

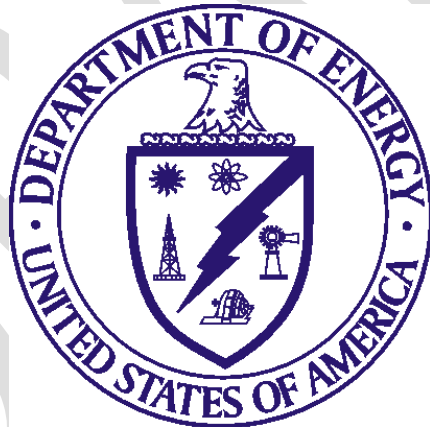
The purpose of this modification is to:

Oak Ridge **Reservation** Cleanup Contract 89303322DEM000067  
**Task Order** 89303523FEM400032

United Cleanup Oak Ridge LLC (UCOR)

Subtask No: 000351

*Subtask 5-1, **Modification 2**: ORNL Priorities - Phase I, Subtask 1:  
ORNL Operations and Cleanup End States*



U.S Department of Energy  
Oak Ridge Office of  
Environmental Management

**U.S Department of Energy  
Oak Ridge Office of Environmental Management  
Task Order**

1. Task Order Number: 89303523FEM400032	2. Task Order Revision Number: P45
3. Task Order Title: Oak Ridge Reservation Cleanup End States Task Order	
4. Date of Task Order – 05/10/2023	
5. Master IDIQ Contract Information:	
a. Contractor Name and Address: United Cleanup Oak Ridge LLC (UCOR) 20501 Seneca Meadows Pkwy, Ste 300 Germantown, MD 208767019	
b. Contract Number: 89303322DEM000067	
6. Description of Work: See attached subtasks	7. Accounting and Appropriation Data: See Clause B.4
8. Task Order Type, Cost, and Fee: Hybrid – See attached subtasks	9. Period of Performance: 05/10/2023-05/09/2033
See attached for all terms and conditions.	

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## **Section B – Supplies or Services and Prices/Costs**

This Subtask work shall be performed under Contract Line Item Number (CLIN)-00003 of the Oak Ridge Reservation Cleanup Contract (ORRCC) Master Indefinite Delivery/Indefinite Quantity (IDIQ) Contract (herein referred to as the Master IDIQ Contract). Section B of the Master IDIQ Contract and Task Order 89303322DEM000067/89303523FEM400032 is incorporated by reference.

### **B.1 DOE-B-2012 Supplies/Services Being Procured/Delivery Requirements (Oct 2014)**

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this Subtask as furnished by the Government) and otherwise do all things necessary for, or incidental to, the performance of work as described in Section C, Performance Work Statement under this Subtask.

### **B.2 Type of Subtask**

(c)DOE-B-2002 *Cost-Plus-Incentive-Fee Task Order: Total Estimated Cost and Incentive Fee* (Oct 2014) (Revised)

(1) This is a Cost-Plus-Incentive-Fee type Subtask. In accordance with the clause at FAR 52.216-10, *Incentive Fee*, the target cost, target fee, maximum and minimum fees, and the target fee increase and decrease ratios for this Subtask are:

See Appendix B.2 for additional details.

#### **Subtask 5-1: ORNL Operations and Cleanup End States**

Target Cost: **\$692,940,980**\* \*\*

\*Includes non-fee bearing costs of \$3,449,396 for government furnished property. The fee-bearing costs for the calculation of fee below is **\$689,491,584**.

\*\*A cost no fee true up based on an escalation variation of +/- 2% will be conducted on an annual fiscal year basis at the master contract level if determined necessary by either party.

Target Fee: **\$55,133,446**

Maximum Fee: **\$103,125,086**\*

Minimum Fee: \$0

\*Includes PMI of **\$20,684,748** available and managed at the contractual level.

i. Cost Incentive

See Appendix B.2

Actual fee earned will be prorated based on final cost at completion.

For the cost incentive portion of fee, as specified at Section I clause FAR 52.216-10, Incentive Fee, paragraph (e)(1): the fee payable under this subtask shall be the target fee increased by thirty (30) cents for every dollar the total allowable cost is less than the target cost or decreased by thirty (30) cents for every dollar the total allowable cost exceeds the target cost. In no event shall the fee be greater than (See Appendix B.2 for max amount) or less than \$0.

ii. Schedule Incentive

See Appendix B.2

See Appendix B.2

iii. Performance Incentive

See Appendix B.2

(2) The Target Cost, Target Fee, Minimum and Maximum fee, and Target Fee increase/decrease ratios are applicable to the following Subtask Contract Line Items:

CLIN/ SubCLIN	CLIN/SubCLIN Title	CLIN Type	Target Cost	Target Fee	Fee Increase/Decrease Ratio
00003	ORRCC End State Task Orders 89303322DEM000067/ 89303523FEM400032				
000351	Subtask 5-1, <b><u>Modification 2:</u></b> ORNL Operations and Cleanup End States	CPIF	<b><u>\$692,940,980*</u></b>	<b><u>\$55,133,446</u></b>	As described in Subtask 5-1, Section B.2(c)(1)

\* Includes non-fee bearing costs of \$3,449,396 for government furnished property. The fee-bearing costs for the calculation of fee is **\$689,491,584**.

*\*This Subtask is subject to reopening pending receipt of audit of UCOR currently in process by an auditing firm retained by DOE. Therefore, the parties agree that the Total Subtask Estimated Value is subject to adjustment based on the results of audit report and resolution of audit findings. Should there be no agreement between DOE and Contractor on the amount of the price adjustment, the Contracting Officer may make a unilateral determination and modify the Subtask accordingly. Failure of Contractor and DOE to agree with such change and the resulting Total Subtask Estimated Value shall be resolved in accordance with the Disputes Clause of the Contract.*

(3) Payment of fee shall be made in accordance with the clause 52.216-10, *Incentive Fee*, Clause I.228, *DEAR 970.5232-2, Payment and Advances (Dec 2000) – Alt I (Dec 2000), Alt II (Dec 2000) and Alt III (Dec 2000)(DEVIATION)* of the Master IDIQ Contract and is payable upon DOE's final determination.

- i. Cost incentive fee will be made in accordance with this clause, Section B.11, Provisional Payment of Fee (Oct 2013)(Revised) of the Master IDIQ Contract, and other applicable clauses of the Subtask.
- ii. Performance and schedule incentive fee under this subtask will be paid after completion criteria is validated by OREM.

## **B.9 Basis for Change**

In accordance with Clause B.9 *Basis for Change*, the identification of fee risk ownership for both the Government and the Contractor is set forth in Appendix B.9.

## **B.12 Performance Management Incentive**

In accordance with Clause B.12, *Performance Management Incentive*, of the Master IDIQ Contract, Performance Management Incentive is applicable to this Subtask.

## **Section C – Performance Work Statement**

### **C.1 Subtask Requirements**

The Contractor shall perform the requirements in accordance with the Master IDIQ Contract and Task Order 89303322DEM000067/89303523FEM400032 and the information included below:

#### **PERFORMANCE BASED STATEMENT OF WORK Subtask 5-1: ORNL Operations and Cleanup End States**

## 1.0 INTRODUCTION

### **MODIFICATION 2:**

**Increases the Target Cost, Target Fee, Maximum Fee, and PMI for additional requirements identified in Section C 3.0, Scope, and 8.0, Performance Objectives and Standards, as negotiated for settlement of UCOR-T5-002, Transuranic Waste Processing Center Industrial Controls System Replacement, dated March 05, 2024.**

This is an End States Subtask. Key desired outcomes for risk and environmental liability reduction include:

- Excess contaminated facilities de-inventoried of contaminants of concern that include Asbestos, Lead, Beryllium, and Radionuclides (Fe-55, Co-60, Ni-63, Cs-137, Sr-90, Eu-152, Eu-154).
- Contaminant Load Remediated from identified areas of Soil and Other Environmental Media
- Excess contaminated facilities demolished
- Acres of footprint reduction/acres remediated and available to the Office of Science as vital space for ongoing site missions
- Recognizable risk and cost reductions associated with completion of identified PWS end states established.

DOE and the ORRCC Contractor have partnered to reach agreement on the scope of work, completion objectives, and risk and mitigation ownership for the Subtask period of performance. The Contractor shall ensure this Subtask scope is integrated with other Subtasks, as necessary.

## 2.0 BACKGROUND

Since its inception in 1943, the U.S. Department of Energy (DOE) Oak Ridge Reservation (ORR)'s Oak Ridge National Laboratory (ORNL) site has supported a variety of DOE missions including weapons development and production, science and energy research, and isotope and nuclear fuel production.

ORNL, managed and operated by DOE's Office of Science, is the nation's largest multi-program science and energy laboratory. Environmental liabilities from past DOE Oak Ridge activities remain to be addressed. To reduce environmental safety and health risk, hundreds of excess contaminated facilities at ORNL must be demolished and sites with contaminated environmental media require remediation. ORNL excess facilities are contaminated with a variety of radioactive isotopes, including transuranics, as well as other chemicals. ORNL also includes DOE's Office of Environmental Management (EM)

operating facilities that support waste treatment and disposal and environmental compliance.

One of DOE's strategic goals is to clean up the nation's Manhattan Project and Cold War legacies in compliance with laws and regulations. To accomplish this goal, DOE must reduce its environmental liabilities through accelerated cleanup of high-risk areas, thereby reducing risk and financial liability and returning land for its projected future use. Accelerated cleanup (i.e., accomplishing cleanup faster and more efficiently than planned) is a cooperative undertaking that requires the Contractor and the Government to seek innovative approaches to achieve the end states.

The scope of this Subtask includes accelerated cleanup of the highest priority excess contaminated facilities and sites at ORNL while continuing critical ongoing waste treatment and disposal operations and preparing some operations for transition to warm standby and/or shutdown. DOE and the ORRCC Contractor have partnered to reach agreement on the scope of work, completion objectives, and risk and mitigation ownership for the Subtask.

