



# Building 235-F Facility

**Vickie B. Wheeler**

Federal Project Director,

Nuclear Materials Stabilization Project

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*Savannah River Site Citizen Advisory Board*



# Purpose

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

Update Recommendation 293 in accordance with 2013 Workplan



Building 235-F



# Agenda

- Facility Background/History
- CAB Recommendation 293 Status
- Defense Nuclear Facilities Safety Board Recommendation 2012-1
- Q & A



# Facility History

- Building 235-F constructed in the 1950's as part of original Savannah River Plant
- Plutonium Fuel Form (PUFF) mission was performed 1979 through 1984
- Historical Missions:
  - Special products for Savannah River Site Reactors
  - Special mission heat source fabrication for Space exploration missions
  - Plutonium material storage
- Three primary Pu-238 process areas
  - Old Metallurgical Lab
  - Plutonium Experimental Facility
  - Plutonium Fuel Form Cells
- Facility placed in standby mode in 1984



Heat Source



Space Exploration

# Facility Background/History

- Large amount of residual material in the facility.
- Manipulators do not work
- High corrosion of gaskets, aluminum tooling inside cells.
- Most Cells are no longer illuminated
- Removal activities can cause re-suspension of highly mobile Plutonium 238 material.
- Long shutdown and workforce attrition have resulted in limited retained 235-F experience
- Residual material in cells were measured in '04 & '06
- Facility is in surveillance and maintenance mode pending Deactivation .
- End state will be determined through a Core Agreement with Regulators.



Remote Operations Area



# Citizens Advisory Board (CAB) Recommendation Number 293

## Remedial Actions and Clean-up of 235-F

- *Identify and implement plans for short term measures that could reduce the hazards identified in the Safety Board's Recommendation 2012-1. Reassess the plans for decontamination & decommissioning of 235-F with more emphasis placed on earlier decontamination & decommissioning of 235-F.*
- *Advise the CAB of other measures that could be taken to address concerns addressed in the Safety Board's Recommendation 2012-1.*
- *Advise the CAB, no later than the January 2013 CAB of the cost and timeline of implementing the Safety Board's Recommendation 2012-1 and how other projects will be impacted by the implementation of said Recommendation.*



- On December 5, 2012 Department of Energy issued an Implementation Plan to the Defense Nuclear Facilities Safety Board.
- Savannah River is currently in the process of implementing the plan.
  - Remove fixed combustibles
  - De-energize electrical equipment
  - Upgrade Fire Detection and Alarm System
  - Decontamination of the cells
  - Protection of the workers and area personnel



# Deactivation Project Scope – Removal of Pu-238 from Cells



Cell 1

Cell 5





- Near term actions include the restoration of services to the cells and establish safety requirements that support deactivation of the cells. (end of FY13)
- Cost and Schedule Range will be finalized with the issuance of the project deactivation plan. (June 2013)
- Projected to start deactivation work in the cells in FY14.



# Summary

- Due to the nature of the the Department has adopted a phased approach
- Restoring the services necessary to safely perform the work
- Establishing the safety requirements for performing the work
- Evaluate and implement the use of advance technologies and lessons learned
- Start with lower risk area to gain knowledge and experience.



# QUESTIONS

