EPA's Role in the Site Remediation and Cleanup Program at SRS

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Overview

- Introduce EPA
- Origin of the EPA Superfund program
- How Superfund applies to SRS
- EPA's involvement in SRS remediation program

United States Environmental Protection Agency (EPA)

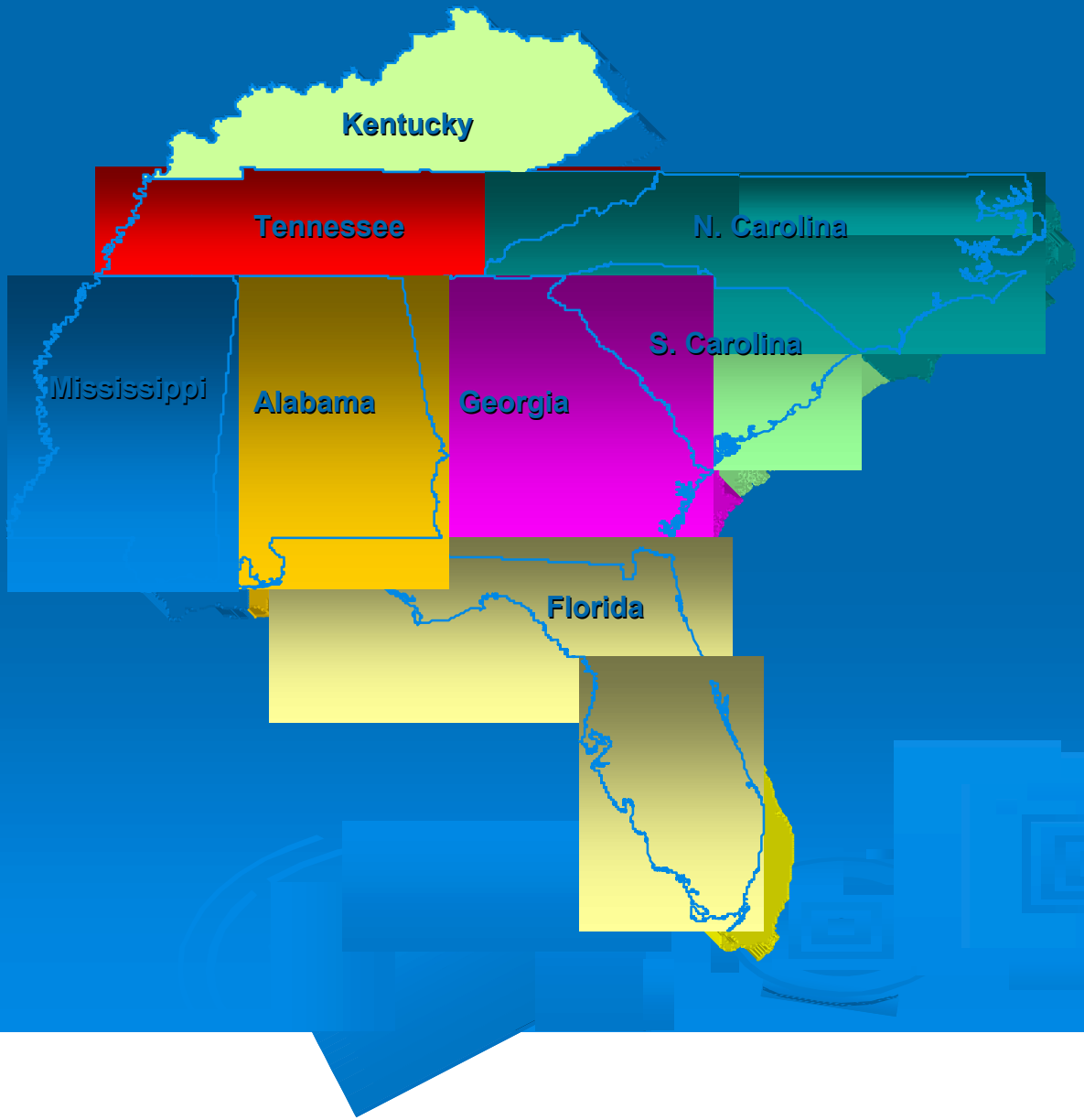
mission:

To protect human health and the environment

- formed in 1970 by President Nixon
- independent agency
- Congress writes environmental laws; EPA writes regulations to implement laws
- enforce regulations
- set national standards

United States Environmental Protection Agency (EPA)

U.S. EPA Region 4



Origins of Superfund

- CERCLA: Comprehensive Environmental Response Compensation and Liability Act (Superfund)
- “reactive” law, addressing previously contaminated sites
- Established in response to disasters like Love Canal, NY and Valley of the Drums, KY

CERCLA provides authority for the federal government to respond to releases or threatened releases of hazardous substances

National Contingency Plan

- National Contingency Plan (NCP) is the set of implementing regulations – “rules”
- prescribes the procedures for conducting CERCLA response actions
- establishes the risk level that triggers clean up action

CERCLA at Federal Facilities

Executive Order 12580 (1987):

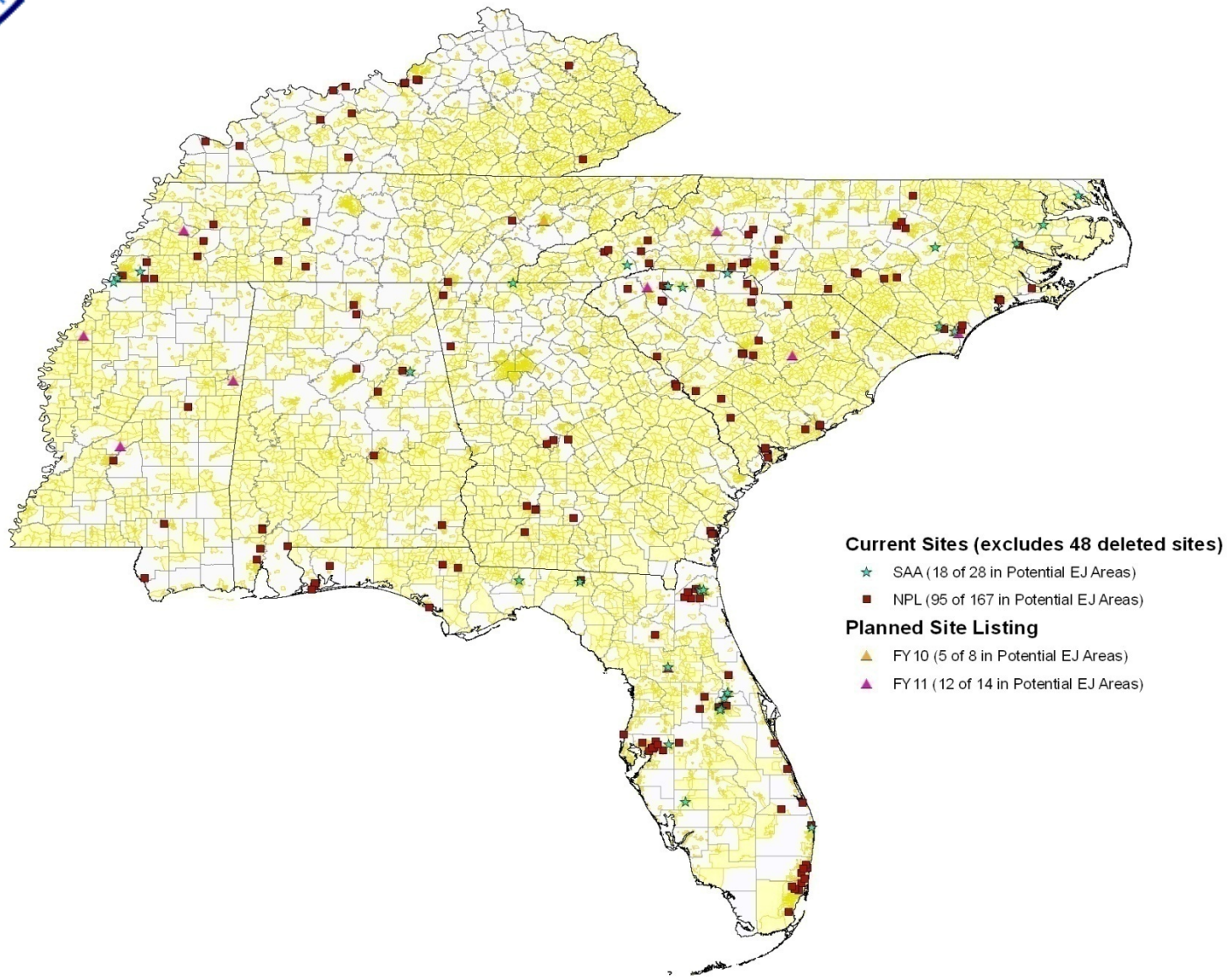
"Superfund Implementation"