### **3.0 SCOPE**

The Contractor shall perform the scope of work and requirements in accordance with the Section C PWS sections and subsections of the Master IDIQ Contract and Task Order 89303322DEM000067/89303523FEM400032 identified below:

- **C.3.1 ORNL Cleanup**
  - **C.3.1.1 3026 Hot Cells**
    - C.3.1.1.3 Demolition
  - **C.3.1.2 3038 Facility**
    - C.3.1.2.2 Preparation for Demolition
    - C.3.1.2.3 Demolition
  - **C.3.1.3 Bethel Valley Isotope Area Facilities**
    - C.3.1.3.3 Demolition
  - **C.3.1.5 OR Graphite Reactor Support Facilities**
    - C.3.1.5.3 Demolition
  - **C.3.1.7 Oak Ridge Research Reactor Facilities**
    - C.3.1.7.2 Preparation for Demolition
    - C.3.1.7.3 Demolition
  - **C.3.1.11 3517 and Support Facilities**
    - C.3.1.11.1 Characterization



- C.3.1.11.2 Preparation for Demolition
- C.3.1.11.3 Demolition
- **C.3.1.19 Experimental Gas-cooled Reactor Complex**
  - C.3.1.19.2 Preparation for Demolition
- **C.3.1.21 Molten Salt Reactor Experiment Complex**
  - C.3.1.21.1 Characterization
- **C.3.1.23 3544 Complex**
  - C.3.1.23.1 Characterization
  - C.3.1.23.2 Preparation for Demolition
  - C.3.1.23.3 Demolition
- **C.5.1 Liquid and Gaseous Waste Operations and Life Extension (ORNL)**
  - C.5.1.1 Liquid Gaseous Waste Operations
  - C.5.1.2 LGWO Life Extension Initiative (select activities)
- **C.5.2 Transuranic and Solid Waste Debris Storage and Shipment Support**
  - C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance
  - C.5.2.2 TRU Shipment Support
- **C.5.3 ORNL Surveillance and Maintenance of EM Facilities and Sites and Environmental Monitoring**
  - C.5.3.1 ORNL Surveillance and Maintenance
  - C.5.3.2 ORNL Environmental Monitoring
  - C.5.3.3 MSRE Enhanced S&M
- **C.5.8 Legacy Waste Disposition**

For the scope of work performed under Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 PWS sections and subsections listed in the Scope, the Contractor shall incorporate the following assumptions and completion objectives into the Subtask:

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
C.3.1.1, 3026 <i>Hot Cells:</i>	<ul style="list-style-type: none"> <li>• Complete desired outcome described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032</li> </ul>	

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
	Section C.3.1.1. <ul style="list-style-type: none"> <li>DOE has determined the Fabric Membrane Structure shall be dismantled and disposed.</li> </ul>	
<i>C.3.1.2, 3038 Facility</i>	<ul style="list-style-type: none"> <li>Complete desired outcome described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.3.1.2.</li> <li>DOE has determined the slab and below-grade utilities and structures shall remain for a future remedial action.</li> </ul>	<ul style="list-style-type: none"> <li>Assume double-handling of process equipment/gloveboxes will be minimized by packaging as Waste Isolation Pilot Plant (WIPP)-compliant waste where feasible.</li> <li>Demolition is assumed to be open air.</li> </ul>
<i>C.3.1.3, Bethel Valley Isotope Area Facilities</i>	<ul style="list-style-type: none"> <li>Complete desired outcome described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.3.1.3.</li> <li>DOE has determined the 3099 pad shall remain for a future remedial action.</li> </ul>	<ul style="list-style-type: none"> <li>Demolition is assumed to be open air.</li> <li>Demolition of all facilities is assumed to end at the surface of the on-grade slab.</li> </ul>
<i>C.3.1.5, Graphite Reactor Support Facilities</i>	<ul style="list-style-type: none"> <li>Complete desired outcome described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.3.1.5.</li> <li>Demolition ends at the surface of the on-grade slab for 3003 and 3018.</li> </ul>	<ul style="list-style-type: none"> <li>Demolition is assumed to be open air.</li> <li>The 3002 slab, canal, and the segment of the concrete ventilation duct between 3002 and 3003 will be removed during demolition.</li> </ul>
<i>C.3.1.7, Oak Ridge Research Reactor Facilities</i>	<ul style="list-style-type: none"> <li>Complete desired outcome described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.3.1.7, including stabilization of</li> </ul>	<ul style="list-style-type: none"> <li>Demolition is assumed to be open air.</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
	<p>basement spring and pump system and/or implementation of a replacement for collecting contaminated groundwater, as required.</p> <ul style="list-style-type: none"> <li>• Demolition ends at the surface of the on-grade slab.</li> </ul>	
C.3.1.11, 3517 and Support Facilities	<ul style="list-style-type: none"> <li>• Complete desired outcome described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.3.1.11.*</li> <li>• Facility K4489 Cooling Tower has already been demolished and was not replaced.</li> <li>• All below-grade legacy wastes (e.g., in vaults in Tank Farm Cells 21 – 24) shall be removed.*</li> <li>• The underground storage tanks in Cells 21 through 24 shall be removed and may require temporary containment structure(s) to complete preparation for demolition.*</li> <li>• Demolition ends at the surface of the on-grade slab.</li> </ul> <p>*These end state completion criteria are not included in this subtask due to the work extending beyond the ten-year limitation on the task orders/subtask for Cells 21-24 and the current uncertainty for cask disposition. Cask disposition has the potential to be added to this subtask 1 after the investigations planned in FY24 &amp; FY25 are conducted. The end state has been modified from the master contract requirements for the 3517 scope solely because of the time limitations included in the contract for task orders/subtasks. The contract-defined end state will be completed in a subsequent task order/subtask.</p>	<ul style="list-style-type: none"> <li>• Demolition is assumed to be open air.</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
<i>C.3.1.19.2, Experimental Gas-cooled Reactor Complex Preparation for Demolition</i>	<ul style="list-style-type: none"> <li>Complete initial deactivation of the Complex, assuming the final stages of preparation for demolition, including CLSM placement will be resumed in approximately 7 years.</li> </ul>	
<i>C.3.1.21.1, Molten Salt Reactor Experiment Complex Characterization</i>	<ul style="list-style-type: none"> <li>Develop and Submit Remedial Investigation Report.</li> <li>Conduct, document, and obtain DOE and regulatory approval of Feasibility Study.</li> <li>Prepare and submit Proposed Plan, complete public comment period, and document response to comments.</li> <li>Complete and submit to the Regulators for approval of ROD amendment (or alternative CERCLA decision document) in accordance with the Proposed Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Assume Proposed Plan is approved before submittal of D1 ROD amendment (or alternative CERCLA decision document).</li> </ul>
<i>C.3.1.23, 3544 Complex</i>	<ul style="list-style-type: none"> <li>Complete desired outcome described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.3.1.23.</li> <li>Demolition ends at the surface of the on-grade slab.</li> <li>Containment walls and partition walls shall be demolished to grade. Examples of these walls are around the L-1 clarifier and zeolite columns, L-3 filters, and L-5 clear well.</li> <li>The 2600 tanker unloading station (see PWS C.5.1.2) shall be in place in time to meet the proposed demolition schedule for the tanker unloading station associated with Building 3544.</li> </ul>	<ul style="list-style-type: none"> <li>The 3518 neutralization basin structure and other subsurface structures will remain in place, but that pumps, mixers, walkways, handrails, and other ancillary steel will be removed and dispositioned.</li> <li>Demolition is assumed to be open air.</li> </ul>
<i>C.5.1.1, Liquid and Gaseous Waste Operations</i>	<ul style="list-style-type: none"> <li>Continue responsibility for operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032</li> </ul>	<ul style="list-style-type: none"> <li>Assume sludge mobilization and transfers from Tanks 2531 and 2537 to the</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
	<p>Section C.5.1.1 through September 30, 2027.</p> <ul style="list-style-type: none"> <li>• Complete sludge sampling of the MV storage tanks to obtain additional data regarding physical and chemical characteristics.</li> <li>• Prepare Melton Valley for EM LLLW receipt.</li> <li>• Support the sludge mobilization planning required to complete sludge retrieval and transfer operations to the MVSTs.</li> <li>• Provide Completion Strategy for BV LLLW System including a strategic plan to eliminate EM responsibilities for ORNL LGWO.</li> </ul>	<p>MVSTs will be completed by LGWO following completion of PWS C.3.1.46, BV Tank Upgrades.</p>
<i>C.5.1.2 LGWO Life Extension Initiatives</i>	<ul style="list-style-type: none"> <li>• Complete filter press replacement.</li> <li>• Complete 7961 and 2600 above-grade piping replacement.</li> <li>• Complete 3608 dike re-seal (after completion of 3608 above-grade piping replacement).</li> <li>• Complete Process Waste cathodic protection.</li> </ul>	
<i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i>	<ul style="list-style-type: none"> <li>• Continue operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.2.1 through completion of STP waste processing.</li> <li>• Perform receipts of newly generated TRU waste from the Office of Science to ORNL storage facilities.</li> <li>• Complete STP waste processing and obtain certification for disposition.</li> <li>• Continue waste processing of the following waste categories:               <ul style="list-style-type: none"> <li>– Already Processed STP Waste Needing Reprocessing (WIPP WAC: Enhanced AK)</li> <li>– Already Processed STP Waste Needing Reprocessing (non-WIPP WAC)</li> <li>– Pressurized Filter Housings</li> <li>– NW Solutions Secondary Boxes</li> </ul> </li> </ul>	

