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GROUND RULES



Only the Source Evaluation Board (SEB) has the authority to change or clarify the Request for Proposal (RFP). Any information presented during the site tours that differs or may be viewed as a change to the RFP will not be considered an amendment to the final RFP.

Questions on this presentation should be for clarification of the material presented. Any questions that are deferred should be provided to the SEB website.

Questions on this afternoon's tours that cannot be answered on the spot must be written on index cards for collection at the end of the visit.

Defense Programs (DP) at the Savannah River Site



Georgia

Savannah River Site

South Carolina

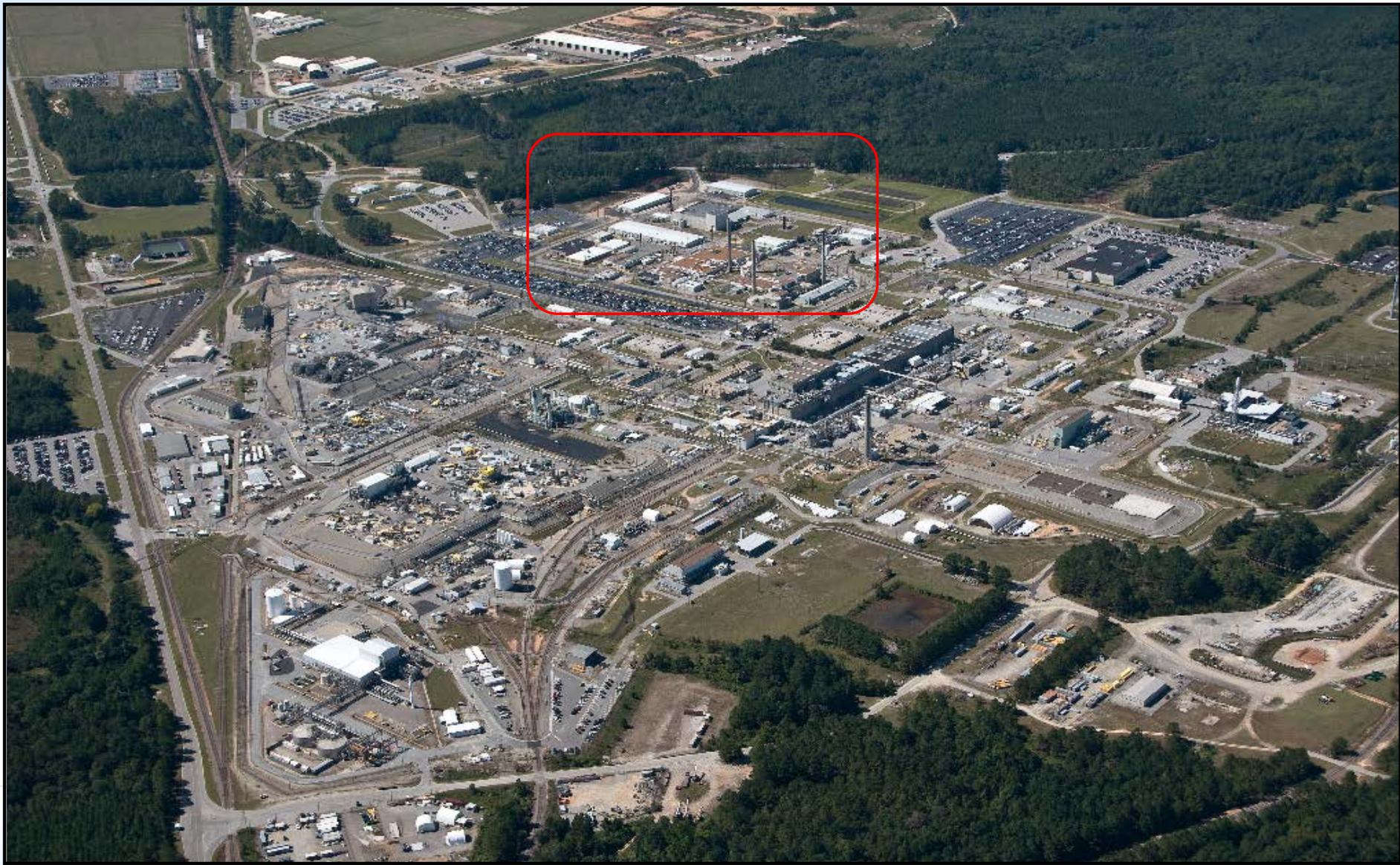
NNSA-DP at SRS

- DP missions primarily involve the Tritium Facility and SRNL
- FY12 Budget = \$206M; 8.7% of Site

