



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Closure of H Tank Farm

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DOE-Savannah River

Savannah River Site Citizens Advisory Board
March 23, 2015

Purpose

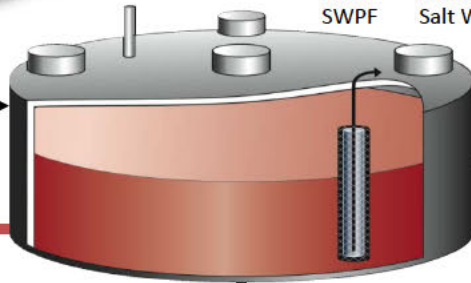
- Address Waste Management Committee 2015 Work Plan topic
- Provide update of H-Area Tank Farm Closure
 - Status of Regulatory Drivers
 - Closure Schedule and Public Comment Opportunities
 - Tank 16
 - Tank 12
 - Questions?

SRR Liquid Waste Program (with current status)



Legacy Liquid Waste

45 tanks
37 Mgal
268 MCi



Salt waste
7.6 Mgal
treated

Sludge waste
3.9 Mgal
treated



<1% radionuclides remain in tanks

51 Tanks

- 6 grouted & operationally closed
- 2 heel removal complete
- 6 bulk waste removal efforts complete
- 64% empty (old style)
- 21% empty (new style)

Legend:

- ARP Actinide Removal Process
- DWPF Defense Waste Processing Facility
- MCU Modular Caustic Side Solvent Extraction Unit
- SWPF Salt Waste Processing Facility

Operational Goals

- ✓ Radionuclides to glass
- ✓ Chemicals to Saltstone
- ✓ Tanks cleaned and operationally closed



Poured 3,917 cans of projected 8,582 58 million curies immobilized in glass

Most radionuclides to glass



Salt Processing



11 Mgal grout disposed containing 433 kCi



SWPF (under construction)