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
	<ul style="list-style-type: none"> <li>– WAI Secondary Boxes</li> <li>– In-process Secondary Waste</li> <li>– MLLW fallout from TRU (Onsite Macro)</li> <li>– RaB Source</li> </ul> <p>MODIFICATION 1:</p> <ul style="list-style-type: none"> <li>• As full settlement of REA UCOR-T5-001, <i>TWPC Utilities</i>: Pay utility costs required to support compliant operations of the Transuranic Waste Processing Center for the period 4/24/2024 through 11/19/2028. Coordinate with utility owners/suppliers to transition Transuranic Waste Processing Center utility charges from OREM to United Cleanup Oak Ridge LLC. Manage utility usage and cost records to include required OREM cost reporting as applicable. Administrate utility interfaces and payments.</li> </ul> <p><b><u>MODIFICATION 2:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>As full settlement of Proposal UCOR-T5-002, TWPC Industrial Control System Replacement: Complete replacement of the Programmable Logic Controllers (PLC), a portion of the whole ICS required to support compliant operations of the TWPC.</u></b></li> </ul>	<ul style="list-style-type: none"> <li>• Negotiated Target Cost for TWPC Utilities is based on historical rates. DOE will consider an adjustment to the Target Cost to align with adjusted rates billed by the ORNL Site Contractor after the adjusted rates are verified by DOE.</li> </ul>
C.5.2.2, TRU Shipment Support	<ul style="list-style-type: none"> <li>• Continue responsibility for all operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.2.2 through completion of STP waste processing.</li> <li>• Additional standard waste boxes shall be procured to support shipments of Minimum</li> </ul>	

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
	Detectable Activity drums and other waste streams, as required.	
<i>C.5.3.1, ORNL Surveillance and Maintenance</i>	<ul style="list-style-type: none"> <li>• Continue responsibility for operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.3.1 through September 30, 2027.</li> <li>• Include Security Patrol coverage for Reeves Road</li> <li>• Includes maintenance of Reeves Road with existing resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Transition of the Building 3019 and Building 2026 complexes will not occur during this subtask POP.</li> </ul>
<i>C.5.3.2, ORNL Environmental Monitoring</i>	<ul style="list-style-type: none"> <li>• Continue responsibility for operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.3.2.</li> </ul>	
<i>C.5.3.3, Molten Salt Reactor Experiment Complex Enhanced Surveillance and Maintenance</i>	<ul style="list-style-type: none"> <li>• Complete the Continuous Purge System Start-Up and operations to replace the Reactive Gas Removal System (RGRS).</li> <li>• Complete Readiness Assessment for startup of the Continuous Purge System and demonstrate successful operability.</li> <li>• Maintain the RGRS in warm standby for a minimum of 12-months following full start-up/operability of the Continuous Purge System and then decommission/transition to cold stand-by.</li> </ul>	
<i>C.5.8, Legacy Waste Disposition</i>	<ul style="list-style-type: none"> <li>• Complete disposition of the following Master IDIQ Attachment J-12 <i>Difficult to Disposition Waste</i> items:             <ul style="list-style-type: none"> <li>– Cesium Canister from K-1004-J (K25C2120086)*</li> <li>– The following 9 waste containers stored at ORNL7822K Pad:                 <ul style="list-style-type: none"> <li>▪ X10C9601285</li> <li>▪ X10C0010384</li> </ul> </li> </ul> </li> </ul>	



<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>		
<b>PWS Subsection</b>	<b>Completion Criteria</b>	<b>Assumptions</b>
	<ul style="list-style-type: none"> <li>▪ X10C9800357</li> <li>▪ X10C9601297</li> <li>▪ X10C9600857</li> <li>▪ X10CSLLN007648</li> <li>▪ X10C9800379</li> <li>▪ X10CSLLN008171</li> <li>▪ X10C9501078</li> </ul> <ul style="list-style-type: none"> <li>• Complete refinement of Chemical Oxidation and Stabilization processes to effectively treat all constituents of concern and obtain U.S. EPA approval of a Petition for Determination of Equivalent Treatment for the Dioxin Furan waste.</li> <li>• Complete characterization of sodium and lithium shields.</li> <li>• Transfer MSRE charcoal canister to Isotek for processing and disposal.</li> </ul> <p>*This end state completion criteria is not included in this subtask due to the unknown costs. Included in the subtask is to complete a request for proposal and evaluation of proposals for disposition of the Cesium Canister from K-1004-J (K25C2120086). The subtask will be modified to incorporate the end state when negotiated.</p>	



**4.0 APPLICABLE DIRECTIVES**

In addition to the Directives included in the Master IDIQ Contract, additional Directives are included in Attachment J-2-5 to this Subtask.

**5.0 INTERFACES**

In addition to the Interfaces included in the Master IDIQ Contract, additional Interfaces are included in Attachment J-3-5 to this Subtask.

**6.0 DELIVERABLES**

In addition to the Deliverables included in the Master IDIQ Contract, additional Deliverables are included in Attachment J-7-5 to this Subtask.

**7.0 GOVERNMENT-FURNISHED SERVICES AND INFORMATION**

In addition to the Government-Furnished Services and Information included in the Master IDIQ Contract, additional Government-Furnished Services are included in Attachment J-8-5 to this Subtask.

**8.0 PERFORMANCE OBJECTIVES AND STANDARDS**

In addition to the performance milestone completion criteria attachment, fee will be determined upon completion of the End State requirements in Section 3.0 and work scope/completion criteria as follows:

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
C.3.1.1, <i>3026 Hot Cells</i> :	<ul style="list-style-type: none"> <li>• Fabric Membrane Structure dismantled and disposed.</li> <li>• Completion of East Cell Bank downsizing.</li> <li>• Completion of all hot cell and ancillary waste shipments.</li> <li>• Decontamination and/or sealing any contamination areas on the 3026 slab.</li> <li>• Development and submittal of the D1 PCCR documenting completion of the 3026D Hot Cells project.</li> </ul>
C.3.1.2, <i>3038 Facility</i>	<ul style="list-style-type: none"> <li>• Issuance of Letter of Condemnation</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>• Structure demolished, waste hauling complete, demobilization complete, and regulatory docs approved.</li> <li>• Removal and packaging of all remaining lead, process piping/equipment, and ACM/hazardous waste.</li> <li>• Removal and packaging of the carousel and any remaining legacy materials therein as required to prepare for demolition.</li> <li>• Removal or decontamination of areas of elevated contamination to support open air demolition of the facility.</li> <li>• Plugging of all slab penetrations and drains.</li> <li>• Removal of temporary power.</li> <li>• Completion of all prep for demo waste shipments, excluding TRU items.</li> <li>• Removal and packaging of the east wing Hot Lab hot cell and pass through chamber.</li> <li>• Completion of structure downsizing for the 3038 facility.</li> <li>• Completion of all demolition debris and ancillary waste shipments.</li> <li>• Decontamination and/or sealing any contamination areas on slabs.</li> <li>• Site restoration and project demobilization.</li> <li>• Submittal of the D1 Phased Construction Completion Report to DOE.</li> </ul>
<i>C.3.1.3, Bethel Valley Isotope Area Facilities</i>	<ul style="list-style-type: none"> <li>• Structures demolished, waste hauling complete, demobilization complete, and regulatory docs approved.</li> <li>• Plugging of slab penetrations and floor drains</li> <li>• Removal of temporary power</li> <li>• Completion of structure downsizing for all facilities in the complex.</li> <li>• Completion of all demolition debris and ancillary waste shipments.</li> <li>• Decontamination and/or sealing any contamination areas on slabs.</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>• Site restoration and project demobilization</li> <li>• Submittal of the D1 Phased Construction Completion Report to DOE.</li> </ul>
<ul style="list-style-type: none"> <li>• C.3.1.5, <i>Graphite Reactor Support Facilities</i></li> </ul>	<ul style="list-style-type: none"> <li>• Issuance of Letter of Condemnation</li> <li>• Structure demolished, waste hauling complete, demobilization complete, and regulatory docs approved.</li> <li>• Completion of structure downsizing for 3002, the 3002 slab, 3003, and the ventilation duct between 3002 and 3003.</li> <li>• Completion of all demolition debris and ancillary waste shipments.</li> <li>• Completion of structure downsizing for the 3018 stack.</li> <li>• Completion of all demolition debris and ancillary waste shipments.</li> <li>• Decontamination and/or sealing any contamination areas on slabs.</li> <li>• Plugging of any ventilation ducts to avoid water infiltration until they can be addressed under a future remedial action.</li> <li>• Site restoration and project demobilization.</li> <li>• Submittal of the D1 Phased Construction Completion Report to DOE.</li> </ul>
<ul style="list-style-type: none"> <li>• C.3.1.7, <i>Oak Ridge Research Reactor Facilities</i></li> </ul>	<ul style="list-style-type: none"> <li>• Issuance of Letter of Condemnation</li> <li>• Structure demolished, waste hauling complete, demobilization complete, and regulatory docs approved.</li> <li>• Removal and packaging of all remaining lead, process piping/equipment, and ACM/hazardous waste.</li> <li>• Removal and packaging of reactor pool hot cells and glove boxes.</li> <li>• Decontamination or removal of reactor pool liner.</li> <li>• Decontamination and backfilling of the basement.</li> <li>• Plugging of all slab penetrations and drains and capping of sumps.</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>• Removal of temporary power.</li> <li>• Completion of all prep for demo waste shipments.</li> <li>• Development of a regulatory work plan (RDR/RAWP) and a Waste Handling Plan.</li> <li>• Design and implementation of a groundwater collection option to offset the removal of the 3042 sump.</li> <li>• Completion of structure downsizing for the 3042 facility.</li> <li>• Completion of all demolition debris and ancillary waste shipments.</li> <li>• Decontamination and/or sealing any contamination areas on slabs.</li> <li>• Site restoration and project demobilization.</li> <li>• Submittal of the D1 Phased Construction Completion Report to DOE.</li> </ul>
<i>C.3.1.11, 3517 and Support Facilities</i>	<ul style="list-style-type: none"> <li>• Issuance of Letter of Condemnation</li> <li>• Disposition of empty casks that meet disposal criteria</li> <li>• Structure demolished, waste hauling complete, demobilization complete, and regulatory docs approved.</li> <li>• Completion of facility characterization to support waste disposition, both for preparation for demolition and demolition.</li> <li>• Removal and packaging of all lead, process piping/equipment, and universal/ACM/hazardous waste.</li> <li>• Removal and packaging of all legacy materials in the hot cells, including the materials in the 10W storage well.</li> <li>• Removal and packaging of all filters from the 3517 ventilation structures (3547, 3548, &amp; 3623)</li> <li>• Removal or decontamination of areas of elevated contamination to support open air demolition of the facilities.</li> <li>• Plugging of all slab penetrations and drains.</li> <li>• Removal of temporary power.</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>• Completion of all prep for demo waste shipments.</li> <li>• Development of a regulatory work plan (RDR/RAWP) and a Waste Handling Plan.</li> <li>• Decontamination and backfilling of the pipe tunnel and any pits, wells, or subsurface structures as required to support demolition to slab.</li> <li>• Completion of structure downsizing for the 3517 Complex facilities.</li> <li>• Completion of all demolition debris and ancillary waste shipments.</li> <li>• Decontamination and/or sealing any contamination areas on slabs.</li> <li>• Site restoration and project demobilization.</li> <li>• Submittal of the D1 Phased Construction Completion Report to DOE.</li> </ul>
<i>C.3.1.19.2, Experimental Gas-cooled Reactor Complex Preparation for Demolition</i>	<ul style="list-style-type: none"> <li>• Deactivation complete.</li> <li>• Facility returned to Program Owner pending future D&amp;D.</li> </ul>
<i>C.3.1.21.1, Molten Salt Reactor Experiment Complex Characterization</i>	<ul style="list-style-type: none"> <li>• Remedial Investigation Report approved by Regulators.</li> <li>• Feasibility Study approved by Regulators.</li> <li>• Proposed Plan and public comment period complete, and response to comments documented.</li> <li>• ROD amendment (or alternative CERCLA decision document) submitted for approval to Regulators in accordance with the Proposed Plan.</li> </ul>
<i>C.3.1.23, 3544 Complex</i>	<ul style="list-style-type: none"> <li>• Issuance of Letter of Condemnation</li> <li>• Structure demolished, waste hauling complete, demobilization complete, and regulatory docs approved.</li> <li>• Development of a regulatory work plan (RDR/RAWP).</li> <li>• Removal and packaging of all process piping/equipment and universal/ACM/hazardous waste.</li> <li>• Removal and packaging of any remaining media that</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<p>cannot be disposed of with demolition debris.</p> <ul style="list-style-type: none"> <li>• Plugging of all slab penetrations and drains.</li> <li>• Removal of temporary power.</li> <li>• Completion of all prep for demo waste shipments.</li> <li>• Development of a Waste Handling Plan.</li> <li>• Decontamination and backfilling of the 3518 Process Water Neutralization Plant basement and Neutralization Basin.</li> <li>• Completion of structure downsizing for the 3544 Complex facilities.</li> <li>• Completion of all demolition debris and ancillary waste shipments.</li> <li>• Decontamination and/or sealing any contamination areas on slabs.</li> <li>• Site restoration and project demobilization.</li> <li>• Submittal of the D1 Phased Construction Completion Report to DOE.</li> </ul>
<p><i>C.5.1.1, Liquid and Gaseous Waste Operations</i></p>	<ul style="list-style-type: none"> <li>• Responsibility for operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.1.1 complete through September 30, 2027.</li> <li>• Sludge sampling of the MV storage tanks complete with additional data obtained regarding physical and chemical characteristics.</li> <li>• Melton Valley prepared for EM LLLW receipt.</li> <li>• Sludge mobilization planning performed to complete sludge retrieval and transfer operations to the MVSTs. *</li> <li>• Completion Strategy for BV LLLW System including a strategic plan to eliminate EM responsibilities for ORNL LGWO approved by DOE.</li> </ul> <p>* DOE did not indicate GFSI would be provided for this scope; however, UCOR made an unstated assumption that GFSI would be provided. Therefore, if a gap in planning is identified, a contract modification may be required.</p>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
<i>C.5.1.2 LGWO Life Extension Initiatives</i>	<ul style="list-style-type: none"> <li>• Installation and operability of new Filter Press at 3608, installation and operability of 3608 tanker unloading station, complete 3608 Dike reseal.</li> <li>• Completion of the following work required for the repair requirement of the LGWO 3608 Dike Repair and Reseal:             <ul style="list-style-type: none"> <li>– Preparation of existing sealant and preparation of dike surface.</li> <li>– Crack repairs of all cracks equal to or greater than 1/8”.</li> <li>– Restoration of construction joints.</li> <li>– Application of sealant to the containment area.</li> </ul> </li> <li>• Completion of the following work required for the LGWO 3608 Filter Press Replacement activities:             <ul style="list-style-type: none"> <li>– Completion of updated As-built drawings for filter press and associated equipment.</li> <li>– Removal of existing Filter Press and associated equipment.</li> <li>– Installation of new Filter Press and associated equipment including but not limited to: PLC with HMI screen inside and outside the filter press room , and piping.</li> <li>– Startup of new filter press and commissioning.</li> <li>– Disposition of waste.</li> </ul> </li> </ul>
<i>C.5.1.2 LGWO Life Extension Initiatives</i>	<ul style="list-style-type: none"> <li>• Installation and As Bult Drawings complete for all above grade piping runs at the 7961 PW storage facility.</li> <li>• Completion of the following work required for the repair requirement of the LGWO 7961 Above Ground Piping Replacement:             <ul style="list-style-type: none"> <li>– Completion of prework documentation for work control, waste management, and procurement for piping sections below.</li> <li>– Completion of As-Built drawings for piping sections below.</li> <li>– Shop fabrication and hydrostatic testing of 304L stainless steel piping and associated valves,</li> </ul> </li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<p>followed by installation, post maintenance testing, and winterization (heat tracing/insulation) of the following sections:</p> <ol style="list-style-type: none"> <li>1. 7961 Seal Water Line</li> <li>2. BV to MV Transfer Piping</li> <li>3. Caustic System</li> <li>4. Cold Metals to 3608 (J-2019A/B pump lines)</li> <li>5. Cold Metals Wetwell to Cold Metals Tank (J-2015 A/B Pump Lines)</li> <li>6. Cold Non-metals to 3608 (J-2020 A/B pump lines)</li> <li>7. Cold Non-metals Wetwell to Cold Non-metals Tank (J-2016 A/B pump)</li> <li>8. Cold Sump Transfer Piping</li> <li>9. Hot Discharge to BV (J-2018 A/B pump discharge lines)</li> <li>10. Hot Suction to BV (J-2018 A/B pump suction lines)</li> <li>11. Hot Sump Transfer Piping</li> <li>12. Hot Wetwell to Hot Tanks (J-2014 A/B/C pump lines)</li> <li>13. J-2017 Hot Jet Mixer</li> <li>14. J-2018 Hot Jet Mixer</li> <li>15. J-2019 Cold Metals Jet Mixer</li> <li>16. J-2020 Cold Non-Metals Jet Mixer</li> <li>17. J-2023 Intertank Transfer</li> <li>18. J-2024 Intertank Transfer</li> </ol>
C.5.1.2 <i>LGWO Life Extension Initiatives</i>	<ul style="list-style-type: none"> <li>• Installation and As-Built Drawings complete for all above grade piping at the 2600 PW storage facility.</li> <li>• Completion of the following work required for the repair requirement of the LGWO 2600 Above Ground Piping:             <ul style="list-style-type: none"> <li>– Completion of prework documentation for work control, waste management, and procurement of piping sections below.</li> <li>– Completion of As-Built drawings for piping sections below.</li> </ul> </li> </ul>



