



SITE MANAGEMENT PLAN PADUCAH GASEOUS DIFFUSION PLANT

Annual Revision-FY 05

Site Management Plan

- Required under Federal Facility Agreement (FFA)
- Outlines DOE's strategic approach for cleanup
- DOE is required to submit the SMP to US EPA and Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC) for review and approval by November 15 of each year
- Purpose of the SMP
 - Coordinate and document potential and selected operable units (OUs) including removal actions
 - Define cleanup priorities
 - Identify work activities serving as the basis for enforceable timetables and deadlines
 - Establish long-term cleanup goals

Strategic Cleanup Initiatives

- Groundwater OU Strategic Initiative
- Burial Grounds OU Strategic Initiative
- Surface Water OU Strategic Initiative
- Soils OU Strategic Initiative
- Decontamination and Decommissioning (D&D) OU Strategic Initiative

Strategic Cleanup Initiatives

- Primary objectives
 - Necessary actions to prevent on-site and off-site human exposure posing unacceptable risk
 - Ensure safe environmental conditions for industrial workers
 - Implement actions providing greatest opportunity for significant risk reduction prior to closure

Site Cleanup Strategy

- Source areas and affected media were first segregated into OUs
- Initial screening of OUs were further segregated into 3 areas:
 - Accelerated response action needed
 - Additional characterization/risk evaluation needed
 - Source areas associated with plant operations
- All SWMUs (currently 552) and areas of concern (AOCs) requiring investigation or response were assigned to an OU

Site Cleanup Strategy (cont.)

- Results of characterization activities will be used to support prioritization and decision making for future response actions
- Final CSOU evaluation will occur following completion of D&D
 - Future land use assumptions will be reassessed and modified as necessary
 - Scope will include baseline human health and ecological risk assessment to evaluate residual risks remaining
 - Will identify necessary additional actions to ensure long-term protectiveness

Site Cleanup Objectives

- Protect residential receptors from exposure to contaminated groundwater in areas off DOE property
- Protect recreational users from exposure to contaminated surface water, sediments, and biota areas outside the security fence

Site Cleanup Objectives (cont.)

- Protect industrial workers from exposure to waste and contaminated soils and sediments in areas inside the security fence
- Protect environmental receptors in areas outside the security fence

Risk Prioritization Criteria

- Mitigate immediate threats, both on- and off-site
- Reduce further migration of off-site contamination
- Address sources contributing to off-site contamination
- Address remaining sources contributing to on-site contamination

Risk Prioritization Criteria (cont.)

- Perform D&D of the currently operating GDP units impacted by plant operations
- Evaluate the final CSOU

Scope and Schedules

- This revision of the SMP updates the FY04 SMP (D2) version approved April 2004
- This revision of the SMP incorporates enforceable milestones for FY05, FY06 and FY07
- Enforceable completion dates for the five site-wide media OUs are also included

