

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 25, 2008

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** M. P. Duncan and M. T. Sautman, SRS Site Representatives  
**SUBJECT:** SRS Report for Week Ending January 25, 2008

**H-Canyon:** Because the stack brick liner is expected to fail in a design basis earthquake, an analysis was conducted to see if the canyon exhaust system can keep running and force enough air through brick rubble to maintain containment. If two potential duct breaches are fixed and one fan continues to operate, preliminary modeling predicts that sufficient air can pass through the rubble pile to maintain confinement in H-Canyon and HB-Line. An independent review will examine the assumed particle size and void fraction of brick rubble and mortar.

**235-F:** In response to Site Rep observations, packages are being developed to retape plastic sheets covering a hood in the Plutonium Fuel Form Facility, remove an old localized exhaust duct, and seal the inlet to the exhaust header. (See 12/21/07 weekly report.)

**Savannah River Nuclear Solutions:** The Site Rep met with the Chief Executive Officer to discuss the Board's role at the Savannah River Site and issues of interest to the Board.

**Materials Disposition:** The Site Rep observed an Environmental Management Nuclear Materials Planning workshop where various alternatives for the disposition of plutonium, enriched uranium, U-233, and spent fuel were discussed.

**Interim Salt Disposition Project:** The contractor Operational Readiness Review is nearing completion. Currently, there are 31 findings and no more are anticipated. The conduct of operations, radiological control, and training functional areas have the most findings.

**Tritium:** The contractor performed a critique to look at recent quality problems with the configuration of several weapon components. Some had been shipped off site in this condition. The problems appear to stem from the facility's incomplete implementation of a Product Definition change from the design agency. Several conduct of operations issues were identified.

**Safety Basis:** The contractor assessed the potential impact of applying DOE-EM's interim guidance to most M&O hazard category 2 nuclear facilities. Despite an order of magnitude increase in the calculated consequences to co-located workers, the contractor expects that a detailed reassessment of each accident scenario would show that the existing set of safety controls remain adequate.

**Waste Solidification Building:** The staff and Site Reps met with NNSA and the contractor to discuss the current design of the Waste Solidification Building. The project forecasts that the detailed design will be completed in May. The staff plans to review the safety basis and structural design soon.