<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>– Shop fabrication and hydrostatic testing of 304L stainless steel piping and associated valves, followed by installation, post maintenance testing, and winterization (heat tracing/insulation) of the following sections:               <ol style="list-style-type: none"> <li>1. Bethel Valley (BV) to Melton Valley (MV) Discharge Piping</li> <li>2. F-2101 Jet Mixer Piping</li> <li>3. F-2102 Jet Mixer Piping</li> <li>4. F-2103 Jet Mixer Piping</li> <li>5. F-2101/2102 Influent Pump Station</li> <li>6. F-2103 Influent Pump Station</li> <li>7. F-2101 to F-2102 Intertank Transfer</li> <li>8. F-2101/2102 to F2103 Intertank Transfer</li> <li>9. F-2103 to F-2101/2102 Intertank Transfer</li> <li>10. J-2101A/B/C Discharge to 3608</li> <li>11. J-2101A/B/C Suction from F-2101/2102</li> <li>12. J-2101A/B/C Suction from F-2103</li> <li>13. Sump and SWSA 4 Influent Piping</li> <li>14. 3608 Filter Press Waste Water</li> </ol> </li> </ul>
<p><i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i></p>	<ul style="list-style-type: none"> <li>• Complete physical preparation of 59 m<sup>3</sup> of technically challenging and co-located CH-TRU debris as well as STP waste inventory growth, enabling the final characterization of the waste for disposal. For purposes of this milestone, completion will be measured as accomplished when verification, appropriate remediation, and appropriate repackaging have been completed to support initial characterization.</li> <li>• Complete physical preparation of remaining inventory of 16m<sup>3</sup> (<i>which includes 1.7m<sup>3</sup> oxides of the 6.4m<sup>3</sup> oxides total</i>) of technically challenging and co-located CH-TRU debris as well as STP waste inventory growth, enabling the final characterization of the waste for disposal. For purposes of this milestone, completion will be measured as accomplished when verification, appropriate</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<p>remediation, and appropriate repackaging have been completed to support initial characterization.</p> <ul style="list-style-type: none"> <li>• Accomplish final WIPP certification of all remaining CH-TRU debris waste inventory, as shown in Table 4.1 of the STP. (Date extended due to additional certification requirements under WIPP WAC, revision 8. TDEC recognizes that as of the WIPP WAC, revision 8, final WIPP certification is managed by the DOE Carlsbad Field Office.)</li> <li>• Complete physical preparation of the remaining inventory of 22m<sup>3</sup> of RH-TRU debris inventory, enabling the final characterization of the waste for disposal. For purposes of this milestone, completion will be measured as accomplished when verification, appropriate remediation, and appropriate repackaging have been completed to support initial characterization.</li> <li>• Accomplish final WIPP certification of all remaining RH-TRU debris waste inventory, as shown in Table 4.1 of the STP. (Date extended due to additional certification requirements under WIPP WAC, revision 8. TDEC recognizes that as of the WIPP WAC, revision 8, final WIPP certification is managed by the DOE Carlsbad Field Office.)</li> </ul>
<p><i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i></p>	<ul style="list-style-type: none"> <li>• Complete stabilization of 7m<sup>3</sup> of cellulosic waste, including:             <ul style="list-style-type: none"> <li>– Complete procedures, training, and setup for testing the cellulosic stabilization process.</li> <li>– Conduct demonstration and validation of successful cellulosic waste stabilization process.</li> <li>– Complete validation report and submit to CBFO.</li> <li>– Complete procedures, training, and setup necessary for implementing the cellulosic stabilization process.</li> <li>– Complete stabilization of all cellulosic waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of</li> </ul> </li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	containers and repackaging forms provided to CCP for certification.
<i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i>	<ul style="list-style-type: none"> <li>• Complete physical preparation of 6.4m<sup>3</sup> of oxide containing waste, including:               <ul style="list-style-type: none"> <li>– Complete processing of oxide containing waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of containers.</li> <li>– Complete processing of any waste generated as a result of this activity, including closeout of containers and repackaging forms provided to CCP for certification.</li> </ul> </li> </ul>
<i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i>	<ul style="list-style-type: none"> <li>• Complete physical preparation of 16m<sup>3</sup> of technically challenging and co-located CH TRU debris and inventory growth, including:               <ul style="list-style-type: none"> <li>– Complete processing of all waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of containers.</li> <li>– Complete processing of any waste generated as a result of this activity, including closeout of containers and repackaging forms provided to CCP for certification.</li> </ul> </li> </ul>
<i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i>	<ul style="list-style-type: none"> <li>• Complete physical preparation of 22m<sup>3</sup> of RH TRU debris inventory, including:               <ul style="list-style-type: none"> <li>– Complete processing of all waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of containers.</li> <li>– Complete processing of any waste generated as a result of this activity, including closeout of containers and repackaging forms provided to CCP for certification.</li> </ul> </li> </ul>
<i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i>	<ul style="list-style-type: none"> <li>• Complete the Documented Safety Analysis Revision/Technical Safety Requirements Revision 1 Implementation, including:               <ul style="list-style-type: none"> <li>– Complete DSA/TSR revision 1 and submit to OREM for approval.</li> <li>– Obtain OREM approval of DSA/TSR Revision 1.</li> </ul> </li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>– UCOR Request Startup Authorization</li> <li>– Receive DOE Startup Authorization</li> <li>– Declare Readiness and Complete DSA/TSR Implementation</li> </ul>
Modification 1 <i>C.5.2.1 Melton Valley Solid Waste Storage Facility Operations and Maintenance</i>	<ul style="list-style-type: none"> <li>• Pay utility costs required to support compliant operations of the Transuranic Waste Processing Center for the period 4/24/2024 through 11/19/2028.</li> <li>• Coordinate with utility owners/suppliers to transition Transuranic Waste Processing Center utility charges from OREM to United Cleanup Oak Ridge LLC.</li> <li>• Manage utility usage and cost records to include required OREM cost reporting as applicable. Administrate utility interfaces and payments.</li> </ul>
<b><u>Modification 2</u></b> <b><u>C.5.2.1, Melton Valley Solid Waste Storage Facility Operations and Maintenance</u></b>	<ul style="list-style-type: none"> <li>• <b><u>Complete fieldwork to replace TWPC ICS Programmable Logic Controllers (PLC), including:</u></b> <ul style="list-style-type: none"> <li>○ <b><u>Complete design requirements;</u></b></li> <li>○ <b><u>Complete submittals, Test Plan, and work control documents;</u></b></li> <li>○ <b><u>Procure and install equipment/materials to be replaced;</u></b></li> <li>○ <b><u>Complete testing of new field devices and associated components; and,</u></b></li> <li>○ <b><u>Complete new PLC training, turnover, and acceptance testing.</u></b></li> </ul> </li> </ul>
<i>C.5.2.2, TRU Shipment Support</i>	<ul style="list-style-type: none"> <li>• Responsibility for all operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.2.2 complete through STP waste processing.</li> <li>• Standard waste boxes procured to support shipments of Minimum Detectable Activity drums and other waste streams, as required.</li> </ul>
<i>C.5.3.1, ORNL Surveillance and Maintenance</i>	<ul style="list-style-type: none"> <li>• Responsibility for operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.3.1 complete through September 30, 2027.</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>• Security Patrol coverage and guard posts provided for Reeves Road.</li> <li>• Reeves Road maintained with existing resources.</li> </ul>
<i>C.5.3.2, ORNL Environmental Monitoring</i>	<ul style="list-style-type: none"> <li>• Responsibility for operational activities described in Master IDIQ and Task Order 89303322DEM000067/89303523FEM400032 Section C.5.3.2 complete through September 30, 2027.</li> </ul>
<i>C.5.3.3, Molten Salt Reactor Experiment Complex Enhanced Surveillance and Maintenance</i>	<ul style="list-style-type: none"> <li>• Continuous Purge System Start-Up and operations to replace the Reactive Gas Removal System (RGRS) complete.</li> <li>• Readiness Assessment for startup of the Continuous Purge System complete with demonstration of successful operability.</li> <li>• RGRS maintained in warm standby for a minimum of 12-months following full start-up/operability of the Continuous Purge System and then decommissioned/transitioned to cold stand-by.</li> </ul>
<i>C.5.8, Legacy Waste Disposition</i>	<ul style="list-style-type: none"> <li>• Disposition complete for the following Master IDIQ Attachment J-12 <i>Difficult to Disposition Waste</i> items:             <ul style="list-style-type: none"> <li>– Cesium Canister from K-1004-J (K25C2120086)</li> <li>– The following 9 waste containers stored at ORNL7822K Pad:                 <ul style="list-style-type: none"> <li>▪ X10C9601285</li> <li>▪ X10C0010384</li> <li>▪ X10C9800357</li> <li>▪ X10C9601297</li> <li>▪ X10C9600857</li> <li>▪ X10CSLLN007648</li> <li>▪ X10C9800379</li> <li>▪ X10CSLLN008171</li> <li>▪ X10C9501078</li> </ul> </li> </ul> </li> <li>• Refinement of Chemical Oxidation and Stabilization processes complete to effectively treat all constituents of concern.</li> <li>• U.S. EPA approval of a Petition for Determination of Equivalent Treatment for the Dioxin Furan waste obtained.</li> </ul>

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>End State Requirement</b>	<b>Work Scope/Completion Criteria</b>
	<ul style="list-style-type: none"> <li>• Characterization of sodium and lithium shields complete.</li> <li>• MSRE charcoal canister transferred to Isotek for processing and disposal.</li> </ul>

In addition, the performance requirements, made up of objectives and respective standards, for this Subtask will be used to determine quality of performance in CPARS evaluation and PMI, as applicable. The performance objectives and standards are as follows:

<b>Subtask 5-1: ORNL Operations and Cleanup End States</b>	
<b>Objectives</b>	<b>Standard</b>
Safety and Operational Performance	See ORRCC PMI Plan
Meeting Regulatory or Court Ordered Milestones	See ORRCC PMI Plan
Quality Assurance Performance per Section C and Section E Clause FAR 52.246-11, where Continuous Monitoring and Performance Improvement are Evident	See ORRCC PMI Plan
Maintaining the Operability of Facilities and Other Infrastructure throughout the Performance Period such that Degradation is Addressed to Prevent Mission Impact	See ORRCC PMI Plan
Management of the Contractor’s team, including teaming subcontractors to ensure efficient and effective partnering with the Government and all parties;	See ORRCC PMI Plan
Establishment, maintenance, and implementation of sound business systems to ensure efficient and effective business management performance in a complex IDIQ task order environment	See ORRCC PMI Plan
IDIQ management, including timely, good faith and fair dealings in conducting negotiations with DOE with the goal of a reasonable outcome, including equitable risk sharing, for all parties	See ORRCC PMI Plan

## Section D – Packaging and Marking

Section D of the Master IDIQ Contract is incorporated by reference.

## **Section E – Inspection and Acceptance**

In addition to the following requirements, Section E of the Master IDIQ Contract is incorporated by reference:

### **E.1 Inspection and Acceptance Delegation**

In accordance with Clause E.2, DOE-E-2001, Inspection and Acceptance, the Contracting Officer assigns inspection and acceptance of all items to the Contracting Officer's Representative; however, the Contracting Officer's Representative is not authorized to accept nonconforming items or services.

## **Section F – Deliveries or Performance**

Section F of the Master IDIQ Contract is incorporated by reference. The requisite clause information specific to this Subtask included below is consistent with the clause numbering structure established by the Master IDIQ Contract.

### **F.3 Period of Performance**

- (a) The overall Subtask Period of Performance (POP) is from November 27, 2023 through April 13, 2033. The Contractor is expected to accomplish all of the completion criteria as defined in Section C within and/or at the end of the Subtask period of performance (POP).
- (b) The Contractor shall not be paid for work performed or costs incurred prior to the Subtask effective date, unless specifically authorized by the Contracting Officer.

