



U.S. DEPARTMENT OF
ENERGY



Federal Facility Agreement

Appendix E

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*SRS Citizens Advisory Board
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Purpose

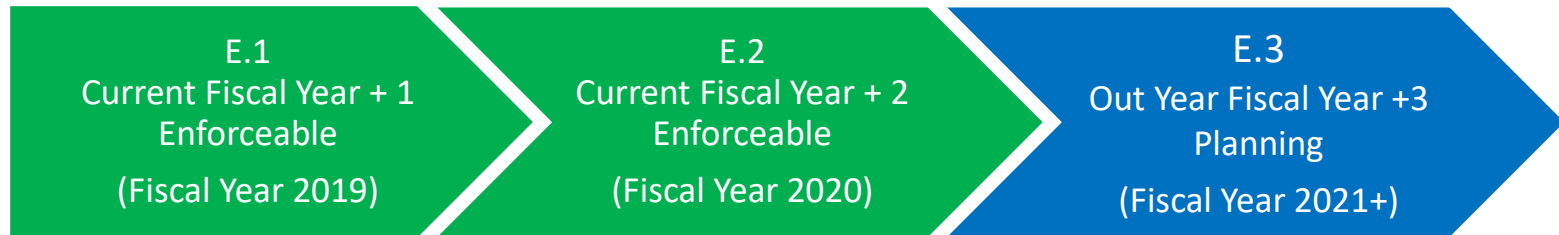
- **Provide information discussed in responses to Citizens Advisory Board Recommendation #279 Federal Facility Agreement Update Provided Annually**
 - Information briefing on the approved Revision 0 Fiscal Year 2018 Appendix E
- **Meet Citizens Advisory Board Facilities Disposition and Site Remediation Committee Annual Work Plan Commitment**

Federal Facility Agreement

- **Established August 1993**
 - A legally binding agreement among Department of Energy, Environmental Protection Agency – Region 4, and South Carolina Department of Health and Environmental Control
 - Includes administrative requirements, enforceable schedules, and milestones for actions and documents
 - Lists the Resource Conservation and Recovery Act/Comprehensive Environmental Response, Compensation and Liability Act “waste units” and other potential releases that must be addressed, and describes a process for any additional ones
 - Includes requirements for Removal from Service of some of the Savannah River Site Liquid Waste tanks
 - Spells out authorities and responsibilities of the three agencies, and procedures for resolving disputes

Federal Facility Agreement - Appendix E

- Provides a lifecycle list of cleanup milestones for Savannah River Site Waste Sites
 - Made up of Appendices E.1, E.2, and E.3
 - *Appendix E.1 contains Enforceable Milestones for the current Fiscal Year +1*
 - *Appendix E.2 contains Enforceable Milestones for current Fiscal Year +2*
 - *Appendix E.3 contains Planning Milestones for current Fiscal Year +3 and beyond*
- Department of Energy **updates Appendix E annually** and submits for approval to South Carolina Department of Health and Environmental Control and Environmental Protection Agency – Region 4 in November.



Federal Facility Agreement - Milestones

Documents

- **Remedial Investigation Work Plan**
 - Plan used as the basis to determine the extent of contamination
- **Remedial Investigation Report with Baseline Risk Assessment**
 - Report that determines the nature and extent of contamination and the associated health and environmental risks
- **Feasibility Study**
 - Report that develops and analyzes the range of cleanup alternatives for the unit
- **Proposed Plan**
 - Plan that identifies the cleanup alternative preferred by Department of Energy, South Carolina Department of Health and Environmental Control, and Environmental Protection Agency for the unit
 - *30 day public comment period for Comprehensive Environmental Response, Compensation and Liability Act units*
 - *45 day public comment period for Resource Conservation and Record Act/Comprehensive Environmental Response, Compensation and Liability Act units*

Federal Facility Agreement - Milestones (Continued)

Documents (Continued)