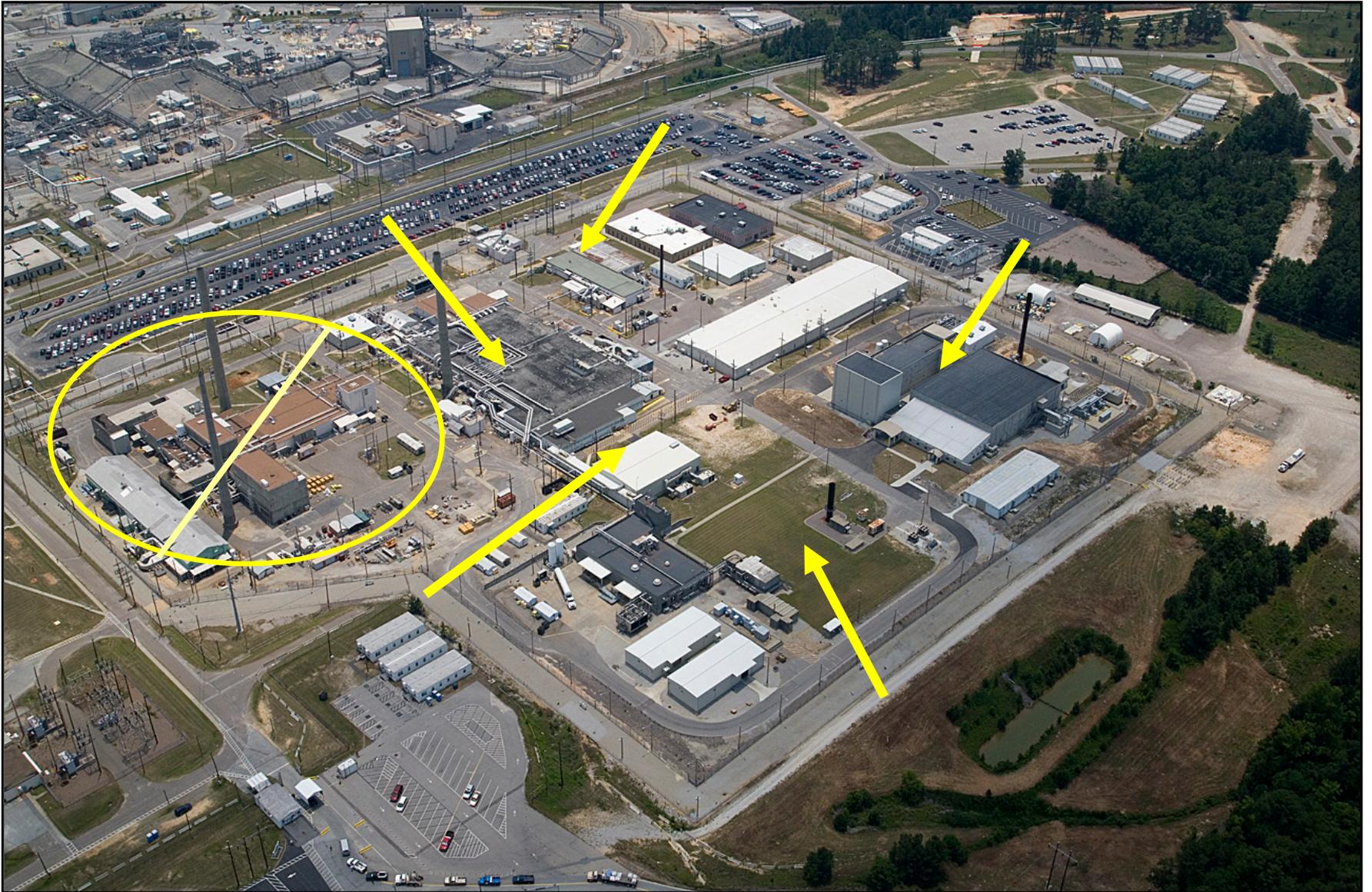


Savannah River National Lab





Tritium Facility



The SRS Missions Today

CLOSURE

- Environmental Restoration (D&D, Soil & Groundwater)
- Waste Management (includes TRU, LLW, and DWPF ops)
- Natural Resources/Ecosystem Management

