Status Building 235-F Project

Randall J. Clendenning
235-F Federal Program Manager
DOE-Savannah River
Citizens Advisory Board
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Purpose

Provide information regarding ongoing risk reduction activities in the 235-F Facility
Building 235-F Background

• Building 235-F has had numerous missions over the years, with the most recent being fabrication of Pu-238 in the Plutonium Fuel Form Facility (PuFF) for use in construction of power sources for NASA deep space missions in the 1980’s
• Residual material in the nine PuFF facility cells was last measured in 2006
• About 1.5 kilograms of Pu-238 material remain in the cells
• In a seismically induced full facility fire accident scenario the calculated unmitigated dose is about 29,000 rem onsite and 11.4 rem offsite
• The building is safely maintained in the surveillance and maintenance mode
• The project objective is to reduce the unmitigated onsite dose to less than 100 rem by reducing Pu-238 levels in PuFF
• The facility end state will be determined through an agreement with State Regulators
Key Accomplishments

• Completed readiness reviews and authorized field work to begin

• Completed mechanical and electrical isolation of cells 6 – 9

• Removed outer shield windows and cleaned inner windows of cells 3 – 9

• Established cell lighting in cells 3 – 9

• Completed measurements of the amount of material in cells 3– 9

Radioactive Material Measurement
Key Plans for FY 2017

- Remove outer manipulator control arms from cells 1 – 2
- Remove outer shield windows and clean inner windows of cells 1 – 2
- Established cell lighting in cells 1 – 2
- Complete measurements of the amount of material in cells 1 – 2
- Complete mechanical and electrical isolation of cells 3 - 5
PuFF Cells 4 and 5 Current State
Located on the Savannah River, in Aiken and Barnwell counties in South Carolina. Chosen for its location, chemistry, land quality, soil characterization, and construction costs.