



U.S. DEPARTMENT OF
ENERGY



State of SRS

Environmental Management

Mike Budney

DOE-SR Manager

CNTA Up & Atom

February 20, 2020

SRS Partners and Missions Today

65% EM
Environmental Management

- Management, stabilization and disposition of nuclear materials
- Management and disposition of solid, liquid and transuranic wastes
- Spent fuel management
- Environmental remediation and cleanup

27% NNSA
National Nuclear Security Administration

- Tritium operations and extraction
- Nonproliferation support
- Uranium blending and shipping
- Foreign fuel receipts
- Preliminary planning for proposed pit production mission

8% WFO
Work for Others

- Other federal agencies
- Other DOE sites
- Private industry
- Other minor entities

Who's at SRS

Savannah River Nuclear Solutions
Management and Operations;
Savannah River National Laboratory

Savannah River Remediation
Liquid Waste Operations

Parsons
Salt Waste Processing Facility

Centerra
SRS security

University of Georgia
Savannah River Ecology Laboratory

U.S. Forest Service—Savannah River
Federal entity

SRS Snapshot Today

11,150

current employee workforce (12/31/19)

\$2.2B

FY20-enacted levels:

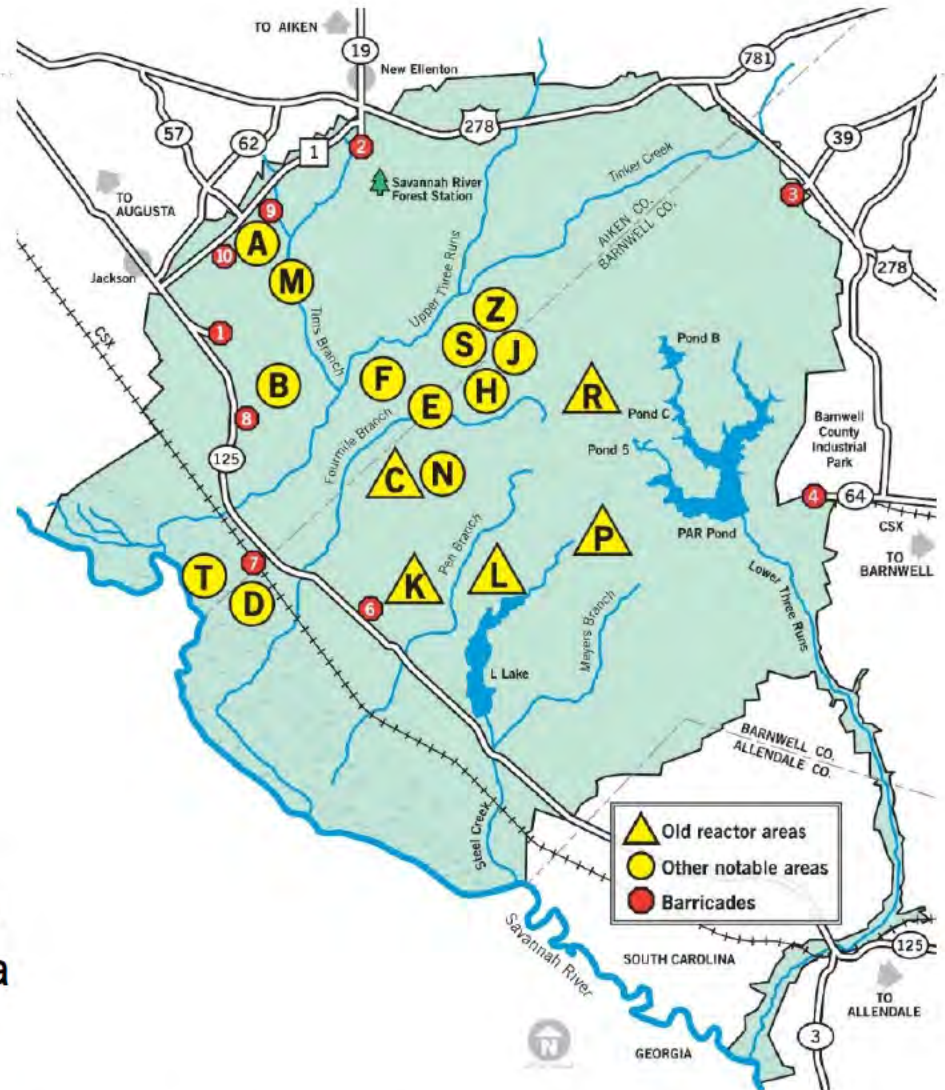
- *EM \$1.63B + NNSA \$613M
(*EM funding increase of \$91M above the FY19-enacted level)