OPERATIONS

- Tritium Recycle & Extraction
 - Reservoir Load & Unload
 - Reservoir Surveillance
 - Extraction from TVA Reactor targets
- Helium-3 Supply
- Defense Programs Missions
- Plutonium
 - Stabilization and storage
 - Pit disassembly and conversion (future)
 - Mixed oxide (MOX) fuel fabrication (Project)
- Highly Enriched Uranium
 - Blend down for commercial use
 - U.S. origin foreign reactor fuels receipt & disposition
- Savannah River National Lab

SRS Today

Corridor Area/Buffer Zone

A Area

- SRNL
- SREL
- Some D&D Underway
- A Area Powerhouse Operational

M Area

D&D Completed

TNX

D&D and Area Closure Completed

D Area

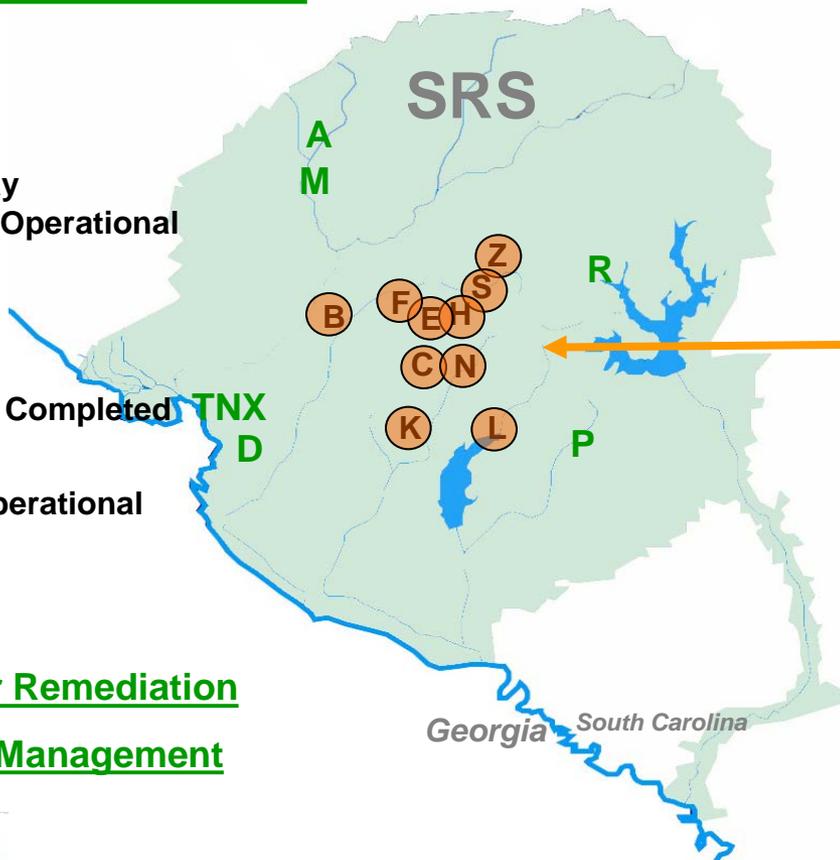
D Area Powerhouse Operational
D&D Completed

P & R Areas

D&D Completed

Soil & Groundwater Remediation

Natural Resources Management



Central Core Area

B Area

- Central Administration/Security

C Area

- Material storage

E Area

- Waste storage/processing/disposal

F Area

- F Canyon/FB Line deactivated in 2006
- Excess F Area facilities D&D'd
- F Tank Farm and 1 evaporator operational, 2 tanks operationally closed
- MOX/WSB construction underway
- 235-F Awaiting D&D

H Area

- Nuclear materials processing facilities operational (H Canyon, HB-Line)
- H Tank Farm and 2 evaporators operational
- Tritium Facilities operational

K Area

- Nuclear material storage

L Area

- Spent Nuclear Fuel storage

N Area

- Industrial support/warehousing

S Area

- Radioactive liquid waste disposition (DWPF, GWSBs)

