

# U. S. DEPARTMENT OF ENERGY



## SAVANNAH RIVER SITE

### Integrated Mission Completion Contract (IMCC) Ten-Year End State Strategic Task Order Plan, Revision 0

*SAVANNAH RIVER MISSION COMPLETION UNDER CONTRACT NO.  
89303322DEM000068*

Prepared by the  
US Department of Energy – Savannah River Operations Office (DOE-SR)

**Integrated Mission Completion Contract (IMCC)  
Ten-Year End State Strategic Task Order Plan,  
REVISION 0**

SIGNATURES

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# **Integrated Mission Completion Contract (IMCC) Ten-Year End State Strategic Task Order Plan, REVISION 0**

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## Acronyms and Abbreviations

ABD	Accelerated Basin De-inventory
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CO	Contracting Officer
CPAF	Cost-Plus-Award-Fee
CPFF	Cost-Plus-Fixed-Fee
CPIF	Cost-Plus-Incentive-Fee
CR	Cost-Reimbursement
DOE	Department of Energy
DSS	Decontaminated Salt Solution
DWPF	Defense Waste Processing Facility
EPA	Environmental Protection Agency
EM	Environmental Management
ETF	Effluent Treatment Facility
FFA	Federal Facility Agreement
FFP	Firm-Fixed-Price
FP	Fixed-Price
FY	Fiscal Year
GWSB	Glass Waste Storage Buildings
HLW	High Level Waste
IDIQ	Indefinite Delivery/Indefinite Quantity
iTOP	Integrated Task Order Process
IMCC	Integrated Mission Completion Contract
LW	Liquid Waste
NGS	Next Generation Solvent
PEMP	Performance Evaluation Management Plan
PWS	Performance Work Statement
RCRA	Resource Conservation Recovery Act
SCDHEC	South Carolina Department of Health and Environmental Control
SDF	Saltstone Disposal Facility
SDU	Saltstone Disposal Unit
SME	Slurry Mix Evaporator
SPF	Saltstone Production Facility
SR	Savannah River
SRMC	Savannah River Mission Completion, LLC
SRS	Savannah River Site
STP	Site Treatment Plan
SWPF	Salt Waste Processing Facility
TCCR	Tank Closure Cesium Removal
TF	F-Area and H-Area Tank Farms
TO	Task Order
WD	Waste Determination

## Introduction

This plan is focused on the Department of Energy (DOE), Savannah River Site (SRS) strategy approach for DOE-EM Risk and Liability Reduction involving the Liquid Waste Mission at the SRS across fiscal years (FY) 2022-2032 and potentially through FY 2037 (last TO ordering period). SRS currently stores over 35 million gallons of liquid radioactive waste (primarily from legacy production and operations) in aging underground tanks. The mission of the Liquid Waste (LW) Operations is to receive, store, treat, and dispose of radioactive liquid waste in underground storage tanks; remove, treat and disposition the low activity waste fraction as a Saltstone waste form in concrete Saltstone Disposal Units (SDUs); vitrify the higher activity waste at the Defense Waste Processing Facility (DWPF); store the vitrified waste in stainless steel canisters until permanent disposition; and complete operational closure of all underground storage tanks and ancillary equipment. The DOE-SR awarded the Integrated Mission Completion Contract (IMCC)(an EM End State Contract) to Savannah River Mission Completion, LLC, (SRMC) which is comprised of BWXT, Fluor, and Amentum. The contract was awarded on October 27<sup>th</sup>, 2021, to proactively progress the LW mission. The goal of the IMCC is to achieve significant risk and financial liability reduction that provides the optimal solution to the SRS accelerated completion and closure.

The DOE- SRS and SRMC have worked in close cooperation to propose seven (7) Base Period task orders (TOs) plus two (2) Option Period TOs, that will focus the execution of the IMCC Master Indefinite Delivery/Indefinite Quantity contract over the next ten to fifteen years shown in **Attachment A - SRMC 10-Year Task Order Schedule** and **Attachment B - SRMC 5-Year Option Period Task Order Schedule**. Following the Transition TO (TO1), the TOs beginning in FY 2022 are broken down as follows:

- Stipulated TOs (these are considered stipulated as these are contract requirements):
  - TO2 (120-day Implementation period as directed in the RFP);
  - TO3 (15-month LW Program as directed in the RFP and further negotiated between DOE and SRMC);
- Proposed TOs (this TO is considered proposed as it is fairly well defined):
  - TO4 will address SDUs 8 & 9;
  - TO5 will address SDUs 10-12
- Preliminary Proposed TOs (these are considered preliminary proposed TOs as DOE and the Contractor need to proactively manage these TOs as more is learned through modeling, bringing in continued improvements and solutions to accelerate and more efficiently complete cleanup work):
  - TO6 (Base Period) and TO8 (Option Period) addressing LW Operations which also includes project-focused sub-tasks for:
    - Failed Equipment Storage Vaults #3 & #4
    - Glass Waste Storage Building #2 Double Stack
    - Melter Storage Boxes #4 and #5
    - Melter 5 Construction
  - TO7 (Base Period) and TO9 (Option Period) with subtasks attentive to Waste Retrieval and Tank Closure which include:
    - Bulk Waste Removal mods
    - Heel Removal
    - Cooling Coil Flushing mods
    - Annulus Cleaning mods
    - Isolation, Stabilization, and Grouting the remaining Waste Tanks

Other Factors to consider in the development of preliminary proposed TOs:

- The new LW Contractor, SRMC assumed full responsibility on February 27, 2022 and will utilize System Plan 22 (developed by the former LW Contractor, Savannah River Remediation) which will guide operational planning until SRMC develops System Plan 23, forecasted to be complete in December 2022. System Plan 22 was briefed to the Regulators as discussed under Section B to begin discussions for the negotiation of new LW milestones.
- The SRMC will submit a *Graded Approach for Implementation of Contract Requirements Plan* for DOE approval to streamline processes, apply a graded approach, and identify efficiencies and performance improvements.
- Implementation of SRMC's *LW Optimization Improvement Initiatives* to accelerate LW operations as informed by DBD Modeling.

These factors, to include partnering with the regulating agencies and other site contractors will continue to mature the preliminary proposed TOs for FY24 and beyond.