- delegates to DOE and DoD the responsibility to implement certain provisions of CERCLA
- makes DOE and DoD the "lead agency"
- Federal facilities must follow policies and procedures as spelled out in the NCP

CERCLA at Federal Facilities

Federal Facilities (DoE, DoD, etc.) are subject to CERCLA requirements similar to private entities

National Priorities List



Department of Energy Facilities in EPA Region 4

- Savannah River Site – South Carolina
- Paducah Gaseous Diffusion Plant - Kentucky
- Oak Ridge Reservation - Tennessee

EPA Region 4
Department of Defense Facilities

34 NPL or BRAC facilities – Army, Navy, Air Force, Marines, NASA

Savannah River Site

- Added to the Superfund National Priorities List – December 1989
- SRS required to have a Federal Facilities Agreement (agreement with State &EPA)

Federal Statutes for Cleanup of Federal Facilities

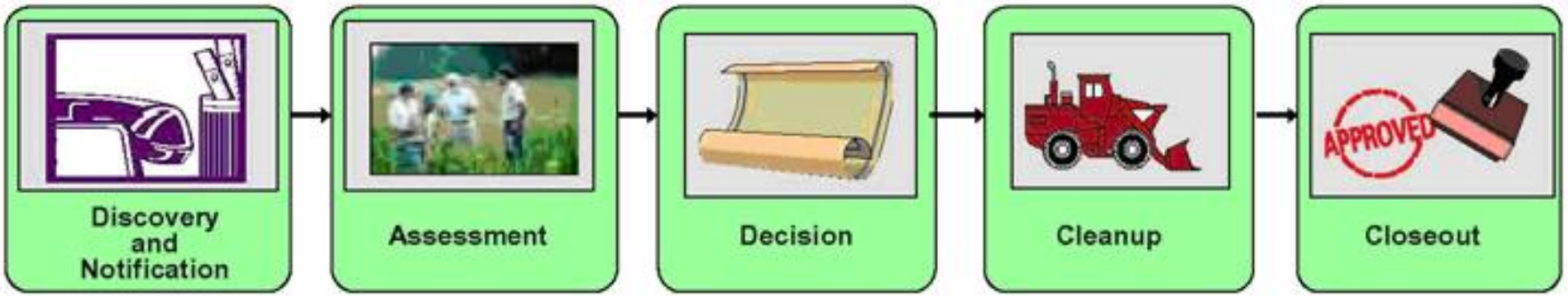
- CERCLA
- RCRA
- Safe Drinking Water Act (imminent and substantial endangerment provision of the SDWA)

SRS - Federal Facility Agreement
August 1993

Three party agreement (DOE, EPA, SCHEC)