<<1% radionuclides to saltstone

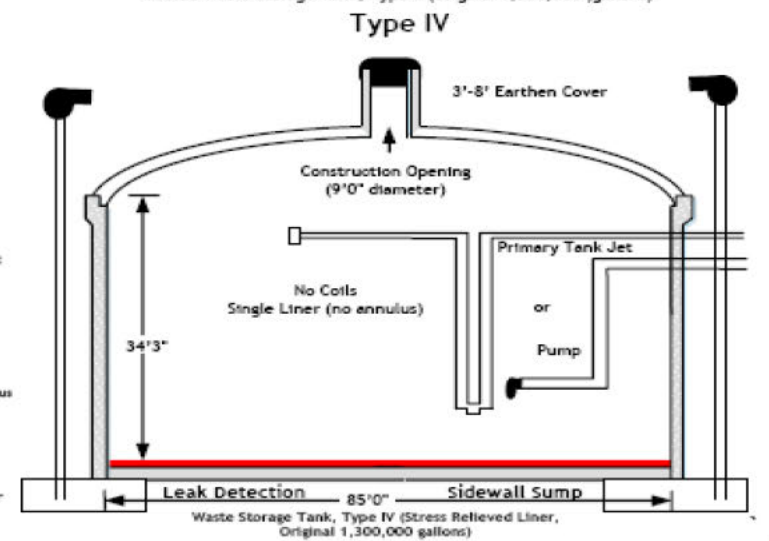
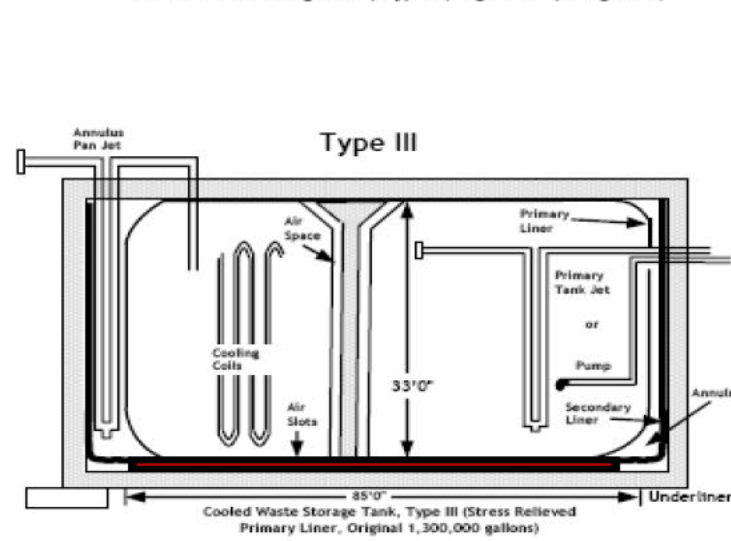
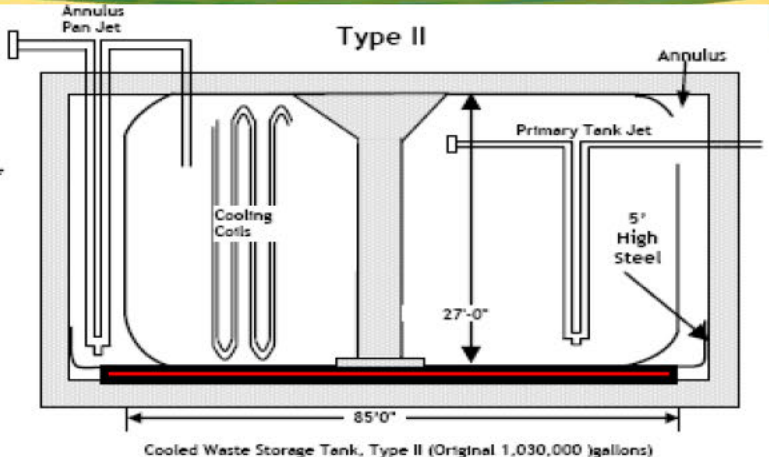
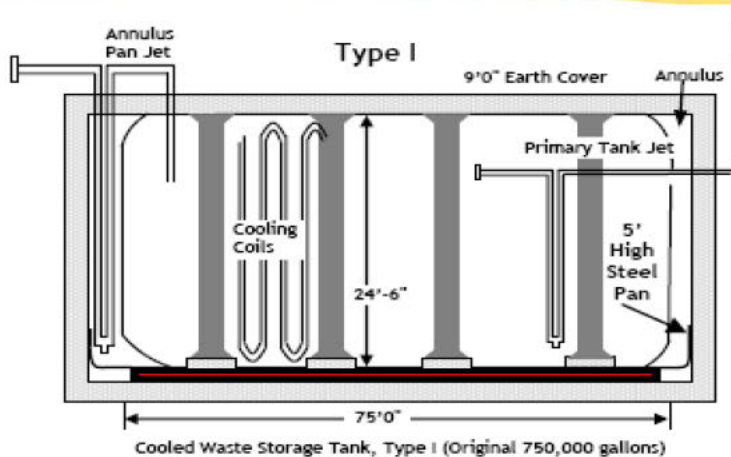
Acronyms

| | |
|------------|--|
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| DOE | Department of Energy |
| EPA | Environmental Protection Agency |
| FFA | Federal Facility Agreement |
| HTF | H Tank Farm |
| LWTRSAPP | Liquid Waste Tank Residual Sampling and Analysis Program Plan |
| LWTRS-QAPP | Liquid Waste Tank Residual Sampling Quality Assurance Program Plan |
| NDAA | Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 |
| NEPA | National Environmental Policy Act |
| NRC | Nuclear Regulatory Commission |
| RCRA | Resource Conservation and Recovery Act |
| SCDHEC | South Carolina Department of Health and Environmental Control |
| SRR | Savannah River Remediation |
| SRS | Savannah River Site |