These TOs have been jointly derived between DOE and the Contractor and will go through the End State negotiation path as part of the IDIQ contract process. Proposed TO through FY23, will be more detailed than the preliminary proposed TOs for FY24 and beyond.

It should be noted that two basic types of TOs are envisioned at this time:

- LW Program and/or Operations – TOs focused on continuity and improvement of LW Operations to support DOE-EM Risk and Liability reduction by Curie disposition in the High-Level Waste Tanks.
- Project focused – TOs focused on specific projects moving towards completion or focused on completion of specific End States.

This plan is a living document to be updated annually to address emerging DOE priorities, changes in direction, results of additional modeling, or if any other significant changes occur that necessitate a revision.

## A. Background

The purpose of the IMCC is to achieve significant risk and financial liability reduction that provides the optimal solution to Site accelerated completion and closure. Ultimately, the tasks, including the End States associated with the tasks, to be performed during the Contract ordering period will be defined in the Task Orders discussed in this Strategy. The term "End State" is defined as the specified situation, including accomplishment of completion criteria, for an environmental cleanup activity at the end of the Task Order period of performance (POP). The primary goal of IMCC is to reach the end state of the SRS Liquid Waste Mission, as defined in the System Plan, within the 10-year ordering period + 5 year optional end state Task Order ordering period. The end state goal of the SRS Liquid Waste Mission includes Completion of SDU Construction and Closure of 51 of 51 HLW tanks as shown in **Attachment C - SRMC End State Flowchart – TO4 and TO5** and **Attachment D – TO6 and TO7 Task Order End-State Flowchart and Completions**. Additionally, IMCC will continue to implement optimizations and utilize DBD modeling to accelerate tank closures with the goal of achieving 22 of 51 Tanks closed in 10 years, as stated in DOE-EM's 10-Year Strategic Plan.

The LW facilities include the F-Area and H-Area Tank Farms (TF), Salt Waste Processing Facility (SWPF), Defense Waste Processing Facility (DWPF), Glass Waste Storage Buildings (GWSB), Saltstone Production Facility (SPF), Saltstone Disposal Units (SDU) and Effluent Treatment Facility (ETF).

The IMCC is an IDIQ End State completion contract with an estimated contract ceiling of approximately \$21 billion over a 10-year ordering period, with an option for award of End State TOs for up to an additional five (5) years. This cost estimate is based on the DOE-SR federal life-cycle baseline of the SRS IMCC scope over 15 years. This funding will be provided incrementally over the period of performance.

The planned funding profile per the Government FY is shown below. This funding is subject to Congressional and Departmental funding authorization.

	FY21	FY22	FY23	FY24	FY25	FY26	FY27
PBS 14-C Liquid Tank Waste	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
<b>Total</b>	<b>1,000,000</b>						

	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35
PBS 14-C Liquid Tank Waste	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	900,000	900,000
<b>Total</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>900,000</b>	<b>900,000</b>

*\*The dollar amounts are requested in (\$1000's). The provided funding profile represents the Government's estimated future funding. The assumed funding is not a guarantee of available funds. Actual funding may be greater or less than these estimated. Available funds depend on Congressional appropriations and priorities within DOE.*

The IMCC IDIQ Contract will have Cost-Reimbursement (CR) and/or Fixed Price (FP) TOs. CR TOs can include, but are not limited to, CR no fee, Cost-Plus-Incentive-Fee (CPIF), Cost-Plus-Award-Fee (CPAF), and Cost-Plus-Fixed-Fee (CPFF) TOs. FF TOs can include, but are not limited to, Firm-Fixed-Price (FFP) TOs. The preference is CPIF and FFP TOs. Please see Section B.5 of the IMCC for discussions on TO Fee/Profit Ceilings.

## **B. Regulatory Milestones, Life-Cycle Baseline, and Office of Environmental Management (EM) Goals and Priorities**

### **B. 1 Regulatory Milestones**

The IMCC work scope is subject to multiple Federal and state environmental regulations that require consultation and/or approval from DOE and other Federal and state agencies. Specifically, most of the EM's cleanup work within the LW Program at SRS is driven by regulatory compliance agreements. Two key agreements, the FFA and the Site Treatment Plan (STP), facilitate the accelerated cleanup of the site. The FFA is a tri-party agreement between the DOE, SCDHEC and EPA that governs the environmental remediation and LW disposition programs. It establishes the foundation for timely remediation under both the Resource Conservation Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The STP requires mixed (hazardous and radioactive) waste to be treated under the hazardous waste standards with an agreed-upon schedule. The STP is enforceable by a Consent Order signed by both DOE and SCHDEC.

Other key regulatory drivers that affect the IMCC TOs include:

- DOE M 435.1-1, *Radioactive Waste Management Manual*;

- Dispute Resolution Agreement for Alleged Violations of Class 3 Industrial Solid Waste Landfill Permit Facility, Facility ID #025500-1603, US DOE between DOE and SCDHEC;
- Operating permits issued by SCDHEC; and,
- Section 3116 of the Ronald W. Reagan National Defense Authorization Act for FY 2005 (NDAA Section 3116).

Some specifics of IMCC regulatory milestones include:

- The Consolidated General Closure Plan for F & H Area Tank Farms approved by SCHDEC on May 22, 2017, is to be utilized in the future closure actions for waste tanks and ancillary structures in both the F-Area and H-Area Tank Farms
- The *2019 Suspension Agreement on Federal Facility Agreement (FFA) High Level Waste (HLW) Tank Milestones*, signed April 2019, that suspended Appendix L, Items 6 – 8 (remaining Bulk Waste Removal Efforts milestones) and Items 12 – 15 (remaining Operational Closure of Old-Style Tanks milestones) and added new SRS milestones including the operational closure of F-Area Diversion Boxes (FDB)-5 and -6 by December 31, 2022.
- Based on delayed SWPF startup, the STP milestone stating “Upon the beginning of full operations, DWPF will maintain canister production sufficient to meet the commitment for the removal of the backlogged and currently generated waste inventory by 2028” cannot be met. Therefore, this commitment must be renegotiated with SCDHEC.
- DOE agreed to perform Supplemental Tank Closure activities:
  - Tank Closure Cesium Removal Unit 2 (note: a report is being prepared on technical/cost feasibility due to SCHDEC on May 1, 2022)
  - Deploy Next Generation Solvent (NGS) in SWPF within 28 months after initiating radioactive operations (note: Hot Operations commenced on January 18, 2021; therefore the commitment date is May 2023)
- Process 36.75 million gallons of salt waste beginning on October 31, 2016.