- **Record of Decision**
 - Official report that documents the selected remedy, after consideration of public comments; commits Department of Energy to implement it
- **Remedial Action Implementation Plan**
 - Plan that describes how the selected remedy will be implemented: design summary, permitting, construction & operation, maintenance, etc.
- **Land Use Control Implementation Plan**
 - Plan that describes how the land use controls selected in the Record of Decision will be implemented, maintained, monitored, enforced, and reported
- **Removal Site Evaluation Report/Engineering Evaluation/Cost Analysis**
 - Report that describes removal alternatives and objectives, and selects the preferred removal action alternative to address the potential threat to human health and/or the environment; 30-day public comment period

Federal Facility Agreement - Milestones (Continued)

Work Activities

- “Field Start” – beginning of remedial investigation (typically sampling or well construction) after approval of Remedial Investigation Work Plan
- “Remedial Action Start” – beginning of construction or site preparation activities after approval of Remedial Action Implementation Plan

For Liquid Waste Tanks

- “Complete Bulk Waste Removal Efforts” – completing efforts to removal bulk (most) of the waste (including salt cake, sludge solids, and contaminated liquids) from a tank, leaving only a residual heel
- “Complete Operational Closure” – isolated and filled with grout, in accordance with Industrial Wastewater Closure Module

Fiscal Year 2018 Appendix E - Major Changes

C-Area Groundwater

- A removal action has been proposed to reduce the trichloroethylene (TCE) moving into surface water so that the maximum contaminant level (MCL) of 5 micrograms per liter (µg/L) is no longer exceeded in the unnamed tributary to Castor Creek. The removal action will also support the final remedial action for C-Area Groundwater (i.e., remaining tritium and TCE plumes).
- The final action for the C-Area Groundwater will be delayed. The dates for the final action for the C-Area Groundwater were proposed and approved in the Revision 0 Fiscal Year 2018 Appendix E submittal as shown below.

Milestone or Deliverable	Previous Date	New Date
Revision 0 Focused Feasibility Study Submittal	May 1, 2018*	April 20, 2025
Revision 0 Proposed Plan Submittal	November 1, 2018	December 2, 2025
Revision 0 Record of Decision Submittal	June 17, 2019	July 19, 2026
Issue Record of Decision	March 12, 2020	April 8, 2027
Revision 0 Remedial Action Implementation Plan Submittal	April 24, 2020	August 9, 2027
Revision 0 Land Use Control Implementation Plan Submittal	April 24, 2020	August 9, 2027
Remedial Action Start	June 30, 2021	July 18, 2028

*This is a Fiscal Year 2018 milestone.

Fiscal Year 2018 Appendix E – Major Changes (Continued)

P-Area Groundwater

- A removal action has been proposed to address the chlorinated volatile organic compounds (e.g., TCE and tetrachloroethylene) that are discharging into Steel Creek above their respective MCL of 5 µg/L. The removal action will also support the final remedial action for P-Area Groundwater (i.e., tritium plume and related surface water exceedances).
- The final action for the P-Area Groundwater will be delayed. The dates for the final action for the P-Area Groundwater were proposed and approved in the Revision 0 Fiscal Year 2018 Appendix E submittal as shown below.

Milestone or Deliverable	Previous Date	New Date
Revision 0 Proposed Plan Submittal	November 12, 2018	December 27, 2029
Revision 0 Record of Decision Submittal	July 8, 2019	August 24, 2030
Issue Record of Decision	March 30, 2020	May 7, 2031
Revision 0 Remedial Action Implementation Plan Submittal	September 8, 2020	October 26, 2031
Revision 0 Land Use Control Implementation Plan Submittal	September 8, 2020	October 26, 2031
Remedial Action Start	June 7, 2021	July 4, 2032

Fiscal Year 2018 Appendix E – Major Changes (Continued)

D-Area Groundwater Operable Unit Removal Actions

- Based on the agreements reached in the *Suspension Agreement Federal Facility (FFA) High-Level Waste (HLW) Tank Milestones*, dated November 2017, two removal actions are scheduled for the D-Area Groundwater Operable Unit as shown below.