## **Section G – Contract Administration Data**

Section G of the Master IDIQ Contract is incorporated by reference in addition to the following:

### **G.1 Subtask Administration**

To promote timely and effective contract administration, correspondence delivered to the Government under this Subtask, shall reference the contract number, Task Order number, Subtask number, and subject matter, and shall be subject to the following procedures:

- (a) Technical correspondence. Technical correspondence shall be addressed to the COR for this Subtask, and a copy of any such correspondence shall be sent to the CO for this Subtask, with an informational copy to the Contract COR and Contract CO. As used herein, technical correspondence does not include correspondence where patent or rights in data issues are involved, nor technical correspondence that proposes or involves waivers, deviations, or modifications to the requirements, terms, or conditions of this Contract.
- (b) Information regarding correspondence addresses and contact information will be provided through official correspondence:
- (1) Subtask Contracting Officer
- (A) Name: Carol Jennings
- (B) Telephone number: 865-574-5563
- (C) Address:  
U.S. Department of Energy  
Oak Ridge Office of Environmental Management  
200 Administration Road  
Oak Ridge, TN 37830
- (D) Email address: Carol.Jennings@orem.doe.gov
- (2) Subtask Contracting Officer's Representative
- (A) Name: James Daffron
- (B) Telephone number: 865-241-9504
- (C) Address:  
U.S. Department of Energy  
Oak Ridge Office of Environmental Management  
200 Administration Road  
Oak Ridge, TN 37830
- (D) Email address: james.daffron@orem.doe.gov

## **Section H – Special Contract Requirements**

In addition to the following requirements, Section H of the Master IDIQ Contract is incorporated by reference:

None.

## **Section I – Contract Clauses**

In addition to the following requirements, Section I of the Master IDIQ Contract is incorporated by reference:

None.



## Section J – List of Documents, Exhibits, and Other Attachments

In addition to the following requirements, Section J of the Master IDIQ Contract is incorporated by reference:

### Attachment J-2 – Directives

In addition to the following requirements, Section J-2 of the Master IDIQ Contract is incorporated by reference:

None.

### Attachment J-3 – Interfaces

In addition to the following requirements, Section J-3 of the Master IDIQ Contract is incorporated by reference:

None.

### Attachment J-5 – Small Business Subcontracting Goals

The following goals for this Subtask are appended to the Master Small Business Subcontracting Plan:

**Table J-5-5a. Subtask Small Business Subcontracting Goals**

Category	Total to be Subcontracted (\$)	Minimum Small Business Goals as a percent of total subcontracted dollars
<b>Total Subcontracted</b>	\$222,008,759	
Total Small Business Subcontracts	\$99,903,942	45%
Veteran-Owned Small Business (VOSB)	\$6,660,263	3%
Service-Disabled Veteran-Owned Small Business (SDVOSB)	\$6,660,263	3%
Historically Underutilized Business Zone (HUBZone)	\$6,660,263	3%

Category	Total to be Subcontracted (\$)	Minimum Small Business Goals as a percent of total subcontracted dollars
Small Disadvantaged Business	\$11,100,438	5%
Women-owned Small Business	\$11,100,438	5%

In accordance with Clause H.52, Subcontracted Work, Government-Provided Costs for Reservation Management and Post-Retirement Benefits and Long-Term Disability and Pension Contribution, and costs for the site usage fees provided to other site contractors are included in the Subtask value, but not included in the cumulative Subtask value for subcontracting goals, are provided in Table J-5-5b.

**Table J-5-5b. Government-Provided Costs Not Included in Subcontracting Goals**

Reservation Management	Not applicable
Post-Retirement Benefits and Long-Term Disability and Pension Contribution	Not applicable
Site Usage Fees	Not applicable
Services Acquired under Parent Organization Support Plan	\$4,309,990

**Attachment J-7 – Deliverables**

Attachment J-7-5 includes the following additional deliverables for this Subtask:

**Attachment J-7-5, Subtask 5-1 Deliverables**

Attachment J-7-5, Subtask 5-1 Deliverables				
Number	Deliverable	Deliverable Due Date	DOE Action <sup>1</sup> Response	Reference
T5-1-001	Subtask Performance Measurement Baseline	Final Within 30 days of each Subtask issuance	Approve – 30 days	Section C.6.1.1, <i>Project Support Performance Requirements</i> Section H.51, <i>Task Ordering Procedure</i>

<b>Attachment J-7-5, Subtask 5-1 Deliverables</b>				
<b>Number</b>	<b>Deliverable</b>	<b>Deliverable Due Date</b>	<b>DOE Action<sup>1</sup> Response</b>	<b>Reference</b>
T5-1-002	Reserved			
T5-1-003	Subtask Metrics and Milestone Plan	Final within 30 days of each Subtask issuance	Approve – 30 days	Section C.6.1.1, <i>Project Support Performance Requirements</i> Section H.51, <i>Task Ordering Procedure</i>
T5-1-004	Subtask Waste Generation Forecast	Final within 30 days of each Subtask issuance	Approve – 30 days	Section C.6.1.1, <i>Project Support Performance Requirements</i> Section H.51, <i>Task Ordering Procedure</i>
T5-1-005	Submittal for EPA approval of petition for the Dioxin and Furan waste.	4/30/2025	Review	Section C.5.8, <i>Legacy Waste Disposition</i>
T5-1-006	ORNL-3042 Pre-Demo PCCR, D1 to DOE	1/14/2027	**	Section C.3.1.7 CERCLA and FFA
T5-1-007	ORNL - BV Interim ROD - 3001 Support Facilities D&D – PCCR, D1 to DOE	2/12/2026	**	Section C.3.1.5 CERCLA and FFA
T5-1-008	ORNL - BV Interim ROD - 3038 D&D – PCCR, D1 to DOE	2/15/2028	**	Section C.3.1.2 CERCLA and FFA

<b>Attachment J-7-5, Subtask 5-1 Deliverables</b>				
<b>Number</b>	<b>Deliverable</b>	<b>Deliverable Due Date</b>	<b>DOE Action<sup>1</sup> Response</b>	<b>Reference</b>
T5-1-009	ORNL - BV Interim ROD - 3042 D&D – PCCR, D1 to DOE	3/6/2028	**	Section C.3.1.7 CERCLA and FFA
T5-1-011	ORNL - BV Interim ROD - 3026-D Facility – PCCR, D1 to DOE	3/19/2025	**	Section C.3.1.1 CERCLA and FFA
T5-1-012	ORNL - BV Interim ROD- Isotope Facilities Demolition – PCCR, D1 to DOE	3/9/2026	**	Section C.3.1.3, <i>Bethel Valley Isotope Area Facilities</i> CERCLA and FFA
T5-1-014	ORNL - BV Interim ROD- EGCR Deactivation – PCCR, D1 to DOE	6/8/2028	**	Section C.3.1.19.2, <i>Experimental Gas-cooled Reactor Complex Preparation for Demolition</i> CERCLA and FFA
T5-1-015	ORNL - BV Interim ROD- 3544 D&D – PCCR, D1 to DOE	10/1/2026	**	Section C.3.1.23, <i>3544 Complex</i> CERCLA and FFA
T5-1-016	3042 D&D RAWP, D1 to DOE	5/12/2025	**	Section C.3.1.7, <i>Oak Ridge Research Reactor Facilities</i> CERCLA and FFA
T5-1-019	3517 D&D RAWP, D1 to DOE	5/29/2025	**	Section C.3.1.11, <i>3517 and Support Facilities</i> CERCLA and FFA
T5-1-031	3517 D&D PCCR, D1 to DOE	11/16/2032	**	Section C.3.1.11, <i>3517 and Support Facilities</i> CERCLA and FFA
T5-1-033	Reserved			

<b>Attachment J-7-5, Subtask 5-1 Deliverables</b>				
<b>Number</b>	<b>Deliverable</b>	<b>Deliverable Due Date</b>	<b>DOE Action<sup>1</sup> Response</b>	<b>Reference</b>
T5-1-043	Submit a final report to DOE to be submitted to TDEC describing the results of the treatment train refinement effort of the liquid-phase dioxin and furan waste	30 days in advance of STP milestone	DOE Acceptance required	Section C.5.8, <i>Legacy Waste Disposition</i> Section C.6.2.8, <i>Waste Management</i>
T5-1-046	MSRE RI, D1 to DOE	7/22/2024	**	Section C.3.1.21 CERCLA and FFA
T5-1-047	MSRE FS Addendum, D1 to DOE	5/8/2025	**	Section C.3.1.21 CERCLA and FFA
T5-1-048	MSRE ROD Amendment (or other decision document), D1 to DOE	1/25/2028	**	Section C.3.1.21 CERCLA and FFA
T5-1-049	Monthly Progress Report for TWPC	Monthly by the 12 <sup>th</sup> Government workday of the following month	Information	Section C.5.2.1 Section C.6.1.2
T5-1-050	Completion Strategy for BV LLLW System	1/31/2025	Approve – 30 days	Section C.5.1.2