Revision 22 of the Liquid Waste System Plan was briefed to SCDHEC and EPA on December 14, 2021, meeting the commitment to start discussions for the negotiation of new LW milestones within 30 days of Notice to Proceed for the IMCC. The next revision to the System Plan, Revision 23, will be the first Plan that incorporates input by SRMC. The results of this planning process will inform future IMCC TOs and this Strategy will be briefed to the regulating agencies once completed and approved by DOE.

## **B. 2 Office of Environmental Management (EM) Goals and Priorities**

The DOE’s goal is to efficiently optimize the scope, cost, and schedule associated with performance of all work while ensuring quality, protecting the safety of the workers, environment, and the public, to reduce EM’s environmental liabilities.

The DOE EM stated priorities for CY 2022 are as follows:

- Priority #1: Achieve Significant Construction Milestones
- Priority #2: Execute Key Cleanup Projects
- Priority #3: Reduce the EM Footprint
- Priority #4: Award Contracts That Enable Accelerated Progress
- Priority #5: Drive Innovation and Sustainability and Improved Performance

EM has identified the following CY 2022 priorities specific to the IMCC for the SRS:

- Under Priority #1:
  - Complete all concrete placements for Saltstone Disposal Unit-9 at Savannah River

- Under Priority#2:
  - Treat 4 million gallons of tank waste at the Savannah River Site

These priorities are reviewed, and alignment is ensured in the development of IMCC TOs.

### **C. Task Order (TO) Discussion**

The IMCC will be focused on an accelerated pace of End States to achieve the maximum amount of Cleanup over the contract period. This will be delivered using a prioritized set of TO scopes that are focused, robust, and schedule driven. These TOs will be cohesive in nature and will provide maximum simplicity and flexibility to the Task Ordering process.

DOE will partner with the Contractor in their use of the integrated TO process (defined as iTOP), to continue to rapidly sequence work scopes to help provide a clear visual assessment of End State options and impacts and enable priorities. DOE will ensure a vigorous process for integrative management across the TOs. A quick reference of the stipulated, proposed (definitive) and preliminary proposed (require refinement) TOs are shown in the **SRS End State Task Order Contract Strategy Table** on the following page. These TOs have been aligned between DOE and the Contractor through partnering discussions in the development of a shared strategic vision in delivering LW Operations with optimized TO sequencing. DOE-SR and SRMC have established a plan for seven (7) Base Period TOs plus two (2) Option Period TOs that will drive the execution of this Master IDIQ contract as shown in **Attachment A - SRMC 10-Year Task Order Schedule** and **Attachment B - SRMC 5-Year Option Period Task Order Schedule**. Following the Transition TO (TO1), the next two TOs (TO2 and TO3 stipulated by the contract) are focused on maintaining continuity of operations and providing core programs that support reliable and safe delivery throughout the contract duration. Additionally, the goal of TO3 is to reduce the overall DOE-EM Risk and Liability by dispositioning Curies from the High-Level Waste Tanks. TO4 and TO5 are focused on separating the SDU Capital Line-Item Projects from the other Liquid Waste scopes. Both SDU Capital Line-Item Projects have DOE approved Critical Decision (CD) 2-3 and will be managed as TOs separate from the remaining LW scope until the projects are complete. The remaining two TOs for the Base Period and two TOs for the Option Period are End State focused and will drive the development of specific TOs aimed at LW management and disposition; facility management; and Waste Retrieval and Tank Closure scopes. The joint strategy for achieving each End State has been developed to include specific objectives for successful project execution and metrics for measuring and demonstrating progress against the overall goals of IMCC.

#### **Specific End-States during IMCC**

1. DOE-EM Risk and Liability reduction by Curie Disposition
2. Bulk Waste Removal and Grouting of HLW Tanks
3. SDU Construction

This Plan is a living document that will be managed and updated at least annually to address changes in DOE priorities, emerging imperatives, or changes to LW System Plan as informed by DBD Modeling. Following the **SRS End State Task Order Strategy Table**, a more detailed discussion of each TO is offered. Keep in mind, that the proposed preliminary TOs, with time in the process, additional modeling, continued strategic thinking, may be replaced with more definitive TOs. In addition, all TOs will be managed based on their contract type, with a concise process for performance measurement, and agreed upon End States.

<b>SRS End State Task Order Contract Strategy Table</b>						
<b>TO</b>	<b>Type</b>	<b>Title</b>	<b>Activity</b>	<b>Period of Performance</b>	<b>Contract Type</b>	<b>Cost</b>
<b>TO2</b>	Stipulated	Implementation Period Task Order	120-Day Period of LW Operations	120 Day (FY22)	CPFF	\$262.5M
<b>TO3</b>	Stipulated	15 Months – LW Program Operations	Uninterrupted LW Program Operations w/exception of SDUs	15 Months (FY22–FY23)	CPIF	\$970.0M
<b>TO4</b>	Proposed	SDUs 8 & 9 Capital Line-Item Project	Design, Procurement, Installation, Construction, Testing, and Turnover of SDUs 8 & 9	(FY22–FY24)	CPAF Model with available fee as approved in the CD-2/3 Baseline	\$71.4M
<b>TO5</b>	Proposed	SDUs 10-12 Capital Line-Item Project	Design, Procurement, Installation, Construction, Testing, and Turnover of SDUs 10-12	(FY22–FY30)	CPIF	\$420M
<b>TO6 – Base TO8 – Option</b>	Preliminary Proposed	LW Operations – DOE-EM Risk and Liability Reduction End-State TO	Operations of SRS-LW Facilities Including F and H Tank Farms, ETF, DWPF, Saltstone, and SWPF	FY24 to End of IDIQ Contract	CPIF and FFP	TBD; See C.5.d for Initial FFP Costs
<b>TO7 – Base TO9 – Option</b>	Preliminary Proposed	Waste Retrieval and Tank Closure	Waste Removal, Chemical Cleaning, and Tank Closure of Remaining SRS-LW Waste Tanks in F and H Tank Farm	FY24 to End of IDIQ Contract	CPAF and FFP	TBD; See C.6.d for Initial FFP Costs

**C.1 Stipulated – Task Order 2:  
Implementation Period**

<b>Stipulated – Task Order 2: Implementation Period</b>	
Scope	Contract Implementation
Period of Performance	February 27, 2022 – June 26, 2022
Rationale	Uninterrupted Continuity of Operations
Estimated Cost	\$262.5 Million
Contract Type	CPFF
Completion Definition	Continuity of Operations

The Implementation Period TO is not an End State TO. The Implementation period is a 120- day period that will provide continued, uninterrupted LW operations while allowing DOE-SR and SRMC to further define strategies and details for project execution.