Operable Unit	Submit Revision 0 RSER/EE/CA	Submit Final Action Memorandum	Removal Action Start
D-Area Groundwater Operable Unit	July 31, 2018	January 31, 2019	January 31, 2020
D-Area Coal Storage Area (484-17D) in Support of D-Area Groundwater Operable Unit	September 30, 2018	March 31, 2019	April 30, 2020

RSER/EE/CA – Removal Site Evaluation Report/Engineering Evaluation/Cost Analysis

Fiscal Year 2018 Appendix E – Milestone Timeline

CYs	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
IOUs	SRFS Fourth Phase II Field Start 9/27/2017 (actual)	UTR Fifth Phase II Field Start 3/2019 SC Sixth Phase II Field Start 7/2019	PB Fifth Phase II Field Start 8/2020	FMB Sixth Phase II Field Start 6/2021	SRFS Fifth Phase II Field Start 4/2022	UTR Sixth Phase II Field Start 1/2023 SC Seventh Phase II Field Start 5/2023	PB Sixth Phase II Field Start 1/2024	FMB Seventh Phase II Field Start 6/2025	SRFS Sixth Phase II Field Start 1/2026	UTR Seventh Phase II Field Start 1/2027 SC Eighth Phase II Field Start 5/2027	PB Seventh Phase II Field Start 6/2028
Lower Three Runs IOU			LTR Issue ROD 6/2020	LTR RA Start 9/2021	RA LTR RA Construction Phase II Start						
CAGW	AM Submittal 4/2018	RA Start 1/2019	RA Construction through 1/2020							Issue ROD 4/2027	RA Start 7/2028
PAGW	AM Submittal 3/2018	RA Start 4/2019	RA Construction through 1/2020								
DAOU 2nd EA		Issue ROD 7/2019	RA Start 5/2020	RA Construction through 1/2021							
GOSB		Issue ROD 9/2019	RA Start 9/2020	RA Construction through 1/2021							
DAGW REMOVAL ACTION	RSE/EE/CA 7/2018	AM Submittal 1/2019	RA Start 1/2020	RA Construction through 1/2021							
DACSA REMOVAL ACTION	RSE/EE/CA 9/2018	AM Submittal 3/2019	RA Start 4/2020	RA Construction through 1/2021							

Acronyms

AAP/CPRB – A-Area Ash Pile (788-A), A-Area Coal Pile Runoff Basin (788-3A), and Stormwater Outfall A-013

AM – Action Memorandum

CAGW – C-Area Groundwater

CF – Consolidated Incineration Facility

CS – Central Shops

DAGW – D-Area Groundwater

DACSA – D-Area Coal Storage Area (484-17D)

DAOU – D-Area Operable Unit

EA – Early Action

ECODs – Early Construction and Operational Disposal Site

FAOU – F-Area Operable Unit

FMB – Fourmile Branch

GOSB – G-Area Oil Seepage Basin

IOUs – Integrator Operable Unit

LTR – Lower Three Runs

PAGW – P-Area Groundwater

PB – Pen Branch

RA – Removal Action or Remedial Action

ROD – Record of Decision

SC – Steel Creek

SRFS – Savannah River and Floodplain Swamp

UTR – Upper Three Runs

WADB – Wetland Area at Dunbarton Bay

Date: 4/13/2018

Fiscal Year 2018 Appendix E – Milestone Timeline (Continued)

CYs	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
DAGW			Field Start 6/2020			Issue ROD 6/2023	RA Start 9/2024	Issue ROD 6/2023			
CS ECODs			Field Start 9/2020			Issue ROD 12/2023	RA Start 12/2024	Issue ROD 6/2023			
WADB						Issue ROD 6/2023	RA Start 9/2024	Issue ROD 6/2023			
AAP/ CPRB				Issue Interim ROD 11/2021	Interim RA Start 3/2023	Issue ROD 6/2023	RA Start 9/2024	Issue ROD 6/2023			
FAOU EA					Field Start 9/2022				Issue ROD 10/2026	RA Start 1/2028	Issue ROD 6/2023
L Area ECODs					Field Start 9/2022			Issue ROD 9/2025	RA Start 12/2026	Issue ROD 6/2023	
CIF EA							Issue ROD 9/2023	RA Start 9/2024	Issue ROD 6/2023		