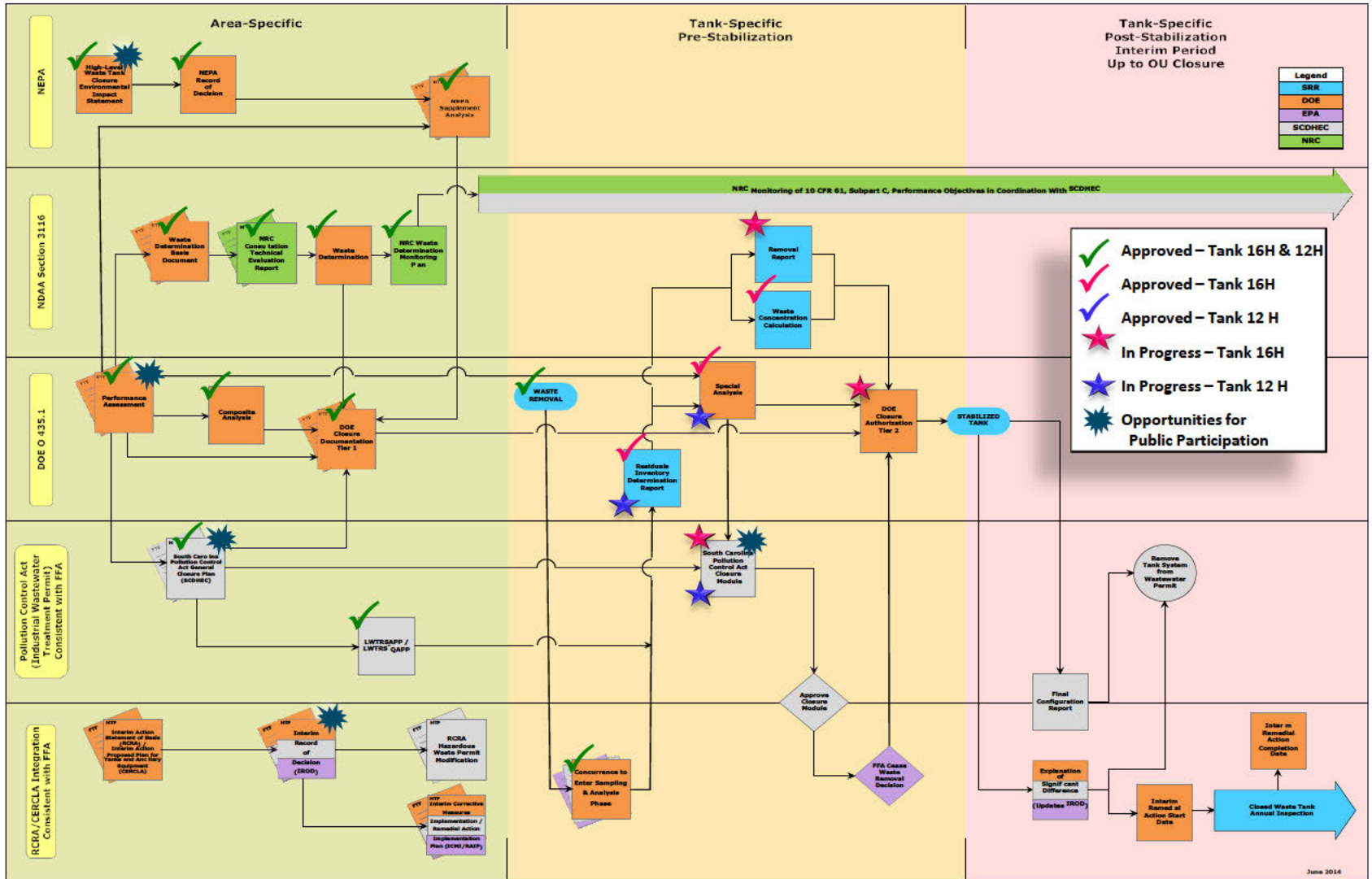
H-Tank Farm



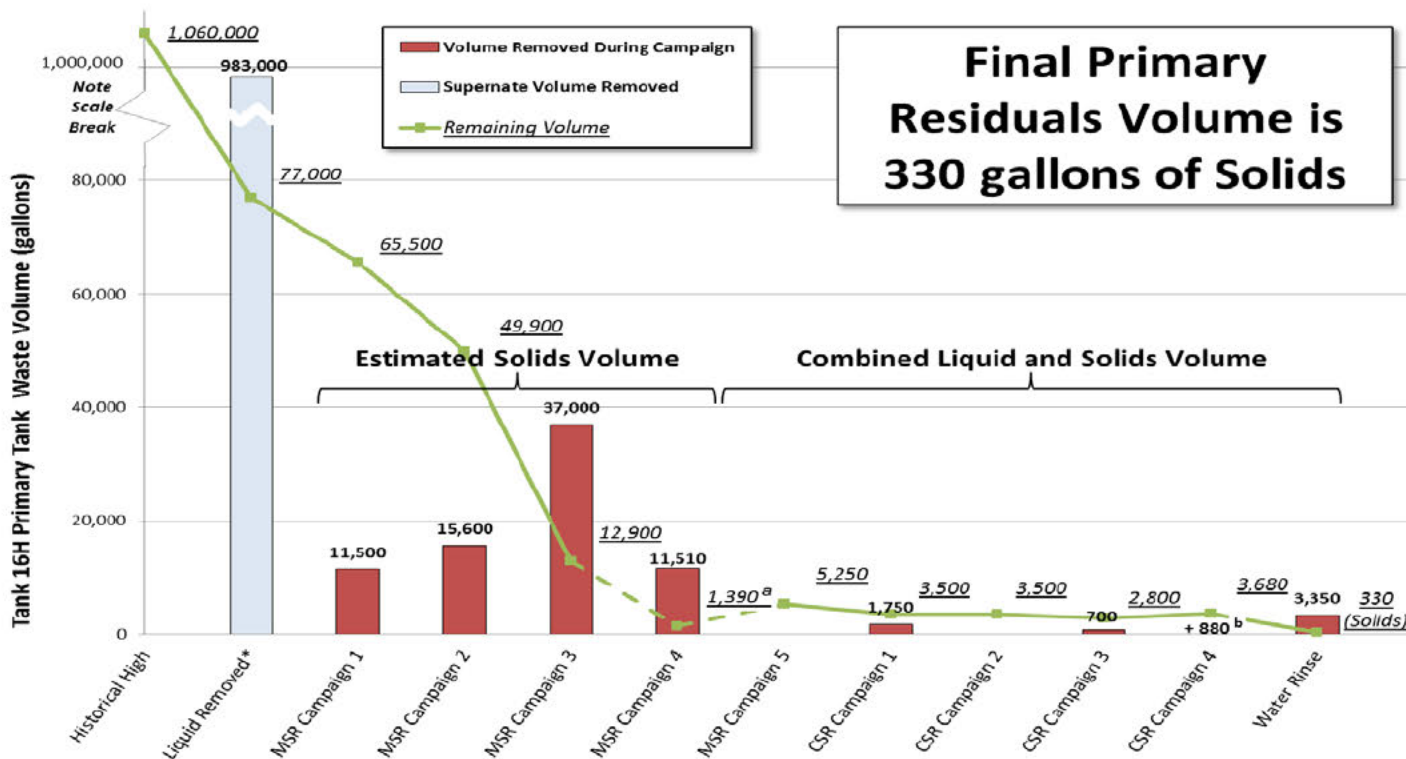
Waste Storage Tank Types



SRS Tank Closure Regulatory Roadmap for