- Governs investigation and remediation program
- Roles and responsibilities of each party
- Schedules and deadlines
- Enforceable milestones, penalties
- Prioritizes work
- Procedures to working together
- Dispute resolution

Overview of the Response Process under CERCLA and the NCP



EPA's Role

- Oversight of remedial actions at SRS
- Ensure adherence to the NCP, CERCLA, FFA, guidance
- Technical and procedural assistance
- Information, guidance, training

EPA's Role

EPA and SCDHEC concurrence required:

- Select of remedies (Record of Decision)
- Implement remedies
- Operate remedies
- Determine success of remedies

Involvement – early & often –

- Process leading up to selecting remedies
- Designing and installing remedies
- Monitoring and evaluating effectiveness of remedies

EPA SRS Team

- James Barksdale – RPM
- Martha Berry – RPM
- Cathy Amoroso – RPM
- Rachel Hall - RPM
- Rob Pope – RPM & FFA Manager

EPA SRS Team Support

- Health Physicist (Jon Richards)
- Hydrogeologists (Ben Bentokowski, Kay Wischkaemper)
- Risk Assessor (Tim Frederick)
- Attorney (Brian Thompson)
- SJTI, tracking (Carolyn Haugabook)
- Community Involvement (Kyle Bryant)
- Health Physics (U.S. Army Corps of Engineers)
- TechLaw – Regional Oversight Contract
  - Document Review, Field Oversight, Meeting Support

EPA Decision Process:

RPM level (Rachel, Jim, Martha, Cathy, Rob)

- EPA RPM involved in site investigation, remedial investigation, risk assessment, feasibility studies, treatability studies === via the Core Team and Scoping process
  - Collaborating on sampling and monitoring plans
  - Site visits and inspections, field oversight
  - Reviewing data
  - Reviewing documents
  - Commenting on documents and resolving issues
  - Ensuring adherence to NCP, EPA guidance
  - Meetings, teleconferences, team work
  - Considering public input
- RPM involved in identifying preferred remedy(ies)

EPA Decision Process:
EPA Management Level

- EPA Management and EPA HQ:
  - consider proposed remedies
  - ensure national consistency and adherence to NCP, national guidance
  - ensure that plan has State concurrence
  - give approval to proceed with Proposed Plan
- EPA RPM represents the SRS Core Team's decisions

EPA Decision Process:
Superfund Division Director

- Proposed Plan issued to the public
- DOE writes the Record of Decision, considering public comments (core team participation)
- DOE & SCDHEC sign the ROD
- EPA RPM briefs EPA Superfund Director
- EPA signs the Record of Decision

EPA Involvement Continues

- Ensure remedy is:
  - designed and constructed according to plan
  - achieving the objectives outlined in the ROD
  - protective of human health & environment
- Regular effectiveness monitoring
- 5 Year Remedy Reviews
  - EPA management and HQ involved in findings, and follow-up to 5-year reviews

Three Party Decisions

- Decision Documents “belong” to DOE, SCDHEC and EPA
- EPA must sign a ROD for it to be final

Collaboration

- Team work approach employed to ensure meeting all FFA requirements while streamlining and accelerating process
  - Core Team
  - Scoping meetings
  - Design teams
- Requires dedication and commitment from each of the three parties

Current Activities and Projects

- FFA commitments
- Design team & Protocols
- M Area
- P Area (Reactor)
- D Area
- T Area (TNX)
- R Area (Reactor)
- Gun Sites
- ECODS
- A Area Units
- High Level Waste Tanks
- LLWD Facility (E Area)
- HWCTR
- CMP
- L Area Groundwater
- Land use controls
- Deer Study
- D&D
- 5 year remedy reviews
- Field oversight
- CAB