Z Area

- Saltstone

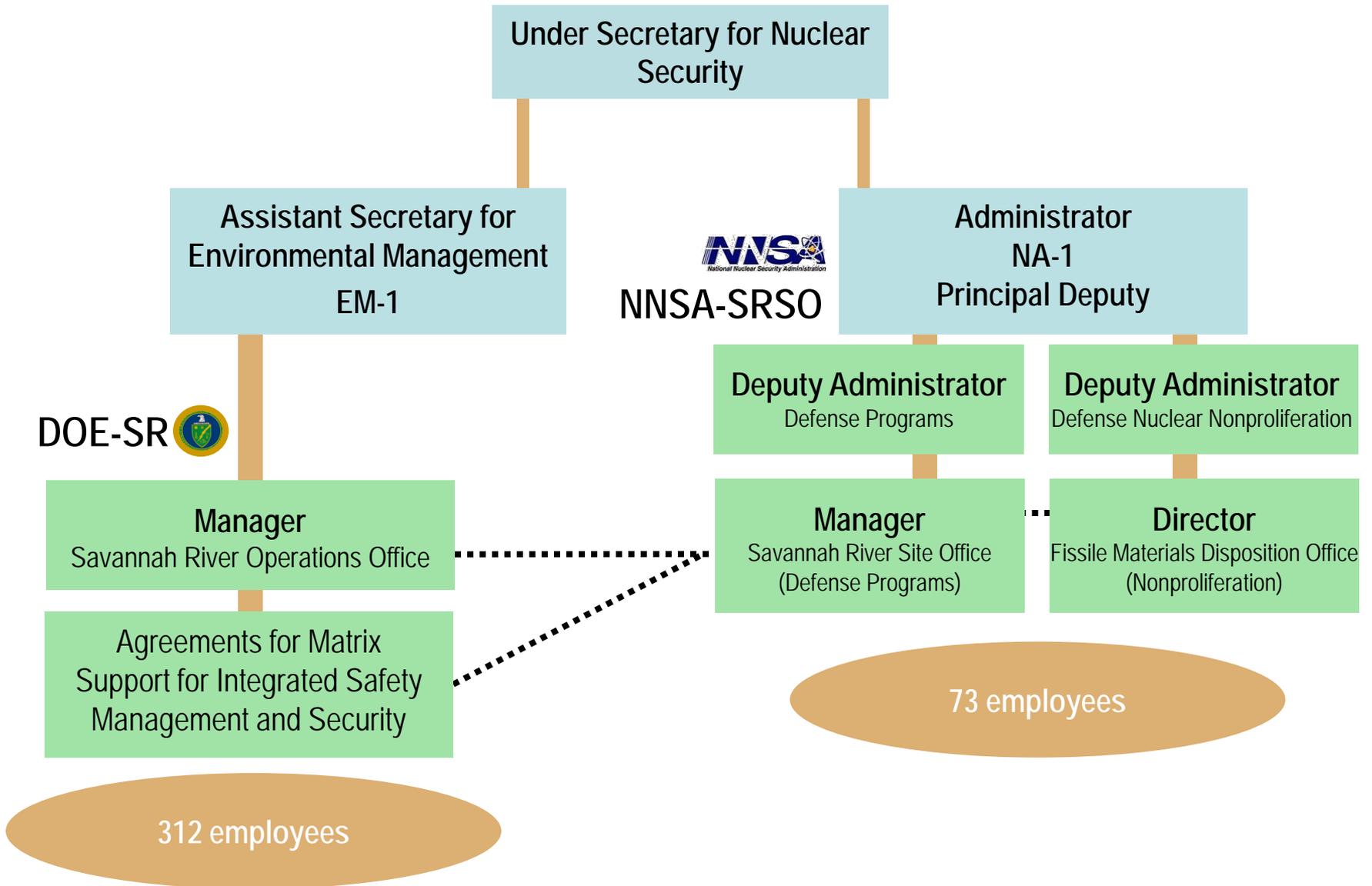
SRS Basic Facts cont'd.



• **Contractors/Tenants**

- Savannah River Nuclear Solutions (includes SRTO)
- Savannah River Remediation
- Wackenhut Services Incorporated
- Shaw Areva MOX Services
- Parsons
- University of Georgia
- U.S. Forest Service
- Ameresco