**C.1.a Scope**

The 120-day period immediately following the estimated ninety (90) day transition period represents the contract Implementation Period. On day one (1) of the Implementation period, SRMC assumes full responsibility for performance of the Master IDIQ Performance Work Statement (PWS). During the Implementation period, SRMC will perform continued, uninterrupted LW Program operations. Additionally, SRMC will partner with DOE to develop, negotiate, and definitize subsequent End State TOs.

During the Implementation Period, project planning will be performed, risks will be identified and quantified, and scopes will be evaluated to confirm timing for future task orders. During the detailed planning process, the End State TO scope and contract types will be evaluated and refined. This includes evaluating opportunities for movement of additional work scope into End State TOs and incentive or fixed-price contract structures. During planning TO resource allocation will be defined for incorporation in future updates to this Ten-Year Strategy.

**C.1.b Period of Performance**

The Implementation TO will begin February 27, 2022 and end June 26, 2022.

**C.1.c Rationale**

This TO is stipulated in the IMCC IDIQ contract.

**C.1.d Estimated Cost**

The estimated cost of this TO is \$262.5 million. This cost represents the estimated/project costs for funding but does not include fee.

**C.1.e Contract Type**

The Implementation Period TO will be managed as a CPFF contract as stipulated in the IMCC IDIQ contract.

**C.1.f Completion Definition**

This TO will be completed June 26, 2022.

**C.2 Stipulated – Task Order 3: 15 Months – LW Program Operations**

<b>Stipulated – Task Order 3: 15 Months - LW Program Operations</b>	
<b>Scope</b>	15 Months – LW Program Operations
<b>Period of Performance</b>	June 27, 2022 – September 30, 2023
<b>Rationale</b>	Task Order 3 Draft RTP as stipulated in the SRMC Master IDIQ
<b>Estimated Cost</b>	\$970M
<b>Contract Type</b>	CPIF
<b>Completion Definition</b>	Pre-Determined Curies Dispositioned

The 15 months LW Program Operations TO3 is an End State TO. TO3 is a 15-Month TO (extended from the one-year draft TO as defined in the SRMC IDIQ contract) that will provide continued, uninterrupted Savannah River LW operations while allowing DOE-SR and SRMC to further define strategies and details for project execution. The goal of this TO is to reduce the overall DOE-EM Risk and Liability by dispositioning Curies from the SRS High Level Waste Tanks. SRMC has proposed a CPIF Model with the Completion Criteria and Target Cost based on predetermined number of Curies dispositioned from the SRS High Level Waste Tanks. The number of Curies dispositioned for TO3 will be negotiated as part of the TO3 Proposal and subsequent Contract definitization.

**C.2.a Scope**

During TO3, SRMC will maintain full responsibility for performance of the Master IDIQ PWS. During this 15-Month Period, SRMC will perform continued, uninterrupted LW Program operations except for the SDU Capital Line-Item Projects, which will be performed in parallel as part separate TOs.

The following scope will be performed to support achieving the target number of Curies dispositioned for the TO3 period of performance:

- a) Operate Tank Farms and Effluent Treatment Facility (ETF) to support Sludge and Salt Processing including:
  - Complete Sludge Batch 10, Qualification Report, and declare readiness for feed to DWPF.
  - Continue Sludge Batch 11 compilation and Low Temperature Aluminum Dissolution.
  - Continue salt batch preparation to support the SWPF salt waste processing rate.
  - Maintain liquid tank waste system operations to receive and process 300,000 gallons per year of H-Canyon waste.

- b) Continue and/or initiate Waste Removal for Salt Tanks (1, 2, 3, 9, 10, 25, 27, 28, 29, 31, 32, 41, 44, 45, 46, 47) and Sludge Tanks (14, 15, 26, 33, 34, 35, 36, 39) needed to supply feed to DWPF, TCCR and SWPF. Continue technology development efforts such as ECSMPs and ELVMJs.
- c) Perform heel removal in Tank 15, perform annulus cleaning design and modifications as required and initiate regulatory documentation process. Include technology development efforts to minimize the need for future heel sampling.
- d) Complete operational closure activities of F-Tank Farm, ancillary structures specifically Diversion Boxes 5 and 6 in F-Tank Farm to meet FFA milestone of complete operational closure by 12/30/2022.
- e) Continue regulatory documentation process and any needed closure activities for the 1F Evaporator and CTS system.
- f) Continue Tank 9 Tank Closure Cesium Removal (TCCR) operation.
- g) Operate Defense Waste Processing Facility (DWPF), the Saltstone Production Facility (SPF), and the Saltstone Disposal Facility (SDF) in a manner that supports the SWPF salt waste processing rate.
- h) Complete implementation of the glycolic acid flowsheet in the Defense Waste Processing Facility (DWPF).
- i) Continue to perform GWSB #1 canister double stacking activities and increase the number of available double stack canister spaces.
- j) Operate the Salt Waste Processing Facility in a manner that maximizes waste processing throughput.
- k) Implement the Next Generation Solvent (NGS) into SWPF when needed to support regulatory commitments and/or achieve processing objectives.
- l) Complete necessary DWPF, Saltstone, SWPF, and Tank Farm modifications and optimizations required to achieve maximum processing throughput.
- m) Continue H Tank Farm east hill utilities work.
- n) Continue activities to provide additional storage for failed melters in DWPF.
- o) Continue activities to determine a path forward for the treatment and disposition of Tank 48H waste.
- p) Submit to DOE LW System Plan Revision 23 by December 1, 2022.