FY2010

- Design team: sampling & analysis plans
- M Area: PER
- P Area: 2 Action Memos, RI Complete, ROD, ESD, RA start , LUCIP, EMplan
- D Area: 3 Action Memos, de-tritiation treatability study, ROD
- T Area (TNX), treatability study
- R Area: Removal start & complete, 4 action memos, 1 early action ROD, PP
- A Burning Rubble Pit/Rubble Pile, A Ash Pile & MCB/MBP: 2 RA completions
- C Burning Rubble Pit: RA Start
- HWCTR: action memo
- L Area SGW: effectiveness monitoring report, construction report
- L Area NGW: RI start and complete, Proposed Plan
- A Area Misc Rubble Pile: PER
- A Area Waste Units: RI scoping
- F Tank Farm: performance evaluation
- K, L, P BRP/RPs: gw monitoring report
- ECODS: RI complete, ROD, RA start, LUCIP
- SATA
- Gunsite 012: RI complete, Action Memo, Proposed Plan
- Gunsite 218: RI, Proposed Plan, ROD
- E Area: Interim ROD, ESD
- HWCTR
- CMP: EMR
- C, K, L reactors LUCIPs
- Deer Cesium Study
- Pen Branch IOU: periodic report
- Community Involvement Plan
- ALL HAVE ASSOCIATED EE/CAs, Risk Assessments, PPs, FS, white papers, etc.

High Level Waste Tanks

- 22 non-compliant tanks to be closed by 2022
- 2 tanks were closed in 1997
- Tanks 18 & 19 scheduled to close 12/31/2012
- Two more tanks must achieve bulk waste removal by 9/30/10
- Individual tank closure per South Carolina regulations using Closure Modules
- Tank farms are CERCLA OUs – that will have RODs
- Tank closure milestones in FFA – subject to dispute if missed

HLWT (continued)

- DOE prepares a Performance Assessment for each tank farm - EPA,SCDHEC,NRC comment
- Each tank farm also will have a General Closure Plan under the State WW permit
- SCDHEC is the lead for tanks up to the PP
- EPA reviews and issues comments to SC on tank documents up to PP

HLWT (continued)

- A Proposed Plan and Interim ROD is planned for each tank farm - individual tanks will be added to Interim ROD via an ESD as the tanks closed and exit the SC WW Permit
- Regulation of the tanks is complex
- EPA is committed along with DOE and SCDHEC to close the tanks and eliminate the threats associated with the liquid waste

Integrator Operable Units (IOUs)

Six Watershed IOUs

- Lower Three Runs
- Steel Creek
- Pen Branch
- Four Mile Branch
- Upper Three Runs
- Savannah River and Floodplain Swamp

Engineered Institutional Controls (Signage & Fencing)

Superfund Job Training Initiative

The United States Environmental Protection, Agency Headquarters funded the SRS-SuperJTI through the TASC Award. EPA Region 4 provided meeting support to the SRS-SuperJTI by funding contractor support under ROC.

The United States Department of Energy, supported the SRS-SuperJTI though assisting in the development and implementation of the program and overseeing the participation of DOE contractors.

SRS, the facility at which the SRS-SuperJTI was developed for and where the graduates would work.

E², Inc., a contractor to EPA Headquarters, established and implemented the SRS-SuperJTI model.

Parsons, a DOE contractor, provided support throughout the entire SRS-SuperJTI. Mock interviews were also conducted by Parsons during Phase 3 of the program.

TASC, Award is the contract under which the SRS-SuperJTI was funded. TASC was awarded to E² who served as the primary contractor.

SRR, a DOE contractor, committed to 42 full-time, permanent radiological control inspector and operators

Denmark Technical College, provided the facility for the technical portion of the program.

DSS Provided support to the initiative by educating and recruiting community partners and candidates from the Allendale County area.

OAI, Inc., a sub-contractor to E², provided the backbone to the program initiative and lessons learned from previous job trainings that were developed and implemented through their curriculum.

The Imani Group, served as the community partner and was sub-contracted by E².

SRNS, a DOE contractor, committed to 20 full-time, permanent material handler and operator positions.

Questions

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