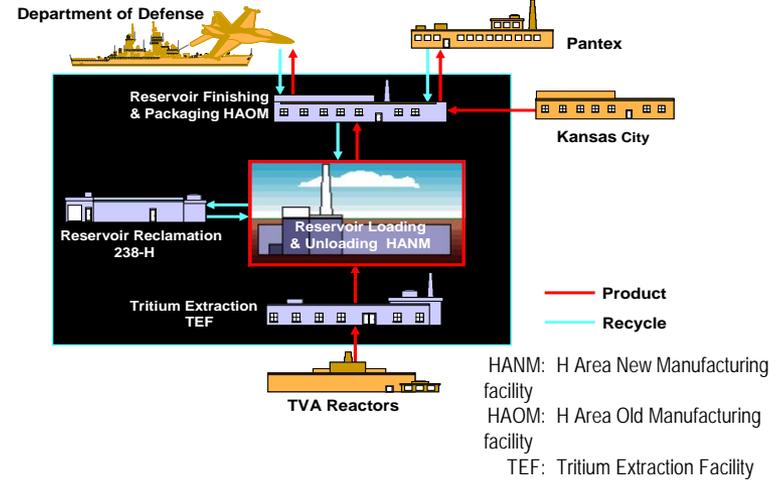
- **Site Budget ~\$2.4 Billion (includes ARRA)**



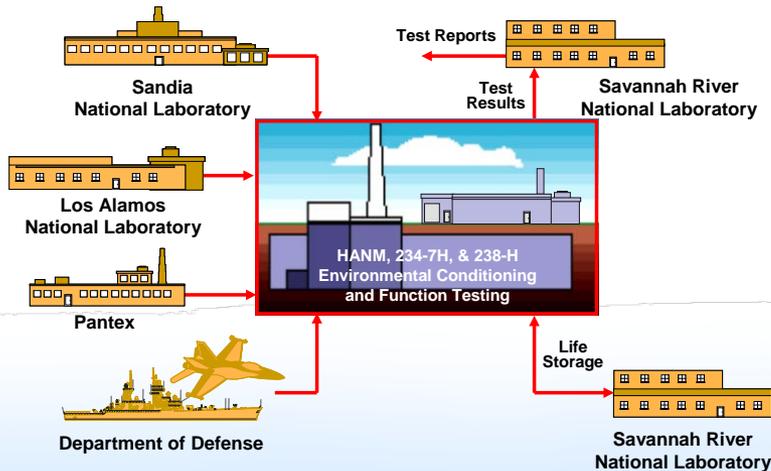
Overview of Tritium Programs' Stockpile Missions

- **Nuclear Stockpile Maintenance Mission**
 - Reservoir reclamation
 - Reservoir loading / finishing
 - Packaging / shipping
- **Nuclear Stockpile Evaluation Mission**
 - Environmental conditioning
 - Function testing
 - Post-function test evaluation
- **Tritium Supply Mission**
 - Tritium extraction
 - Reservoir unloading / recycle