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 AM – Action Memorandum
 CAGW – C-Area Groundwater
 CIF – Consolidated Incineration Facility
 CS – Central Shops
 DAGW – D-Area Groundwater

DACSA – D-Area Coal Storage Area (484-17D)
 DAOU – D-Area Operable Unit
 EA – Early Action
 ECODs – Early Construction and Operational Disposal Site
 FAOU – F-Area Operable Unit
 FMB – Fourmile Branch

GOSB – G-Area Oil Seepage Basin
 IOUs – Integrator Operable Unit
 LTR – Lower Three Runs
 PAGW – P-Area Groundwater
 PB – Pen Branch
 RA – Removal Action or Remedial Action

ROD – Record of Decision
 SC – Steel Creek
 SRFS – Savannah River and Floodplain Swamp
 UTR – Upper Three Runs
 WADB – Wetland Area at Dunbarton Bay

Date: 4/13/2018

Other Key Milestones – FY 2019 - 2020

- **Fifth Five Year Remedy Review Reports for:**
 - Operating Equipment (Issuance) 2/2019
- **Sixth Five Year Remedy Review Reports for:**
 - Native Soil Covers and/or Land Use Controls (Revision 0) 12/2018
 - Groundwater Remedies (Revision 0) 12/2019
 - Native Soil Covers and/or Land Use Controls (Issuance) 2/2020
- **D-Area Operable Unit**
 - Second Early Action Record of Decision (Revision 0) 10/2018
 - Second Early Action Record of Decision (Issuance) 7/2019
 - Second Early Action Land Use Control Implementation Plan (Revision 0) 7/2019
 - Early Action Remedial Action Start 5/2020
- **D-Area Groundwater Operable Unit**
 - Remedial Investigation Work Plan (Revision 0) 7/2019
 - Field Start 6/2020
- **G-Area Oil Seepage Basin (761-13G) Operable Unit**
 - Record of Decision (Revision 0) 1/2019
 - Record of Decision (Issuance) 9/2019
 - Remedial Action Implementation Plan (Revision 0) 9/2019
 - Land Use Control Implementation Plan (Revision 0) 9/2019
 - Remedial Action Start 9/2020
- **Lower Three Runs Integrator Operable Unit**
 - Proposed Plan (Revision 0)* 2/2019
 - Record of Decision (Revision 0) 10/2019
 - Record of Decision (Issuance) 6/2020
- **Liquid Waste Tanks**
 - Complete Bulk Waste Removal Efforts for One (1) Tank 9/2019
 - Complete Operational Closure of Two (2) Tanks 9/2019

(* will be available for public review & comment around 11/2019)

Upcoming Remedial/Removal Decisions Documents

- **C-Area Groundwater RSER/EE/CA**

- Availability of document for public comment announcement completed on March 13, 2018
- 30-day public comment period began on March 13, 2018 and ended on April 11, 2018
- No public comments were received during the public comment period.

- **P-Area Groundwater RSER/EE/CA**

- Availability of document for public comment announcement completed on April 10, 2018
- 30-day public comment period began on April 10, 2018 and ended on May 10, 2018

Summary

The Federal Facility Agreement and Supporting Documentation, including Federal Facility Annual Progress Report for Fiscal Year 2017, Land Use Control Assurance Plan, Savannah River Site Community Involvement Plan, etc. is available online at:

<http://www.srs.gov/general/programs/soil/ffa/ffa.html>

The Federal Facility Agreement for the Savannah River Site is available at:

<http://www.srs.gov/general/programs/soil/ffa/ffa.pdf>

Questions and Answers

