



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

# Update on National Environmental Policy Act (NEPA) Documents

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Savannah River Site

Presented to the Citizen Advisory Board  
January 26, 2016

DOE-SR/EM will present to the CAB a list of recent NEPA documents effecting the Savannah River Site EM Nuclear Material Programs.

The SRS EM Program consists of:

- Nuclear Materials Management and Disposition
  - H-Canyon, HB-Line, K-Area, L-Area and F-Area
- High Level Waste Program
  - Tank Farms, DWPF, Saltstone, SWPF
- Environmental Restoration and Cleanup
- Waste Management
  - Sanitary, hazardous, LLW, MW, and TRU
- Security

# Acronyms

Al –clad – Aluminum clad

AROD – Amended Record of Decision

CNSC – Canada Nuclear Safety Commission

DRR – Domestic Research Reactor

DWPF- Defense Waste Processing Facility

EA – Environmental Assessment

EIS – Environmental Impact Statement

EM- Environmental Management

FRR- Foreign Research Reactor

HEU – Highly Enriched Uranium

IAEA – International Atomic Energy Agency

ISO – International Standards Organization

LWT – Legal Weight Truck

MTR – Material Test Reactor

NEPA – National Environmental Policy Act

NNSA – National Nuclear Security Administration

SNF – Spent Nuclear Fuel

SPD – Surplus Plutonium Disposition

SWPF – Salt Waste Processing Facility

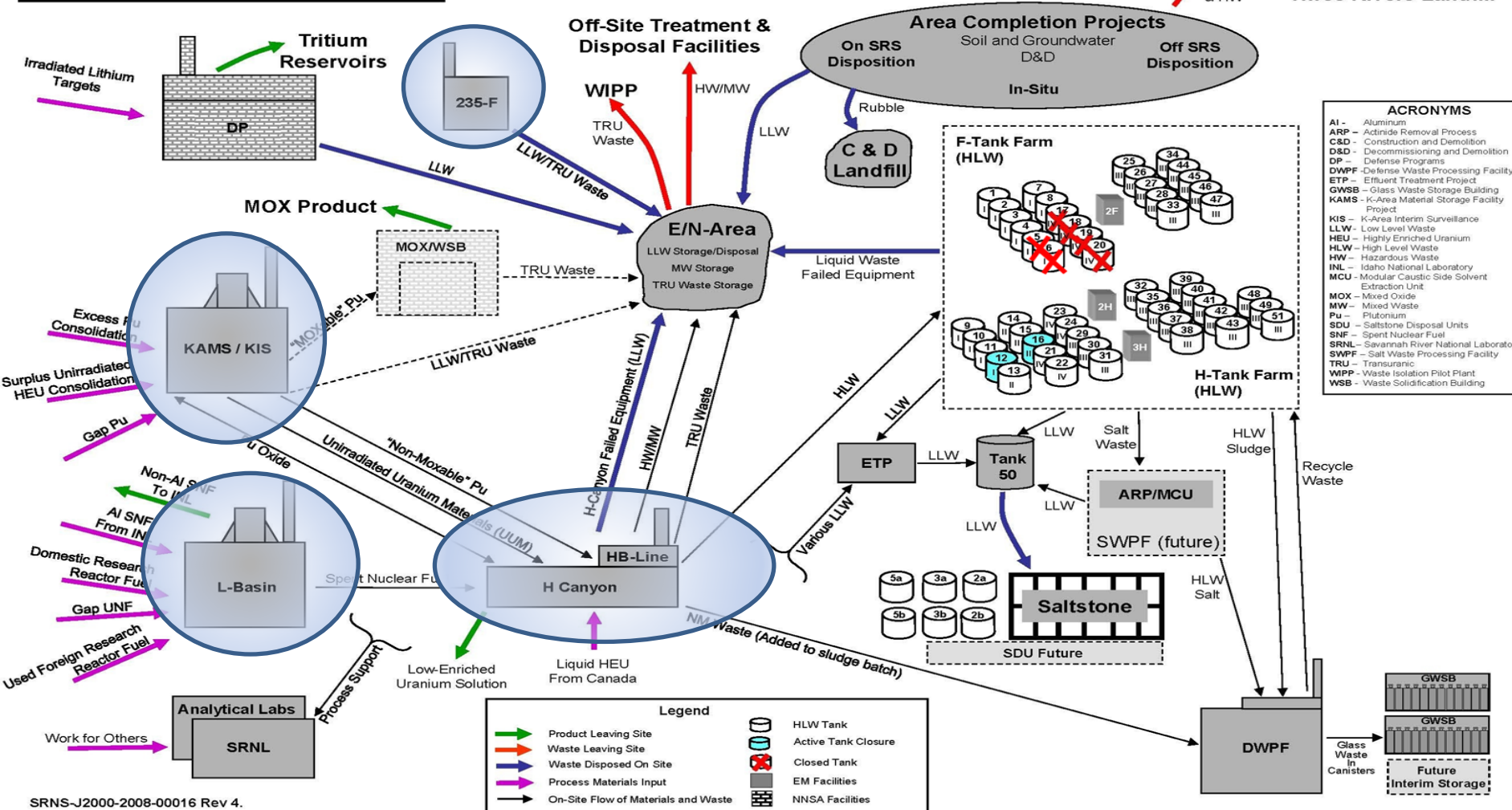
ULTB – Uranium Lease Take Back

# Savannah River Site Waste and Material Flow Path

**NM Facilities**

This depiction of SRS activities shows only the general scope of the major facilities and missions. It does not represent all processes or all materials flow.