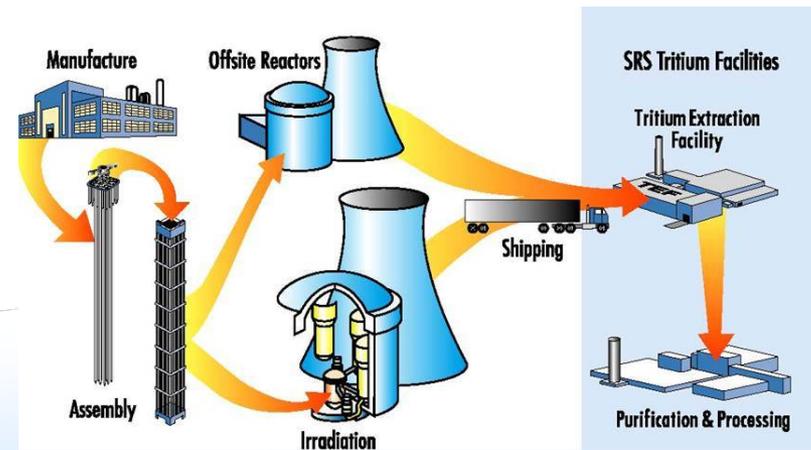
Nuclear Stockpile Maintenance Mission



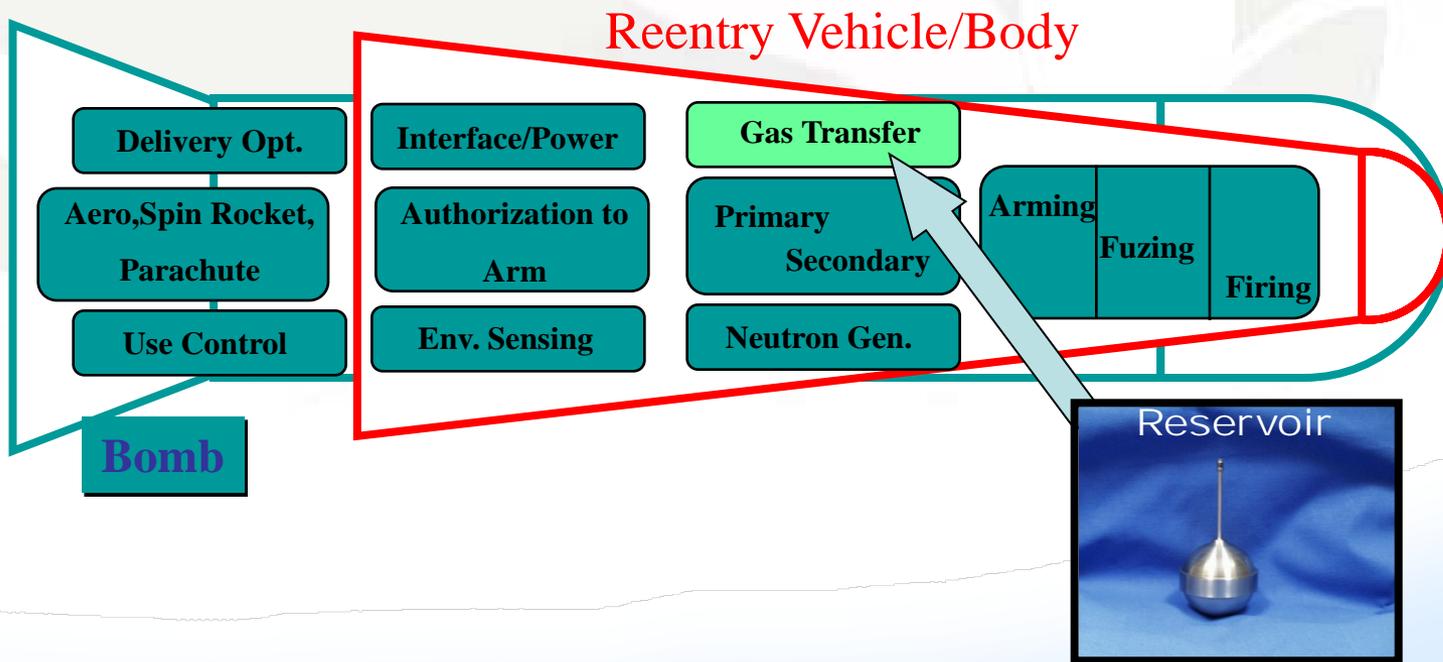
Nuclear Stockpile Evaluation Mission



Tritium Supply Mission



- Limited Life Component Exchange - recycle of tritium and loading, unloading & shipping of tritium/deuterium-filled reservoirs



Active Stockpile Support by SRS

WEAPON DESIGNATION		RESERVOIR DESIGNATION
B61-3	BOMB	1M / 2M
B61-4	BOMB	1M / 2M
B61-7	BOMB	1M / 2M
B61-11	BOMB	1M / 2M
W76-0	TRIDENT	1X
W76-1	TRIDENT	2X
W78-0	MINUTEMAN MISSILE	LF7A
	MINUTEMAN MISSILE	LF7B
W80-0	CRUISE MISSILE	1K
W80-1	CRUISE MISSILE	1K
B83-1	BOMB	SP993
W87	MINUTEMAN MISSILE	SP1101
W88	TRIDENT	4T