Tanks 16H and 12H as of March 16, 2015



Tank 16H Primary Tank Waste Removal by Phase



Final Primary Residuals Volume is 330 gallons of Solids

* See Table 3.1-1 for details on liquid removed

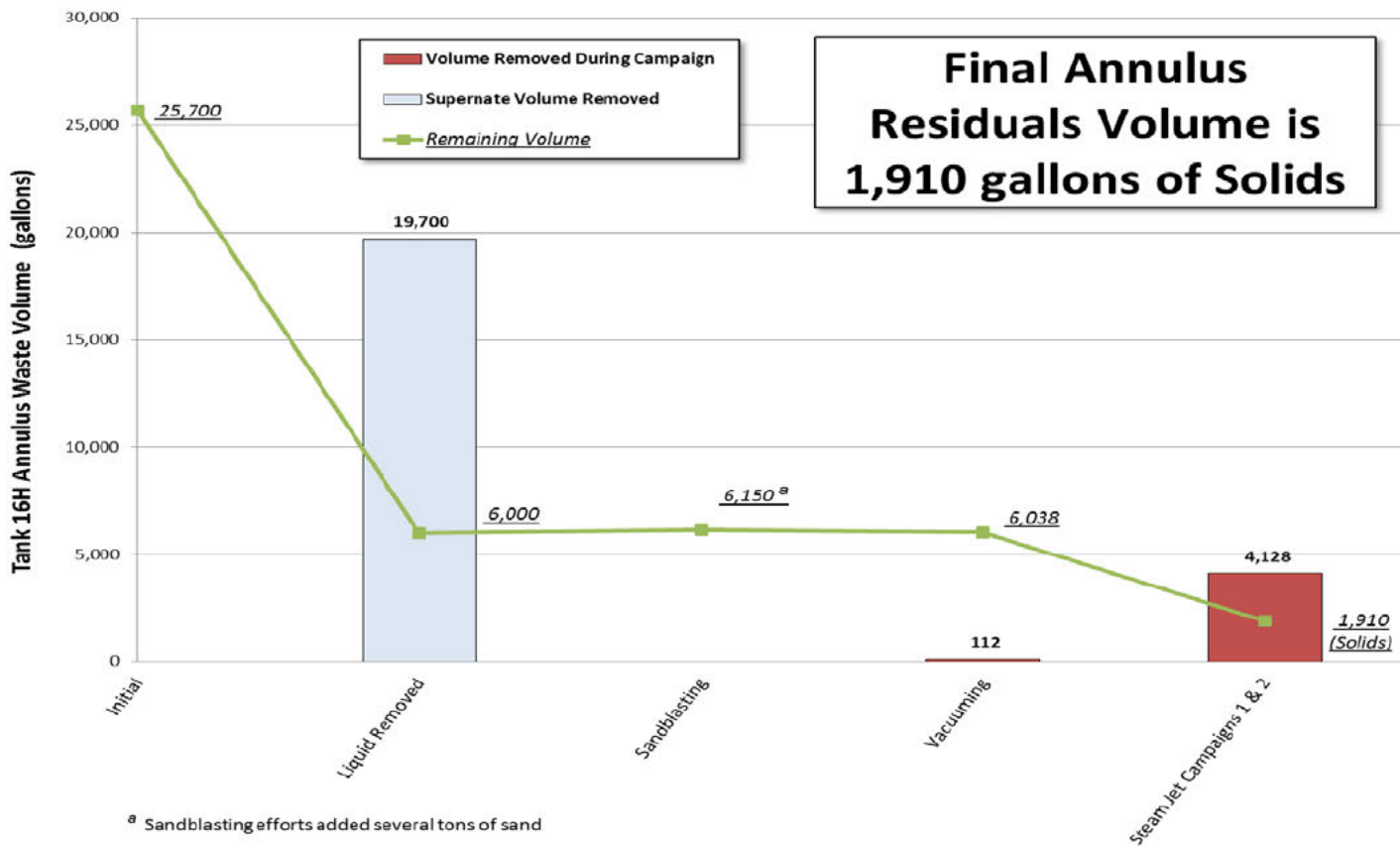
^a This volume may have been underreported due to uncertainty in the volume estimation