**Off-Site Disposal**  
e.g., Clive, Utah,  
Three Rivers Landfill



# What does NEPA do?

- The National Environmental Policy Act establishes a process for decision makers to use in considering the potential environmental impacts (both positive and negative) of major actions before making decisions.
- It requires a Federal agency to consider the potential environmental, human health, and socioeconomic effects of a proposed action and a range of reasonable alternatives for implementing the action, including the option of taking no action at all.
- And in certain situations, seek public input on proposed actions.

- **DOE/EIS-0283-S2 Surplus Plutonium Disposition Supplemental EIS (SPD SEIS)**
  - Final Issued in May 2015
  - Preferred Alternative for 6 MT of surplus non-pit plutonium issued in December 2015
  - Record of Decision has not been issued
- **DOE/EA-2024 Gap Material Plutonium- Transport, Receipt, and Processing**
  - Final Issued in December 2015
  - Finding of No Significant Impact Issued December 28, 2015

# Recent NEPA Documents continued

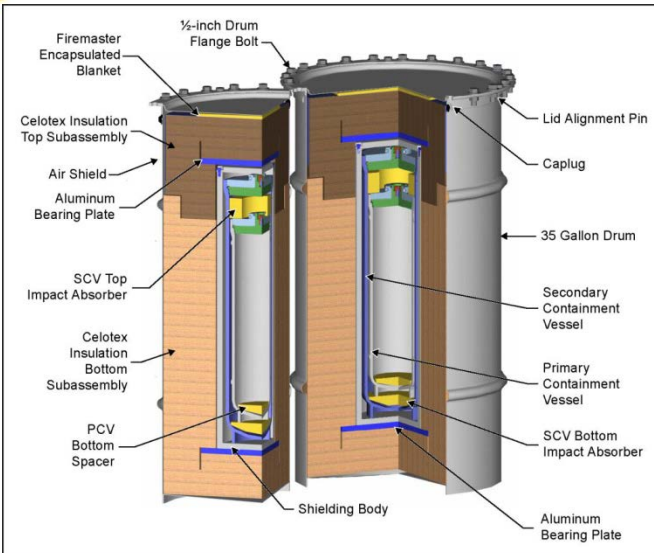
- **DOE/EA-1977** Acceptance and Disposition of Used Nuclear Fuel Containing U.S.-Origin Highly Enriched Uranium from the Federal Republic of Germany
  - Notice of Intent issued in June 2014
  - Draft Environmental Assessment released January 15, 2016
    - <http://www.srs.gov/sro/germanheuproj.html>
  - Public Meeting to be held February 4, 2016, 6:30 – 9 p.m., North Augusta Community Center
- **DOE/EIS-0279-SA-03; DOE/EIS-0387-SA-01** Supplemental Analysis for the Uranium Lease and Take Back Program for Production of Molybdenum-99 for Medical use (ULTB Program)
  - Supplemental analysis issued in December 2015
- **DOE/EIS-0218-SA-07** Supplement Analysis for the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program: Highly Enriched Uranium Target Residue Material Transportation
  - Issued November 2015

# What do the NEPA documents mean to SRS EM Programs?

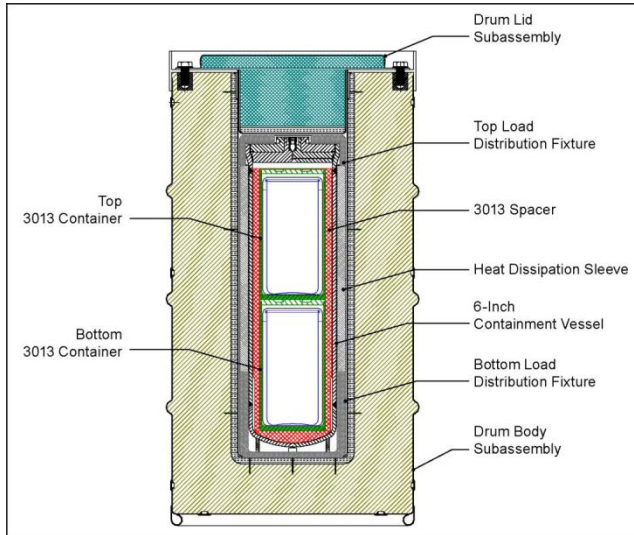
- **DOE/EIS-0283-S2 Surplus Plutonium Disposition Supplemental EIS (SPD SEIS)**
  - A preferred Alternative has been identified but no Record of Decision has been made at this time
  - Would allow for 6 metric tons of surplus non-pit plutonium to be down-blended for shipment to WIPP
- **DOE/EA-2024 Gap Material Plutonium- Transport, Receipt, and Processing**
  - A Finding of No Significant Impacts (FONSI) was issued.
  - Allows transport of up to 900 Kg of gap material plutonium to SRS, storage in approved SRS facility, de-cladding and stabilization of some of the plutonium



