and administrative controls, as applicable and described above. DOE appreciates the opportunity to discuss these matters with you and will continue our dialogue with your staff. A meeting with your staff has been arranged in early September to further discuss these matters.

If you have any questions, please contact me at (202) 586-5151.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Krahn". The signature is fluid and cursive, with a large initial "S" and a long, sweeping underline.

Dr. Steven L. Krahn
Deputy Assistant Secretary for
Safety and Security Program
Environmental Management

cc: I. Triay, EM-1
D. Chung, EM-2
M. Gilbertson, EM-3 (Acting)
M. Campagnone, HS-1.1
J. Craig, SR