^b The apparent volume increase may be due to uncertainty in the volume estimation and/or oxalate precipitation

Panoramic View of Tank 16H Primary Tank After Waste Removal



Tank 16H Annulus Waste Removal by Phase



IP-35
View of NW



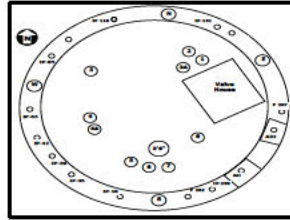
IP-35
View of SE



IP-118
View of SW



IP-118
View of NE



IP-207
View of NW



IP-207
View of SW



IP-262
View of SW

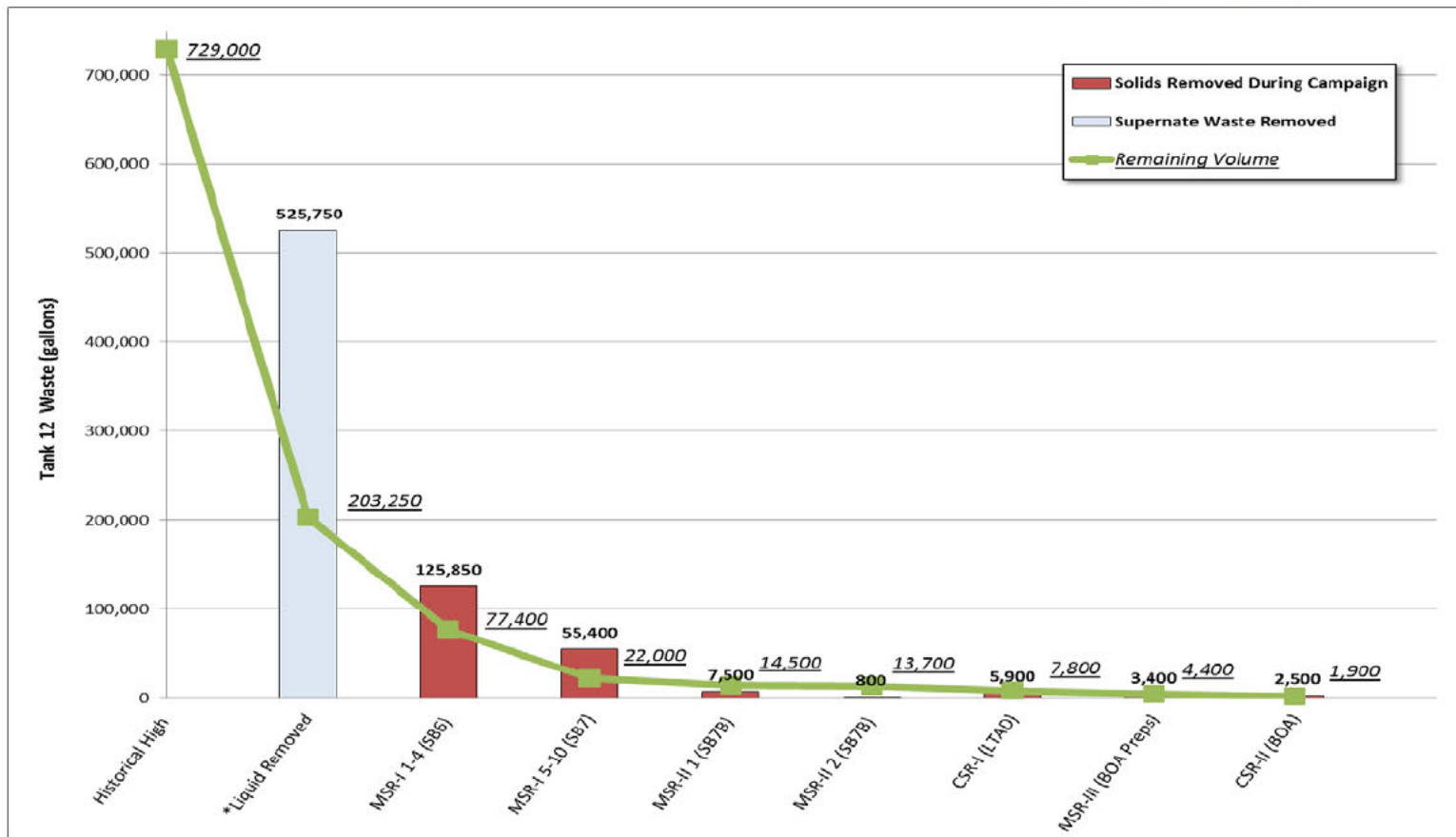


IP-262
View of NE



- Tank 16 Closure Module public review March 10, 2015 – April 9, 2015
 - Based on residual waste sample analysis
 - Submit comments to: Bridget Clarke, SCDHEC/Water, 2600 Bull Street, Columbia SC 29201-1708 or email clarkebm@dhec.sc.gov
 - Public meeting at 6:00 pm on March 25, 2015 at Aiken Design Center
 - Documents posted on DOE web site at <http://sro.srs.gov/fhtankfarm.html>
- Final agency approvals (SCDHEC, EPA, and DOE) expected about June 2015
- Grouting of Tank 16 planned to be between June – September 2015
- Federal Facility Agreement Closure date is October 27, 2015