#### **C.2.b Period of Performance**

TO3 will begin June 27, 2022, and end September 30, 2023.

#### **C.2.c Rationale**

This TO is stipulated in the IMCC IDIQ contract.

#### **C.2.d Estimated Cost**

The preliminary estimated cost of this TO is \$970 million. This cost represents the estimated/project costs for funding but does not include fee.

#### **C.2.e Contract Type**

TO3 will be managed as a CPIF with a completion criteria and Target Cost based on the number of Curies dispositioned from the SRS High Level Waste Tanks.

**C.2.f Completion Definition**

The completion definition for TO3 will be based on the predetermined number of Curies dispositioned from the SRS High Level Waste Tanks.

**C.3 Propose - Task Order 4: SDUs  
8 & 9 Capital Line-Item  
Project**

<b>Proposed – Task Order 4: SDUs 8 &amp; 9</b>	
<b>Scope</b>	<b>Design, Procurement, Fabrication, Installation, Construction, Testing, and Turnover of SDUs 8 &amp; 9</b>
<b>Period of Performance</b>	<b>June 27, 2022 – September 30, 2024</b>
<b>Rationale</b>	<b>Provide additional disposal capacity for Decontaminated Salt Solution (DSS) from the Salt Waste Processing Facility (SWPF)</b>
<b>Estimated Cost</b>	<b>\$71.4M</b>
<b>Contract Type</b>	<b>CPAF</b>
<b>Completion Definition</b>	<b>CD-4 Approval</b>

Task Order 4: SDUs 8 & 9 Capital Line-Item Project is an End State TO. It has a Congressionally approved CD-2/3 Baseline that will be adopted by SRMC. This scope will be managed as Capital Line-Item project under the requirements of DOE Order 413.3b.

**C.3.a Scope**

The Saltstone Disposal Unit 8 & 9 Project will provide additional disposal capacity for Decontaminated Salt Solution (DSS) from the SWPF in the form of Saltstone Grout. The project will provide two SDUs with a minimum capacity of no less than 30 million gallons (Mgal). The scope of the project includes Design, Procurement, Fabrication, Installation, Construction, Testing, and Turnover of SDUs 8 & 9.

The SDU 8&9 Project will contain the following key elements of scope:

1. Design (Conceptual, Site-Prep, Cell & Balance of Plant)
2. Site Prep Construction (Potentially proposed as TO5)
3. Mud Mat Installation
4. Geosynthetic Clay Layer and High-Density Polyethylene (HDPE) Liner Installation
5. Cell Construction
6. Interior Liner Installation
7. Balance of Plant Construction

8. Technical Requirements / Start-up

Additionally, Project Support and Construction Management will be provided to support each of the scope elements.

**C.3.b Period of Performance**

TO4 will begin June 27, 2022 and end September 30, 2024.

**C.3.c Rationale**

SDUs 8 & 9 are being constructed to provide additional disposal capacity for DSS from SWPF.

**C.3.d Estimated Cost**

Estimated costs for TO4 are \$71.4M which does not include Fee.

**C.3.e Contract Type**

TO4 will be managed as a CPAF Model with the available fee as approved in the CD-2/3 Baseline.

**C.3.f Completion Definition**

TO4 Completion Definition is CD-4 Approval.

**C.4 Preliminary Proposed - Task Order 5: SDUs 10-12 Capital Line-Item Project**

<b>Preliminary Proposed – Task Order 5: SDUs 10-12</b>	
<b>Scope</b>	<b>Design, Procurement, Fabrication, Installation, Construction, Testing, and Turnover of SDUs 10-12</b>
<b>Period of Performance</b>	<b>June 27, 2022 – July 8, 2030</b>
<b>Rationale</b>	<b>Provide additional disposal capacity for Decontaminated Salt Solution (DSS) from the Salt Waste Processing Facility (SWPF)</b>
<b>Estimated Cost</b>	<b>\$420M</b>
<b>Contract Type</b>	<b>CPIF</b>
<b>Completion Definition</b>	<b>CD-4 Approval</b>

TOs 5: SDUs 10-12 Capital Line-Item Project is an End State TO. It has a Congressionally approved CD-2/3 Baseline that will be adopted by SRMC. This scope will be managed as Capital Line-Item project under the requirements of DOE Order 413.3b.

#### **C.4.a Scope**

The Saltstone Disposal Unit 10-12 Project will provide additional disposal capacity for Decontaminated Salt Solution (DSS) from the Salt Waste Processing Facility (SWPF) in the form of Saltstone Grout. The project will provide two Saltstone Disposal Units (SDUs) with a minimum capacity of no less than 30 million gallons (Mgal). The scope of the project includes Design, Procurement, Fabrication, Installation, Construction, Testing, and Turnover of SDUs 10-12.

The SDU 10-12 Project will contain the following key elements of scope:

1. Design (Conceptual, Site-Prep, Cell & Balance of Plant)
2. Site Prep Construction
3. Mud Mat Installation
4. Geosynthetic Clay Layer and HDPE Liner Installation
5. Cell Construction
6. Interior Liner Installation
7. Balance of Plant Construction
8. Technical Requirements / Start-up

Additionally, Project Support and Construction Management will be provided to support each of the scope elements.

#### **C.4.b Period of Performance**

TO5 will begin June 27, 2022 and end July 8, 2030.

#### **C.4.c Rationale**

SDUs 10-12 are being constructed to provide additional disposal capacity for DSS from SWPF.

#### **C.4.d Estimated Cost**

Estimated cost for TO5 is \$420M which does not include Fee.

#### **C.4.e Contract Type**

TO5 will be managed as a CPIF Model.

#### **C.4.f Completion Definition**

TO5 Completion Definition is CD-4 Approval.