<b>Attachment J-7-5, Subtask 5-1 Deliverables</b>																																																																																																			
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<p><sup>1</sup>The DOE action is defined as follows:</p> <ul style="list-style-type: none"> <li>Approve – The Contractor shall provide the deliverable to DOE for review and approval. DOE will review the deliverable and provide comments or approve as submitted. If necessary, the Contractor shall revise the document to incorporate mandatory DOE comments and resubmit for DOE approval. Once approved by DOE, the deliverable shall be placed under change control with changes requiring DOE approval. It is not intended that editorial changes or corrections that do not alter commitments would require new DOE approval.</li> <li>Review – The Contractor shall provide the deliverable to DOE for review. DOE will review the information and will provide comments, as necessary. If necessary, the Contractor shall revise the document to incorporate mandatory DOE comments.</li> <li>Information – The Contractor shall provide the deliverable for information purposes only. DOE will review the information and may provide comments. Such comments do not require resolution under the Contract.</li> </ul>																																																																																																			
<p><b>Acronyms:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">AM</td> <td style="width: 35%;">Action Memorandum</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 30%;"></td> </tr> <tr> <td>AU</td> <td>Assessment Unit</td> <td></td> <td></td> <td></td> </tr> <tr> <td>BV</td> <td>Bethel Valley</td> <td>PCCR</td> <td></td> <td>Phased Construction Completion Report</td> </tr> <tr> <td>CBV</td> <td>Central Bethel Valley</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CERCLA</td> <td>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</td> <td>PP</td> <td></td> <td>Proposed Plan</td> </tr> <tr> <td></td> <td></td> <td>RA</td> <td></td> <td>Remedial Action</td> </tr> <tr> <td>D&amp;D</td> <td>Demolition Preparation &amp; Demolition</td> <td>RAR</td> <td></td> <td>Remedial Action Report</td> </tr> <tr> <td>DBT</td> <td>Design Basis Threat</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DOE</td> <td>Department of Energy</td> <td>RAWP</td> <td></td> <td>Remedial Action Work Plan</td> </tr> <tr> <td>DSA</td> <td>Documented Safety Analysis</td> <td>RDR</td> <td></td> <td>Remedial Design Report</td> </tr> <tr> <td>EBV</td> <td>East Bethel Valley</td> <td>ROD</td> <td></td> <td>Record of Decision</td> </tr> <tr> <td></td> <td></td> <td>TBD</td> <td></td> <td>To be determined</td> </tr> <tr> <td>EU</td> <td>Exposure Unit</td> <td>TM</td> <td></td> <td>Technical Memorandum</td> </tr> <tr> <td>FFA</td> <td>Federal Facility Agreement</td> <td></td> <td></td> <td></td> </tr> <tr> <td>LLLW</td> <td>Liquid Low Level Waste</td> <td></td> <td></td> <td></td> </tr> <tr> <td>MOA</td> <td>Memorandum of Agreement</td> <td>TWPC</td> <td></td> <td>Transuranic Waste Processing Center</td> </tr> <tr> <td>MSRE</td> <td>Molten Salt Reactor Experiment</td> <td></td> <td></td> <td></td> </tr> <tr> <td>MV</td> <td>Melton Valley</td> <td></td> <td></td> <td></td> </tr> <tr> <td>OREM</td> <td>Oak Ridge Office of Environmental Management</td> <td></td> <td></td> <td></td> </tr> </table> <p><i>* Fully compliant regulatory submittals are due no less than 45 days in advance of FFA Appendix E milestone dates unless otherwise agreed to by DOE.</i></p> <p><i>** DOE and Regulatory Actions to follow the standard schedule protocol for primary and secondary documents established per the FFA.</i></p>					AM	Action Memorandum				AU	Assessment Unit				BV	Bethel Valley	PCCR		Phased Construction Completion Report	CBV	Central Bethel Valley				CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980	PP		Proposed Plan			RA		Remedial Action	D&D	Demolition Preparation & Demolition	RAR		Remedial Action Report	DBT	Design Basis Threat				DOE	Department of Energy	RAWP		Remedial Action Work Plan	DSA	Documented Safety Analysis	RDR		Remedial Design Report	EBV	East Bethel Valley	ROD		Record of Decision			TBD		To be determined	EU	Exposure Unit	TM		Technical Memorandum	FFA	Federal Facility Agreement				LLLW	Liquid Low Level Waste				MOA	Memorandum of Agreement	TWPC		Transuranic Waste Processing Center	MSRE	Molten Salt Reactor Experiment				MV	Melton Valley				OREM	Oak Ridge Office of Environmental Management			
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**Attachment J-8 - Government-Furnished Services and Information (GFS/I)**

Attachment J-8-5 includes the following additional GFS/I for this Subtask:

<b>Attachment J-8-5. Subtask 5-1, GFS/I</b>	
<b>GFS/I</b>	<b>REQUIREMENT</b>
TWPC Government Furnished Services and Information	<ul style="list-style-type: none"> <li>– Provide Waste Isolation Pilot Plant shipping casks (TRUPACT II, RH-72B)</li> <li>– Bear the cost of transportation to and disposal of wastes at WIPP</li> <li>– Provide electrical power and water to the TWPC at no cost to the contractor through April 23, 2024.</li> <li>– Development of Acceptable Knowledge Reports (AKR)</li> <li>– Sampling and Analysis Plans</li> <li>– Dose to Curie Models</li> <li>– 72B Canister Build Sheets from CCP</li> <li>– Classification, Public Release, and Export Control Reviews of AKR, as needed</li> <li>– TRU waste streams defense determinations</li> <li>– Enhanced AK documents</li> </ul>
National Historic Preservation approval to proceed with demolition.	<p>DOE will obtain approval from the State Historic Preservation Office by 3/6/2024 as required to proceed with the following PWS subsections included in the task order scope:</p> <ul style="list-style-type: none"> <li>– PWS C.3.1.2.3, 3038 Facility - Demolition</li> <li>– PWS C.3.1.3.3, BV Isotope Area Facilities - Demolition</li> <li>– C.3.1.5.3, OGR Support Facilities - Demolition</li> <li>– C.3.1.7.3, Oak Ridge Research Reactor Facility - Demolition</li> <li>– C.3.1.11.3, 3517 and Support Facilities – Demolition</li> </ul>

**Appendix B.2**

**Appendix B.2, Subtask 5-1 Fee Model**

Fee Model									
Target Cost (Direct)	\$692,940,980								
Task Order Non-fee Bearing Cost	\$3,449,396								
Task Order Fee Bearing Target Cost	\$689,491,584								
	<b>Fee Calculations</b>								
	<table border="1"> <thead> <tr> <th>Percentages</th> <th>Amounts</th> </tr> </thead> <tbody> <tr> <td>Min Fee</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Target Fee</td> <td style="text-align: right; color: red;">\$55,133,446</td> </tr> <tr> <td>Max Fee</td> <td style="text-align: right; color: red;">\$103,125,086</td> </tr> </tbody> </table>	Percentages	Amounts	Min Fee	\$0	Target Fee	\$55,133,446	Max Fee	\$103,125,086
Percentages	Amounts								
Min Fee	\$0								
Target Fee	\$55,133,446								
Max Fee	\$103,125,086								

i. Cost Incentive			
Cost incentive portion of C,S,P Incentive Fee	Min Fee	Target Fee	Max Fee
<b>Cost Incentive Range*</b>	\$0	\$12,313,496	\$26,405,883

ii. Schedule Incentive			
<b>TO-05 Subtask 1 Schedule Fee</b>			



Interim/Progress Fee	Min Fee Due Date	Target Fee Due Date*	Max Fee Due Date*	Minimum Available Fee Amount	Target Fee Available Amount	Max Fee Available Fee Amount
ORNL Oak Ridge Research Reactor (ORR) Project Complete	N/A	3/6/2028	12/7/2027	\$0	\$1,152,222	\$2,469,048
ORNL 3038 Project Complete	N/A	2/15/2028	11/17/2027	\$0	\$1,152,222	\$2,469,048
ORNL 3517 Complex Project Complete (in accordance with Section C requirements)	N/A	4/13/2033	1/13/2033	\$0	\$1,152,222	\$2,469,048
Complete stabilization of 7m3 of cellulosic waste	N/A	9/30/2025	7/2/2025	\$0	\$1,152,222	\$2,469,048
Complete physical preparation of 6.4m3 of oxide containing waste	N/A	9/30/2025	7/2/2025	\$0	\$1,152,222	\$2,469,048
Complete Remaining field work	N/A	9/13/2032	5/12/2032	\$0	\$3,479,792	\$7,476,518
Complete Remaining paperwork-regulatory	N/A	4/13/2033	12/10/2032	\$0	\$2,304,444	\$4,938,095
<b>Total</b>				<b>\$0</b>	<b>\$11,545,347</b>	<b>\$24,759,851</b>

**\*Note the fee amount will be calculated on a daily prorated basis from the max fee due date through the target fee due date. No fee will be available beyond the target fee due date.**

iii. Performance Incentive (earned upon completion/no clawback)		
TO-05 Subtask 1 Milestones		
Interim/Progress Fee	Estimated Completion Date (for	Available Fee Amount

	information only)	
ORNL 3026 Phased Construction Completion Report FFA Milestone Complete	3/26/2025	\$312,746
ORNL 3002 and 3003 Facilities Demolition Complete	11/21/2024	\$312,746
ORNL Oak Ridge Graphite Reactor (OGR) Support Facilities Project Complete	2/12/2026	\$1,407,357
ORNL Isotope Row Complex Project Complete	3/9/2026	\$1,407,357
ORNL Oak Ridge Research Reactor (ORR) Preparation for Demolition Complete	9/14/2026	\$1,563,730
ORNL Oak Ridge Research Reactor (ORR) Project Complete	3/6/2028	\$2,971,087
ORNL 3038 Preparation for Demolition Complete	8/11/2026	\$1,250,984
ORNL 3038 Project Complete	2/15/2028	\$2,658,341
ORNL 3544 Complex Preparation for Demolition Complete	11/25/2025	\$938,238
ORNL 3544 Complex Project Complete	10/1/2026	\$938,238
ORNL 3517 Complex Preparation for Demolition Complete	8/11/2031	\$938,238

ORNL 3517 Complex Project Complete (in accordance with Section C requirements)	4/13/2033	\$2,189,222
LGWO-7961 Piping Replacement	11/14/2028	\$1,563,730
LGWO-2600 Piping Replacement	7/14/2026	\$1,563,730
LGWO-3608 Dike Repair and Reseal	11/5/2025	\$625,492
LGWO-3608 Filter Press Replacement	10/24/2024	\$625,492
Complete validation of the Cellulosic Waste Stabilization Process	3/27/2024	\$625,492
Complete stabilization of 7m3 of cellulosic waste	9/30/2025	\$1,876,476
Complete physical preparation of 6.4m3 of oxide containing waste	9/30/2025	\$2,501,968
Complete physical preparation of 16m3 of technically challenging and co-located CH TRU debris and inventory growth	8/28/2028	\$1,876,476
Complete physical preparation of 22m3 of RH TRU debris inventory	2/7/2028	\$1,876,476