Proposed FY 2004 SMP Schedules

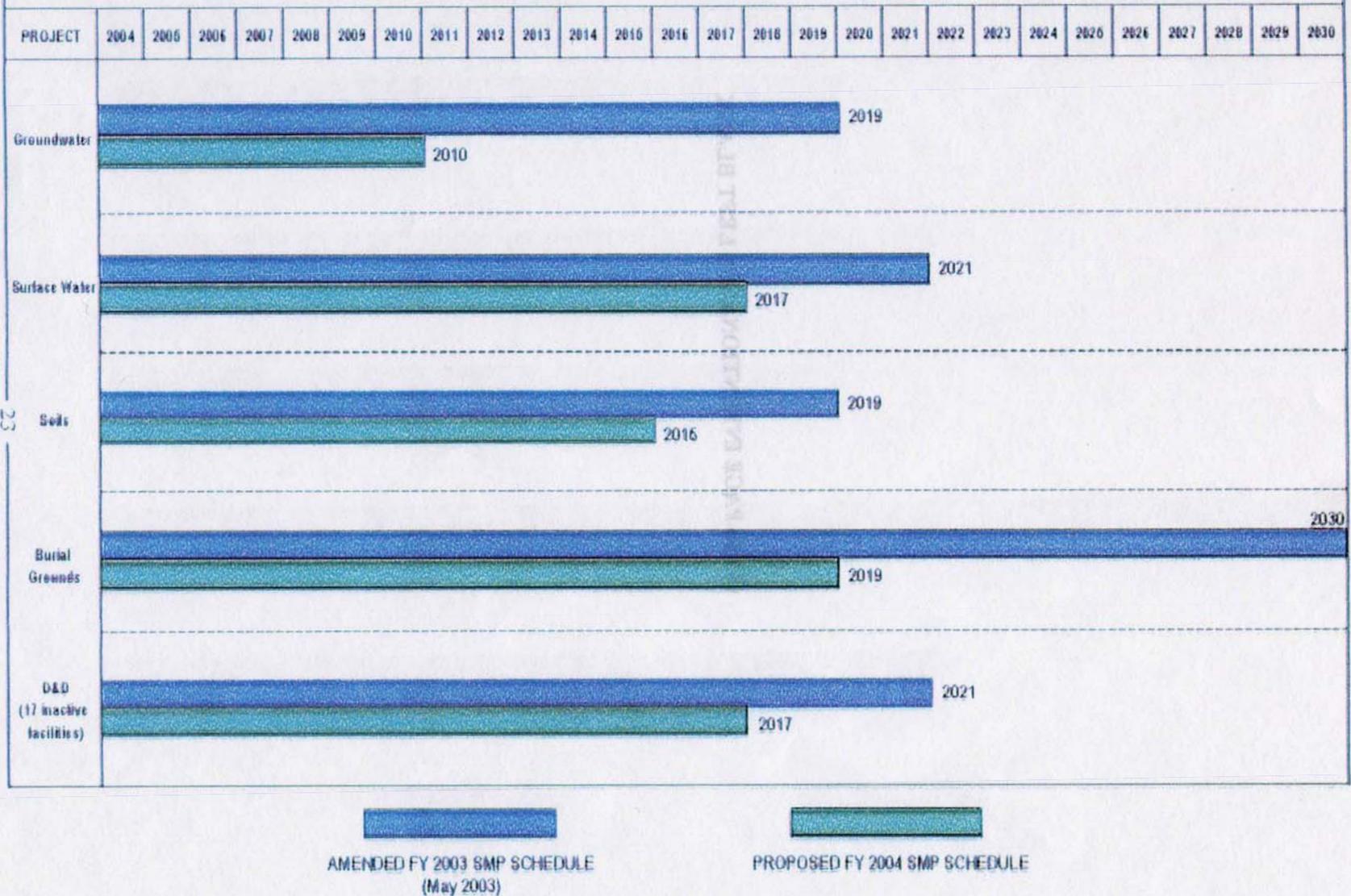


Fig. 6. Proposed FY 2004 SMP Schedule.

Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets

Subproject	Deliverable	Enforceable timetable and deadlines		Planning dates with long-term targets for decision documents ^{a,b}	Comments
		FY 2005 – FY 2007	Outyear		
Groundwater OU (Southwest Plume and Sources)	D1 Site Investigation/Risk Assessment Report ^c	1/3/05			
	D1 Proposed Plan	7/2/05			
	D1 ROD	1/3/06			
	D1 Remedial Action Completion Report		9/30/10		
Groundwater OU (C-400)	D1 Remedial Design Work Plan ^f	3/21/05			ROD signature expected in February 2005.
	D1 Remedial Action Work Plan ^g	1/13/06			
	D1 Remedial Design Report (90% Design) ^h	3/14/06			
	D1 Remedial Action Completion Report		9/30/10		
S- and T-Landfills	D1 Site Evaluation Report	9/30/05			
Decontamination and Decommissioning (17 Inactive Facilities)	D1 Action Memorandum (C-340 Facility)			3rd quarter – 2012	CERCLA decision documents completed and field work addressing infrastructure at C-410 initiated and ongoing.
	D1 Removal Action Completion Report (C-410, C-340, and 15 Inactive Facilities)		9/30/17		
Surface Water OU – North–South Diversion Ditch (Sections 1 and 2) ^d	D1 Remedial Action Completion Report	5/16/05			CERCLA decision documents completed and field work complete.
Surface Water OU (Scrap Metal)	CERCLA decision documents completed.				Fieldwork initiated and ongoing.
Surface Water OU (On-Site)	D1 Site Investigation/Risk Assessment Report ^{c,i}	4/27/06			
	Removal Notification ⁱ	6/23/06			
	D1 Action Memorandum ⁱ	4/12/07			
	D1 Removal Action Work Plan ⁱ	8/10/07			

Subproject	Deliverable	Enforceable timetable and deadlines		Planning dates with long-term targets for decision documents ^{a,b}	Comments
		FY 2005 – FY 2007	Outyear		
Surface Water OU (Off-Site)	D1 Decision Document ^c			3rd quarter – 2015	
	D1 Response Action Completion Report		9/30/17		
Site-Wide Soils OU Removal	D1 Decision Document ^c			4th quarter – 2011	Implementation of the Soils Removal Action will be timed to occur upon completion of RI Characterization under the Site-Wide Soils OU Remedial Project.
Site-Wide Soils OU Remedial	D1 ROD			3rd quarter – 2012	
	D1 Remedial Action Completion Report		9/30/15		
Burial Grounds OU ^e	D1 Remedial Investigation/Feasibility Study Work Plan	6/30/05			
	D1 ROD			2nd quarter – 2009	
	D1 Remedial Action Completion Report		9/30/19		

^a Not enforceable dates. Used for planning purposes only.

^b Long-term decision document target dates are intended to represent either D1 ROD and/or D1 Action Memorandum dates.

^c The sampling and analysis plans and the site investigation/risk assessment reports for the Groundwater OU (Southwest Plume and Sources) and Surface Water OU (On-Site) subprojects will be treated as primary documents for purposes of the Federal Facility Agreement review/approval/dispute procedures.

^d The phases listed for this project are as shown in the approved ROD. As described in the approved ROD, Phase I included construction of a surge basin and hard-piping, and Phase II includes the excavation of waste from Sections 1 and 2 of the North-South Diversion Ditch.

^e Note that investigation of SWMU 4 as a source of groundwater contamination is included in Groundwater OU (Southwest Plume and Sources).

^f Deliverable date is adjusted to reflect previously approved milestone extensions for the Proposed Plan and ROD reviews.

^g Remedial Action Work Plan deliverable date is modified to provide consistency with the associated remedial design.

^h The revised date reflects a more accurate schedule associated with developing remedial designs for an action of this magnitude.

ⁱ Dates are updated to reflect revised scope and forecasted schedule adjustments.

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act.

DMSA = DOE Material Storage Area.

FY = fiscal year.

OU = operable unit.

ROD = record of decision.

SWMU = solid waste management unit.



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