**C.5 Preliminary Proposed - Task Order 6 and 8: LW Operations – DOE-EM Risk and Liability Reduction End-State TO**

<b>Preliminary Proposed - Task Order 6 and 8: LW Operations – DOE-EM Risk and Liability Reduction End-State TO</b>	
<b>Scope</b>	Operations of SRS-LW Facilities including F and H Tank Farms, ETF, DWPF, Saltstone, and SWPF
<b>Period of Performance</b>	TO6: FY24 – End of IDIQ Base Contract TO8: IMCC Option Period
<b>Rationale</b>	Operation and Maintenance of the LW Facilities will be performed to support Curie reduction as the primary purpose of the IMCC Contract.
<b>Estimated Cost</b>	TBD – Will be addressed in TO proposal development; Initial FFP Cost Projections have been included in C.5.d
<b>Contract Type</b>	CPIF with FFP Subtasks
<b>Completion Definition</b>	Varies for each Subtask

The mission of LW Operations is to receive, store, treat, and dispose of radioactive liquid waste. The LW Operations are highly integrated involving safely storing liquid radioactive waste in underground storage tanks; removing, treating, and dispositioning the low activity waste fraction as a Saltstone waste form in concrete SDUs; vitrifying the higher activity waste at DWPF; storing the

vitrified waste in stainless steel canisters until permanent disposition; and completing operational closure of all underground storage tanks and ancillary equipment. LW Operations includes F and H Tank Farms, ETF, DWPF, Saltstone Facilities, and SWPF. TO6 will include all LW Operations activities and may be proposed as a CPIF Model with the Completion Criteria and Target Cost based on Risk and Liability Reduction via Curie disposition from the SRS High Level Waste Tanks. The number of Curies dispositioned for TO6 will be included as part of the TO6 Proposal and subsequent Contract definitization. The number of Curies dispositioned will then be assigned to yearly “Curie Reduction” deliverables, which can be re-negotiated on a year-by-year basis. Additionally, specific project-based subtasks in TO6 may be proposed as FFP. Scope acceleration or deceleration would be managed via SRMC’s Baseline Change Control Processes. If scope is added or removed from this TO, the Task Ordering Process (RTP and Proposal) will be required to execute the changes.

**C.5.a Scope**

Tank Farms and ETF:

SRMC will operate the Tank Farms to receive, concentrate, and store liquid radioactive wastes

in support of ongoing Site activities and ensure the continued operability and structural integrity of the liquid radioactive waste tanks and ancillary structures. SRMC will be responsible for effective Tank Space Management, Salt Feed Preparation, Sludge Feed Preparation, Bulk Waste Removal/Retrieval, and Management of the ETF.

#### DWPF

The Contractor shall operate the DWPF to optimize the processing of the sludge and high activity feed streams from salt processing into a vitrified waste form that meets or exceeds all requirements for interim storage at SRS and all requirements regarding the acceptability of the vitrified waste form for disposal in a licensed Federal Repository.

#### Saltstone Facilities

The Contractor shall operate and optimize the SPF to support processing of low activity liquid waste, including DSS, for disposal in the SDF. SRMC will operate and maintain SDF readiness to receive Saltstone grout except during a planned outage. Operations include filling the SDUs, maintaining the Saltstone grout and transfer lines operational, maintenance and repair/replacement of valves, and maintaining SDU capacity available for operations.

#### SWPF

SRMC will operate and maintain the SWPF to process the salt waste feed stream resulting from tank waste removal operations to produce:

1. Two high-activity waste feed streams for processing at the DWPF which meet all DWPF waste acceptance criteria.
2. A low-activity waste feed stream for processing at the SPF, which meets all SPF waste acceptance criteria.

#### Additional Subtasks

Subtasks may be proposed within TO6 to support LW Operations. The subtasks being considered for Firm Fixed Price for this period of performance include, but are not limited to the following:

- Failed Equipment Storage Vaults #3 & #4
- Glass Waste Storage Building #2 Double Stack
- Melter Storage Boxes #4 and #5
- Melter 5 Construction

### **C.5.b Period of Performance**

The expected period of performance for TO6 will be from FY24 to the end of the IMCC IDIQ Contract. If the IMCC Option period is exercised, this scope will be proposed as TO8.

### **C.5.c Rationale**

Operation and Maintenance of the LW Facilities will be performed to support Curie reduction as the primary purpose of the IMCC Contract.

### **C.5.d Estimated Cost**

Estimated costs for this TO will be determined as part of SRMC’s proposal and negotiated with DOE for TO6. Initial projections for Firm Fixed Price Scope for this Task Order include the following:

- Failed Equipment Storage Vaults 3&4 – **Approximate Projected Cost: \$15M**
- Glass Waste Storage Building #2 Double Stack – **Approximate Projected Cost: \$2M**
- Melter Storage Boxes #4 and #5 - **Approximate Projected Cost: \$40M**
- Melter 5 Construction - **Approximate Projected Cost: \$24M**

**C.5.e Contract Type**

TO6 may include a combination of CPIF and FFP. TO6 will primarily be managed as a CPIF with a completion criteria and Target Cost based on the number of Curies dispositioned from the SRS High Level Waste Tanks. The number of curies dispositioned will be yearly deliverables and negotiated on a year-by-year basis. Additionally, specific end-state subtasks may be proposed as FFP.

**C.5.f Completion Definition**

The completion definition for TO6 will be based on the predetermined number of Curies dispositioned from the SRS High Level Waste Tanks and completion of end-state subtasks proposed during the TO6 Period of Performance.

**C.6 Preliminary Proposed - Task Order 7 and 9: Waste Retrieval and Tank Closure**

<b>Preliminary Proposed - Task Order 7 and 9: Waste Retrieval and Tank Closure</b>	
<b>Scope</b>	Waste Removal, Chemical Cleaning, and Tank Closure of remaining SRS-LW Waste Tanks in F and H Tank Farm
<b>Period of Performance</b>	TO7: FY24 – End of IDIQ Base Contract TO9: IMCC Option Period
<b>Rationale</b>	Waste Retrieval and Tank Closure scope supports the overall goal of the IMCC
<b>Estimated Cost</b>	TBD – Will be addressed in TO proposal development; Initial FFP Cost Projections have been included in C.6.d
<b>Contract Type</b>	CPAF with FFP Subtasks
<b>Completion Definition</b>	Varies for each Subtask

**C.6.a Scope**

This TO includes scope associated with closure of tanks meeting the requirements of the Waste Determination (WD) Basis documents for the F and H Tank Farms. The closure life cycle of tanks is defined in the following three phases: Waste Removal, Chemical Cleaning, and Tank

Closure. This scope includes the procurement of common equipment used for multiple tanks and the development of the WD Basis documents for F and H Tank Farms. The following Subtasks are required for the closure of any given Tank in the F and H Tank Farms; however, some of the Subtasks are at various stages of completion:

1. Bulk Waste Removal Modifications
2. Heel Removal
3. Cooling Coil Flushing Modifications
4. Annulus Cleaning Modifications
5. Isolation and Residual Sampling – Potentially Proposed as FFP
6. Tank Stabilization (Grouting) – Potentially Proposed as FFP

TO7 scope also includes operational closure of ancillary structures as listed in the Consolidated General Closure Plan for F-Area & H-Area Waste Tank Systems.