\$2.6B

annual regional economic impact across SC/GA area

\$200M

spent annually in local procurements



SRS-EM FY2019 Year in Review

Nuclear Materials

- ✓ Processed Canadian Liquid HEU, HFIR & MTR fuel
- ✓ Supported NNSA in successful removal of 1 MT Pu
- ✓ Removed 235-F MAR & developed IP revision

Solid Waste

- ✓ Achieved 95% complete for legacy TRU waste removal

Liquid Waste (LW) Program

- ✓ Processed 614 Kgal of salt solution via ARP/MCU (404 Kgal) and TCCR #1 (210 Kgal) Demonstration
- ✓ LW Contractor suspended ARP/MCU operations in June and proceeded with transfer line modifications outage to allow SWPF tie-in
- ✓ DWPF poured 35 canisters; double-stacked 191 canisters in GWSB #1

Saltstone Production & Disposal Facilities (SPF)

- ✓ Prepared for SWPF S/U & processed 711 Kgal of DSS in saltstone and prepared for SWPF startup
- ✓ SDU 7 construction on schedule; started SDU 8/9

Soil & Water Remediation & Facility D&D

- ✓ D-Area Ash Project CD-4 approved
- ✓ Met all 72 regulatory commitments in FFA & RCRA Permit

Savannah River National Laboratory

- ✓ Designed/developed a Mobile Plutonium Facility “MPF Lite”
- ✓ Designed/procured a transport cask & target loading system for the MARK-18A (rare Pu isotope recovery)



H-Canyon



SDUs

SRS-EM FY2020 Priorities

Nuclear Materials

- Complete Canadian Liquid HEU shipments
- Complete K-Area optimization outage
- Receive 17 DRR shipments
- Dissolve HFIR & MTR fuel at FY19 rate (**\$20M plus-up**)

Liquid Waste

- SWPF Hot Commissioning/Operations
- DWPF will produce 84 canisters
- Develop F-Tank Farm Deactivation Plan by 6/30/20
- Modify TCCR#1 for 2nd tank to establish TCCR#2 feasibility
- Continue SDU construction for SDUs 7/8/9

Soil & Water Remediation & Facility D&D

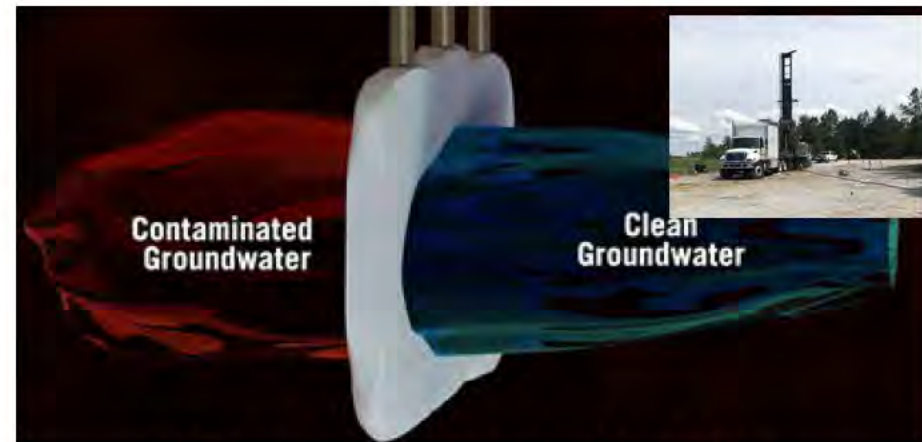
- Execute 70 enforceable FFA/RCRA commitments
- Begin acceleration of D-Area Operable Unit D&D of ancillary structures and powerhouse (**\$5M plus-up in FY20**)

Savannah River National Laboratory

- B-Block Shielded Cell Windows for MK-18 recovery
- Advance lab modifications/transfer F/H Laboratories
- Advance emerging & experimental capabilities in Cybersecurity, Remote Sensing, Process intensification & Smart Manufacturing