# Photos of the containers that would transport the Gap Material Plutonium



Model 9975 Shipping Package



Model 9977 Shipping Package with two DOE-STD-3013 Containers



9975 Shipping Package

# Photos of the containers that would transport the Gap Material Plutonium (continued)



Source: DOE 2009a.

ISO containers Secured within  
the Hold of a Ship



K Area Storage

## What do the NEPA documents mean to SRS EM Programs? (continued)

- **DOE/EA-1977** Acceptance and Disposition of Used Nuclear Fuel Containing U.S.-Origin Highly Enriched Uranium from the Federal Republic of Germany
  - Would allow the technology maturation to continue to a pilot scale process and if proven successful would allow the Department to make a decision on acceptance of the German material if a Finding of No Significant Impact is determined.
- **DOE/EIS-0279-SA-03; DOE/EIS-0387-SA-01** Supplemental Analysis for the Uranium Lease and Take Back Program for Production of Molybdenum-99 for Medical use (ULTB Program)
  - If SA is determined to support previous Departmental decisions then SRS would be responsible for receipt of SNF (all will be LEU) from the Molybdenum-99 vendors, that was no longer useable for Mo-99 production.

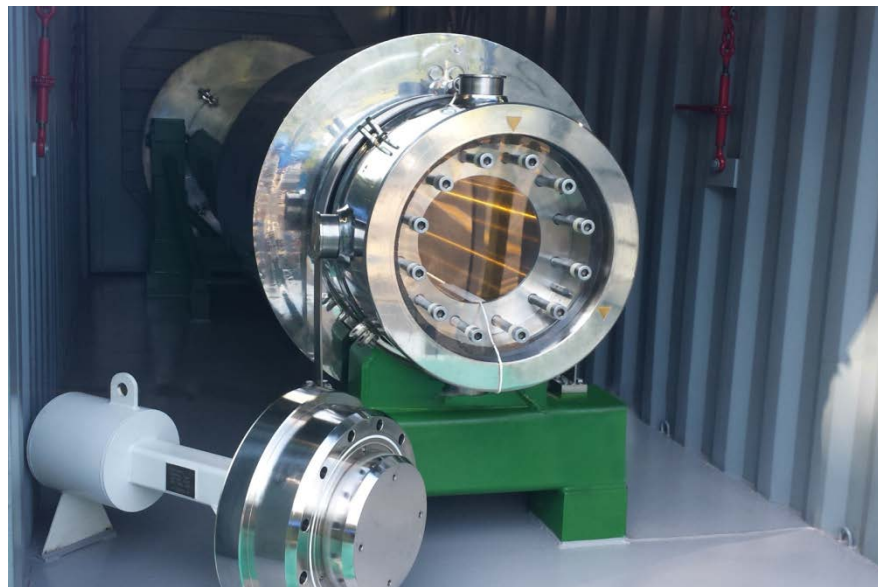
# What do the NEPA documents mean to SRS EM Programs? (continued)

- **DOE/EIS-0218-SA-07** Supplement Analysis for the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program: Highly Enriched Uranium Target Residue Material Transportation
  - This SA provides a detailed review of :
    - the process for transport package certification in the United States and Canada,
    - the DOE program to train and familiarize first responders about the proposed shipments, and
    - an analysis prepared by the Canadian Nuclear Safety Commission (CNSC) of the potential impacts of transporting the target residue material within Canada
  - SA supports previous determination in that the transport of HEU solutions would represent neither:
    - substantial changes to the actions evaluated in previous NEPA analysis,
    - nor represent significant new circumstances or information relevant to environmental concerns.
  - This SA reaffirms that the potential environmental impacts from this activity would be very low and not significantly different from the impacts reported in the *FRR SNF EIS* (DOE 1996a). There would be no expected radiological or non-radiological fatalities.

# Photos of the Legal Weight Truck (LWT) Cask



Inner container for HEU Target  
Residue Material



LWT Cask within the ISO  
container

# Summary

- NEPA is important to the Department
- Impacts to the environment and public are being considered in Departmental decisions
- SRS is vital to Departmental Missions
- All DOE NEPA documents are available on:  
<http://energy.gov/nepa/nepa-documents>