Scope acceleration or deceleration would be managed via SRMC's Baseline Change Control Processes. If scope is added or removed from this TO, the Task Ordering Process (RTP and Proposal) will be required to execute the changes.

#### **C.6.b Period of Performance**

The expected period of performance for TO6 will be from FY24 to the end of the IMCC IDIQ Contract. If IMCC Option period is exercise, this scope will be proposed as TO9.

#### **C.6.c Rationale**

Waste Retrieval and Tank Closure scope supports the overall goal of the IMCC Mission.

#### **C.6.d Estimated Cost**

Estimated costs for this TO will be determined as part of SRMC's proposal and negotiated with DOE for TO7. The FFP Scope for this Task Order includes Isolation, Residual Sampling, and Grouting of Tanks which is estimated at approximately **\$7M** for each tank.

#### **C.6.e Contract Type**

TO7 may include a combination of CPAF and FFP. TO7 will primarily be managed as a CPAF with specific end-state subtasks that may be proposed as FFP.

#### **C.6.f Completion Definition**

TO7 completion will be determined by the completion of WR&TC subtasks.

### **D. Partnering**

The DOE-SR and SRMC are entering into a formal partnering agreement to help support a common vision with supporting goals, objectives, and expectations of the IMCC End State Contract. Partnering discussions have been held in the development of this IMCC Ten-Year End State Strategy Task Order Plan. This Plan represents an agreement between both the DOE-SR and SRMC on a shared vision going forward to the accelerated completion of this work. Partnering will be consistent with the DOE-EM End State Contract Model (ESCM) Policy Directive and the Department of Defense Integrated Product and Process Development (IPPD) framework.

Both DOE-SR and SRMC understand the continued need to partner, mature this document, ensure the site continues to drive towards DOE's mission goals, efficiently optimize the scope, cost, and schedule associated with performance of all work while ensuring quality, protecting the safety of the workers, environment, and the public to reduce EM's environmental liabilities. Both also understand that partnering with the Regulators is imperative

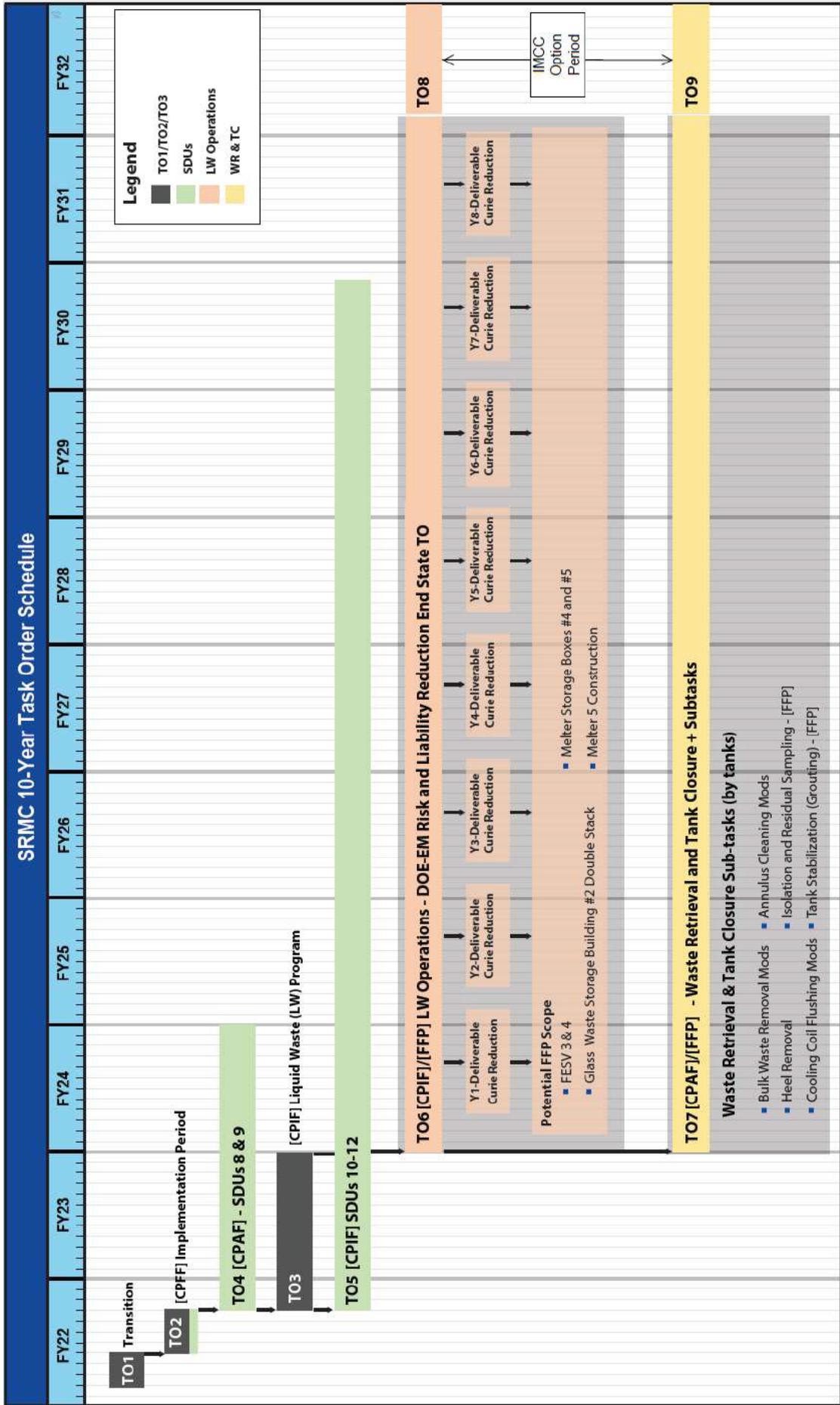
and will ensure early engagement on all End State TOs. The partnering approach with the Regulators will be collaborative, transparent, open, and honest with timely communications.