9975 / 3013 Storage in K-Area

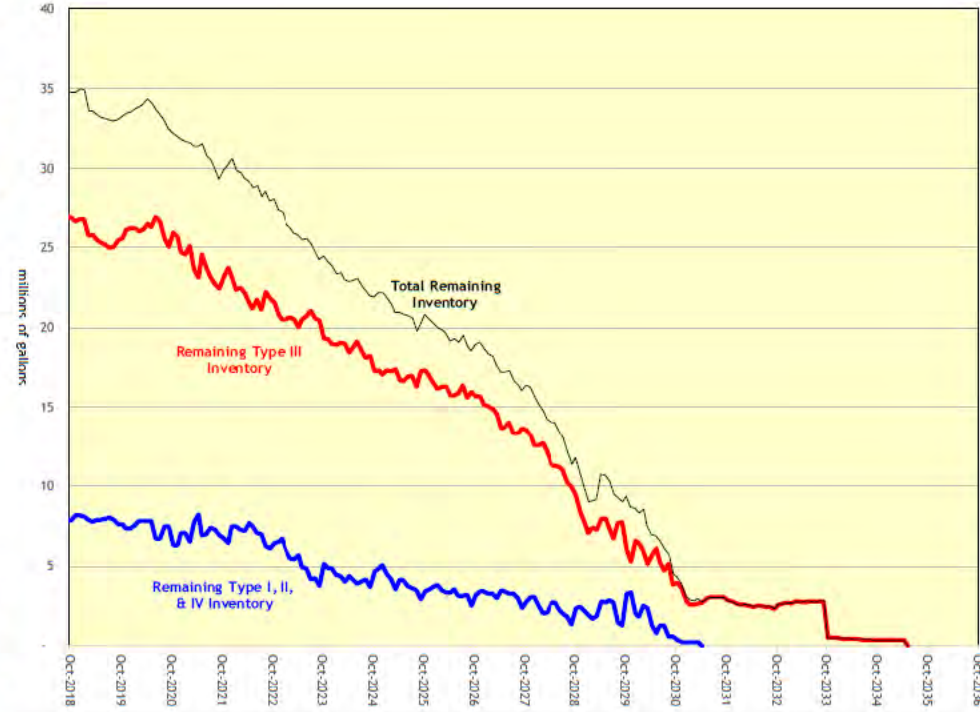
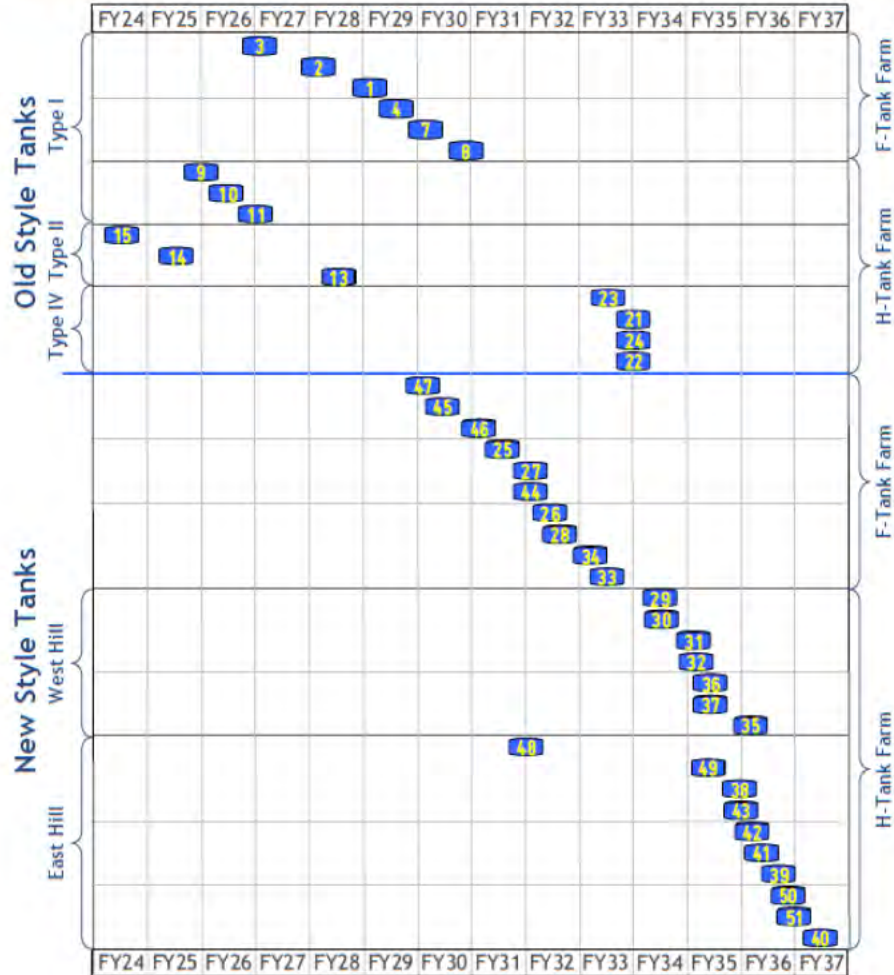