7 Basic Systems

9 Reservoir Types

Loading Line



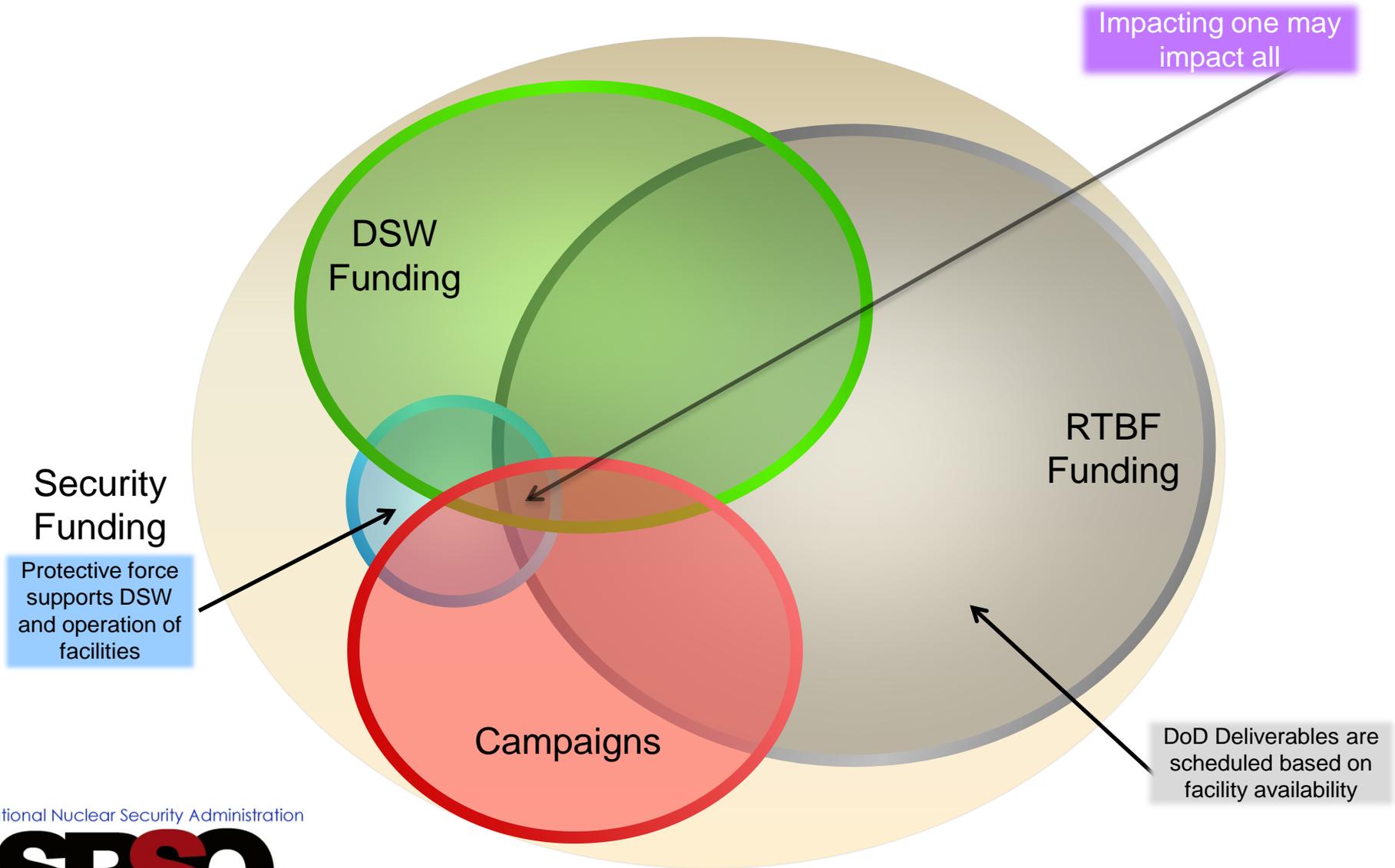


He-3 Mission



- **He-3 is a light, non-radioactive isotope of Helium that results from the β -decay of tritium**
- **Very rare on earth**
- **Applications**
 - Neutron detectors
 - Oil/gas exploration
 - Medical imaging
 - Cryogenics
- **Tritium Facilities are the only source of He-3 in the U. S.**
- **He-3 byproduct is purified and bottled in gas cylinders.**
- **He-3 Integrated Product Team (managed out of the White House) controls distribution of He-3 to both government and commercial users.**
- **Existing purification and bottling facility will be replaced by new facility in FY12.**

All Major Funding Sources At SRT0 Are Closely Integrated





Challenge: Maintaining the history of performance excellence.....

- ***Mission critical functions performed by the M&O***
 - World class SRNL Tritium R&D and operational support
 - Nuclear Waste Management Services & Disposal
 - Environmental & Health Services
 - Operational Management & Infrastructure (Emergency Services, Security, IT, Cybersecurity, etc.)
 - General Infrastructure & Utility Services
 - Financial Management Services
- ***Anticipated changes at the site over next 5-10 years.....***
 - Workforce demographics – Aging workforce with SRS mission evolution
 - Limited & constrained mission resources – *Lack of infrastructure reinvestment*
 - M & O contract option recompetete consideration– 2013
 - Maturing Contractor Assurance System & “One NNSA” Enterprise
 - Emerging NNSA Nuclear Nonproliferation operations – 2013 & 2016
 - Tritium production requirements
 - Modernization of Tritium systems, processes and facilities