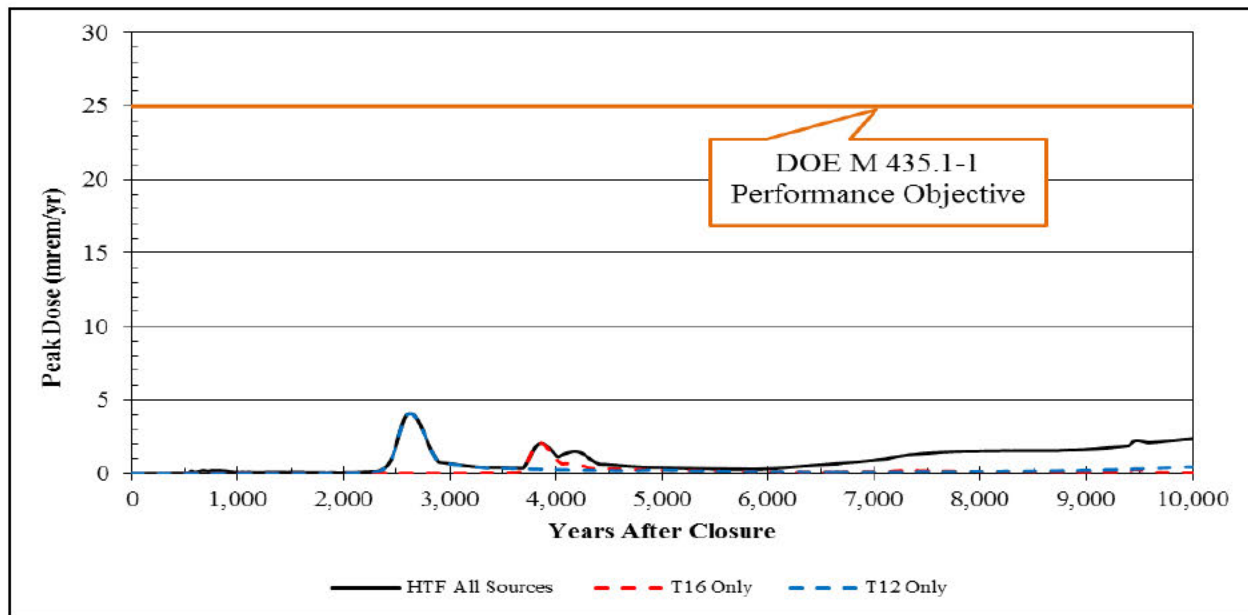
Tank 12H Waste Removal by Phase



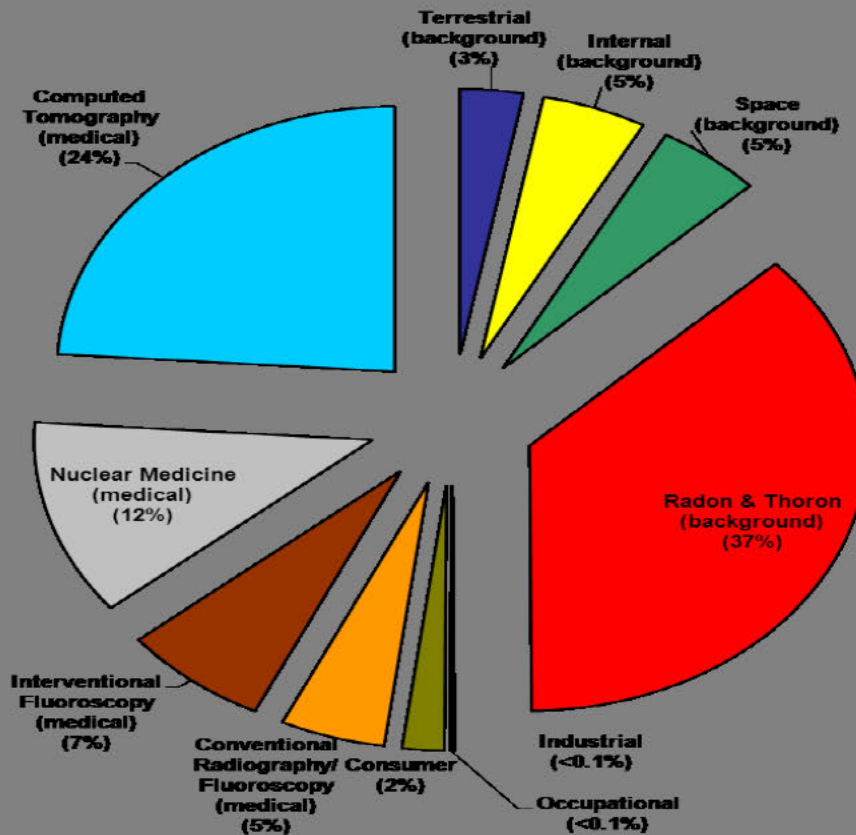
Panoramic View of Tank 12H Primary Tank After Waste Removal



100-Meter Member of Public Groundwater Pathway Dose with Tank 12 and 16 Individual Contributions



Breakdown of radiation exposure sources associated with the 620 mrem/yr average annual dose to person living in United States



- Tank 12 Closure Module - 2 Step Process
 - Closure Module
 - Public review anticipated for 3rd quarter FY 2015
 - Based on forecasted inventory and Tank 16 Special Analysis
 - Closure Module Addendum
 - Public review anticipated for 1st quarter FY 2016
 - Based on residual waste sample analysis and Tank 12 Special Analysis
 - All documents will be posted on DOE website at
<http://sro.srs.gov/fhtankfarm.html>
- Final agencies approvals (SCDHEC, EPA, and DOE) expected 2nd quarter FY 2016
- Grouting of Tank 12 by end of 3rd quarter FY 2016
- Agencies are discussing Federal Facility Agreement closure date

- DOE completed HTF Closure decisions in December 2014
- Activities underway to complete grouting of Tank 16 by September 30, 2015
 - Public Comment period ends April 9, 2015
 - Public Meeting Wednesday, March 25, 2015 at Aiken Design Center
- Activities underway to complete grouting of Tank 12 by the end of 3rd quarter FY 2016
 - Two public comment periods
 - Closure Module anticipated for 3rd quarter FY 2015
 - Closure Module Addendum anticipated for 1st quarter FY 2016
- Questions?

DOE will post documents at <http://sro.srs.gov/fhtankfarm.html>