**P-Area Permeable Reactive
Barrier Project**

SRS-EM Vision for the Future

Liquid Waste (Tank Removal from Service)

Remaining Tank Inventory



SRS-EM Vision for the Future

Nuclear Materials

5 Year Vision

- Increase H-Canyon dissolution rate
- Initiate electrolytic dissolver operations; begin dissolution of L-Basin's inventory of *non-aluminum* based fuels
- KIS Glovebox operating at a 4-shift optimized rate
- Deactivate excess non-operating nuclear facilities (235-F, F & H Analytical Laboratories & Receiving Basin for Off-site Fuel (RBOF)) in preparation for decommissioning



Fuel Receipt



**Empty Fuel Cask in
L-Basin**

SRS-EM Vision for the Future

Soil & Groundwater/D&D Regulatory Scope*

5 Year Vision

- C-Area Groundwater Removal Action FY19 - FY20
- P-Area Groundwater Removal Action FY19 - FY20
- G-Area Oil Seepage Basin Remedial Action (RA) FY19 – FY20
- D-Area Coal Storage Area Removal Action FY19 – FY21
- D-Area Groundwater Treatability Study FY20-FY21
- D-Area Groundwater (Field start, ROD & RA Start) FY20 – FY25
- Central Shops Early Construction & Operational Disposal Sites (ECOD's) (Field Start, ROD & RA Start) FY20 – FY25
- D-Area Operable Unit (OU) 2nd Early Action (ROD & RA) FY21 – FY23
- Lower Three Runs Integrator Operable Unit (IOU) (ROD & RA Start) FY21-FY24
- Advanced Tactical Training Area (ATTA) (Site Evaluation Report) FY25
- F-Area Ash Landfill 288-F (Site Evaluation Report) FY25

** Consistent with proposed FY20 FFA Appendix E submitted 11/15/19*

SRS-EM Contract Actions

- **Paramilitary Services**
 - Proposals undergoing evaluation
- **Salt Waste Processing Facility**
 - DOE ORR complete
 - Hot Commissioning following CD-4
 - Parsons one year of operations after Hot Commissioning then shift to IMCC contractor
- **Integrated Mission Completion Contract**
 - Special announcement provided Performance Work Statement
 - No draft RFP; will incorporate comments received for Idaho DRFP
- **Management & Operating**
 - Extended through 9/30/20 with 2 one-year options
- **Savannah River National Laboratory**
 - Industry/Community Day for RFI
 - Draft RFP upcoming
- **Construction Projects**
 - AMC: Continue design of Advanced Manufacturing Collaborative on USC Aiken campus
 - EOC: Award final design contract and begin design execution

SRS-EM FY21 President's Budget Request

Request Highlights:

- February 2020 roll-out of President's Budget Request proposes \$1.7B in Fiscal Year 2021 for Environmental Management operations at SRS
- *Good News:* \$72.9M uptick from the \$1.63B FY-20 enacted
- Provides the resources necessary to continue tangible and sustained progress in tackling the largest environmental risk across the EM program --- tank waste
- Additional \$25M allows for construction of the Advanced Manufacturing Collaborative on USC Aiken campus

SRS: Celebrating a Proud Legacy of 70 Years of Service

- ✓ *Proud of a legacy of serving this country in safely carrying out the important missions we are charged with*
- ✓ *Proud of the great generations of employees who have contributed to the Site's success over the last seven decades*
- ✓ *Proud of the strong legacy of partnerships and support from our community and neighbors*