Both entities also understand the need to be pro-active, innovative, and continually improve processes to achieve End States in the most expeditious way possible.

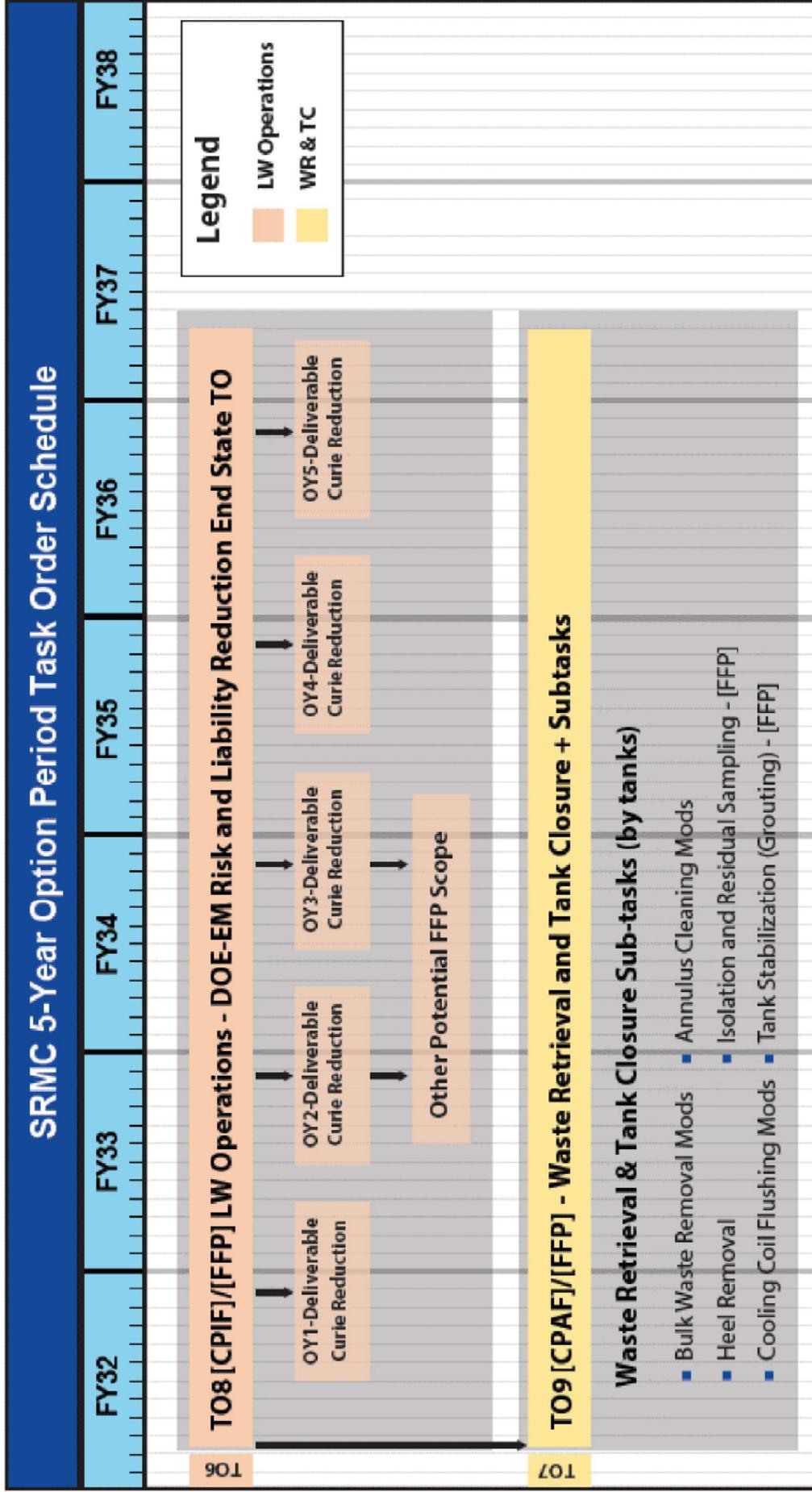
#### **E. Schedule**

The anticipated schedule for TO development and deployment is provided in the ***IMCC 10-Year End State Strategy Task Order Schedule*** on the following page.

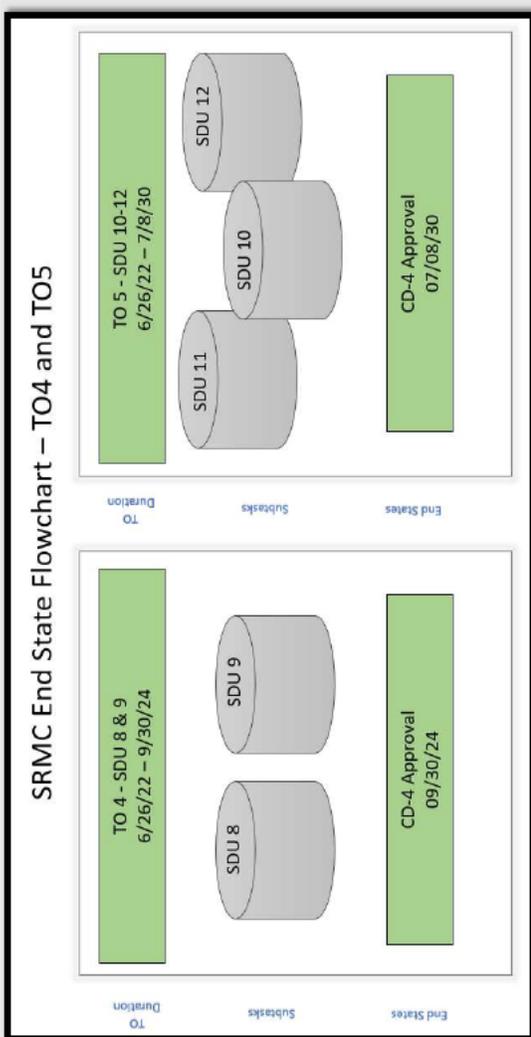
**Attachment A**



**Attachment B**



**Attachment C**



**Attachment D**

