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

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Overview

- Introduce EPA
- Origin of Superfund
- 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

- independent agency formed in 1970
- Congress writes environmental laws
- EPA writes regulations to implement laws
- EPA enforces regulations
- EPA sets national standards
United States Environmental Protection Agency (EPA)
Origins of Superfund

CERCLA: Comprehensive Environmental Response Compensation and Liability Act (Superfund)

Became law in 1980
Amended in 1986
Origins of Superfund

- “Reactive” law, addressing previously contaminated sites
- Established in response to disasters like Love Canal, NY and Valley of the Drums, KY
CERCLA

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”
- procedures for conducting CERCLA response actions
- establishes the risk level that triggers clean up action
Executive Order 12580 (1987):

- 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
Federal Facilities (DoE, DoD, etc.) are subject to CERCLA requirements similar to private entities
Department of Energy Facilities in EPA Region 4

- Savannah River Site – South Carolina
- Paducah Gaseous Diffusion Plant - Kentucky
- Oak Ridge Reservation – Tennessee
- Pinellas Plant – FL (RCRA FDEP lead)

April 2007 Paducah GDP

Oak Ridge K-25
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
- Oil Pollution Control Act
- Safe Drinking Water Act
- Clean Water Act
- Clean Air Act
Three party agreement (DOE, EPA, SCHEC)

- Governs investigation and remediation program
- Roles and responsibilities of each party
- Schedules and deadlines
- Enforceable milestones, penalties
- Procedures to working together
- Dispute resolution
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 remedial process via the Core Team and Scoping process
  - Collaborate sampling and monitoring plans
  - Conduct site visits and inspections, field oversight
  - Review data
  - Review documents
  - Comment on documents and resolving issues
  - Ensure adherence to NCP, EPA guidance
  - Participate in meetings, teleconferences, team work
  - Consider public input

- EPA RPM integral 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 signs the Record of Decision
- EPA signs the ROD
- SCDHEC signs the ROD
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 per the requirements of the NCP
Collaboration

- Team work approach employed to ensure meeting all FFA requirements while streamlining and accelerating process
  - Core Team
  - Scoping meetings
  - Design teams – special topics
- 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
- Integrator Operable 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
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
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 close 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.
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 through 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.

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.

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

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

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