Complete the Documented Safety Analysis Revision/Technical Safety Requirements Revision 1 Implementation	3/24/2024	\$1,250,984
<b>Total</b>		<b>\$31,274,604</b>

DRAFT

## Appendix B.2, Subtask 5-1 Performance Milestone Completion Criteria

<b>ORRCC PERFORMANCE MILESTONE No. 5-01</b>
<b>Title:</b> ORNL 3026 Phased Construction Completion Report FFA Milestone Complete
<b>Incentive Fee Amount:</b> Refer to Performance Incentive Milestones
<b>Fee Structure:</b> Safe and Compliant Completion
<b>Desired Endpoint/Outcome:</b> Completion of 3026D Hot Cell demolition, waste shipping, and submittal of the D1 Phased Construction Completion Report (PCCR) to DOE.
<b>Fee Bearing Milestone:</b> The Contractor shall earn fee upon submittal of the D1 PCCR to DOE.
<b>Work scope/completion criteria:</b>
Specific activities required to satisfy this milestone are:
<ul style="list-style-type: none"><li>• Completion of East Cell Bank downsizing.</li><li>• Completion of all hot cell and ancillary waste shipments.</li><li>• Decontamination and/or sealing any contamination areas on the 3026 slab.</li><li>• Development and submittal of the D1 PCCR documenting completion of the 3026D Hot Cells project.</li></ul>
Completion of select preparation for demolition activities and demolition activities through initiation of demo waste shipping was included in Task Order 3 PBI No. 3-11.
<b>Note:</b> Any slabs will be removed as needed after completion of hot cell demolition under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone. Decontamination and demolition of the fabric membrane structure is excluded from this milestone.
This milestone is associated with PWS C.3.1.1.3
<b>Completion document:</b> DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-02**

**Title:** ORNL 3002 and 3003 Facilities Demolition Complete

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of 3002 and 3003 demolition and shipping of waste. Demolition includes the 3002 slab and ventilation ducts between 3002 and 3003.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completing demolition of the 3002 and 3003 facilities.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Completion of structure downsizing for 3002, the 3002 slab, 3003, and the ventilation duct between 3002 and 3003.
- Completion of all demolition debris and ancillary waste shipments.

Completion of preparation for demolition activities for the OGR Support Facilities was included in Task Order 3 PBI No. 3-13.

**Note:** The 3003 slab will be removed as needed after completion of this demolition effort under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.5.3

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-03**

**Title: ORNL Oak Ridge Graphite Reactor (OGR) Support Facilities Project Complete**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all demolition activities for the OGR Support Facilities with the site restored and the project demobilized.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all demolition activities for the OGR Support Facilities. The facilities associated with this complex are 3002, 3003, and 3018.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Completion of structure downsizing for the 3018 stack.
- Completion of all demolition debris and ancillary waste shipments.
- Decontamination and/or sealing any contamination areas on slabs.
- Plugging of any ventilation ducts to avoid water infiltration until they can be addressed under a future remedial action.
- Site restoration and project demobilization.
- Submittal of the D1 Phased Construction Completion Report to DOE.

Completion of preparation for demolition activities for the OGR Support Facilities was included in Task Order 3 PBI No. 3-13.

**Note:** With the exception of the 3002 slab, facility slabs will be removed as needed after completion of this demolition effort under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.5.3

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-04**

**Title:** ORNL Isotope Row Complex Project Complete

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all demolition activities for the Isotope Row Complex with the site restored and the project demobilized.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all demolition activities for the Isotope Row Complex. The facilities associated with this complex are 3029, 3030, 3031, 3032, 3033, 3033A, 3034, 3036, 3093, 3099, and 3118.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Plugging of slab penetrations and floor drains
- Removal of temporary power
- Completion of structure downsizing for all facilities in the complex.
- Completion of all demolition debris and ancillary waste shipments.
- Decontamination and/or sealing any contamination areas on slabs.
- Site restoration and project demobilization
- Submittal of the D1 Phased Construction Completion Report to DOE.

Completion of select preparation for demolition activities was included in Task Order 3 PBI No. 3-12.

**Note:** Any slabs will be removed as needed after completion of this demolition effort under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.3.3

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.



**ORRCC  
PERFORMANCE MILESTONE  
No. 5-05**

**Title: ORNL Oak Ridge Research Reactor (ORR) Preparation for Demolition Complete**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all preparation for demolition activities for the ORR.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all activities associated with the preparation for demolition of the ORR. The facility associated with this project is 3042.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Removal and packaging of all remaining lead, process piping/equipment, and ACM/hazardous waste.
- Removal and packaging of reactor pool hot cells and glove boxes.
- Decontamination or removal of reactor pool liner.
- Decontamination and backfilling of the basement.
- Plugging of all slab penetrations and drains and capping of sumps.
- Removal of temporary power.
- Completion of all prep for demo waste shipments.

Completion of the reactor pool cleanout and select preparation for demolition activities was included in Task Order 3 PBIs No. 3-21 and 3-22.

**Note:** Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.7.2

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-06**

**Title: ORNL Oak Ridge Research Reactor (ORR) Project Complete**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all demolition activities for the ORR.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all activities associated with the demolition of the ORR. The facility associated with this project is 3042.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Development of a regulatory work plan (RDR/RAWP) and a Waste Handling Plan.
- Design and implementation of a groundwater collection option to offset the removal of the 3042 sump.
- Completion of structure downsizing for the 3042 facility.
- Completion of all demolition debris and ancillary waste shipments.
- Decontamination and/or sealing any contamination areas on slabs.
- Site restoration and project demobilization.
- Submittal of the D1 Phased Construction Completion Report to DOE.

Completion of the reactor pool cleanout and select preparation for demolition activities was included in Task Order 3 PBIs No. 3-21 and 3-22.

**Note:** The first-floor slab will be removed as needed after completion of this demolition effort under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.7.3

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-07**

**Title:** ORNL 3038 Preparation for Demolition Complete

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all preparation for demolition activities for the 3038 facility.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all activities associated with the preparation for demolition of the 3038 facility.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Removal and packaging of all remaining lead, process piping/equipment, and ACM/hazardous waste.
- Removal and packaging of the carousel and any remaining legacy materials therein as required to prepare for demolition.
- Removal or decontamination of areas of elevated contamination to support open air demolition of the facility.
- Plugging of all slab penetrations and drains.
- Removal of temporary power.
- Completion of all prep for demo waste shipments, excluding TRU items.

Completion of select preparation for demolition activities was included in Task Order 3 PBI No. 3-22.

**Note:** Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.2.2

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-08**

**Title:** ORNL 3038 Project Complete

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all demolition activities for the 3038 facility.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all activities associated with the demolition of the 3038 facility.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Removal and packaging of the east wing Hot Lab hot cell and pass through chamber.
- Completion of structure downsizing for the 3038 facility.
- Completion of all demolition debris and ancillary waste shipments.
- Decontamination and/or sealing any contamination areas on slabs.
- Site restoration and project demobilization.
- Submittal of the D1 Phased Construction Completion Report to DOE.

Completion of select preparation for demolition activities was included in Task Order 3 PBI No. 3-22.

**Note:** Slabs will be removed as needed after completion of this demolition effort under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.2.3

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-09**

**Title:** ORNL 3544 Complex Preparation for Demolition Complete

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all preparation for demolition activities for the 3544 Complex.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all activities associated with the preparation for demolition of the 3544 Complex. The facilities associated with this complex are 3518 Process Water Neutralization Plant and Neutralization Basin, 3544, 3544B, and 3594.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Development of a regulatory work plan (RDR/RAWP).
- Removal and packaging of all process piping/equipment and universal/ACM/hazardous waste.
- Removal and packaging of any remaining media that cannot be disposed of with demolition debris.
- Plugging of all slab penetrations and drains.
- Removal of temporary power.
- Completion of all prep for demo waste shipments.

No Task Order 3 PBIs included 3544 Complex scope.

**Note:** Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.23.2

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-10**

**Title:** ORNL 3544 Complex Project Complete

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all demolition activities for the 3544 Complex.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all activities associated with the demolition of the 3544 Complex. The facilities associated with this complex are 3518 Process Water Neutralization Plant and Neutralization Basin, 3544, 3544B, and 3594.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Development of a Waste Handling Plan.
- Decontamination and backfilling of the 3518 Process Water Neutralization Plant basement and Neutralization Basin.
- Completion of structure downsizing for the 3544 Complex facilities.
- Completion of all demolition debris and ancillary waste shipments.
- Decontamination and/or sealing any contamination areas on slabs.
- Site restoration and project demobilization.
- Submittal of the D1 Phased Construction Completion Report to DOE.

No Task Order 3 PBIs included 3544 Complex scope.

**Note:** Slabs will be removed as needed after completion of this demolition effort under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.23.3

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-11**

**Title: ORNL 3517 Complex Preparation for Demolition Complete**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all preparation for demolition activities for the 3517 Complex.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completion of all activities associated with the preparation for demolition of the 3517 Complex at ORNL. The facilities associated with this complex are 3505-T1 (3505A), 3505-T2 (3505B), 3517, 3542, 3547, 3548, and 3623.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Completion of facility characterization to support waste disposition, both for preparation for demolition and demolition.
- Removal and packaging of all lead, process piping/equipment, and universal/ACM/hazardous waste.
- Removal and packaging of all legacy materials in the hot cells, including the materials in the 10W storage well.
- Removal and packaging of all filters from the 3517 ventilation structures (3547, 3548, & 3623)
- Removal or decontamination of areas of elevated contamination to support open air demolition of the facilities.
- Plugging of all slab penetrations and drains.
- Removal of temporary power.
- Completion of all prep for demo waste shipments.

**Note:** Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.11.2

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-11**

**Title: ORNL 3517 Complex Preparation for Demolition Complete**  
**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-12**

**Title: ORNL 3517 Complex Project Complete**  
**Incentive Fee Amount:** Refer to Performance Incentive Milestones

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**ORRCC  
PERFORMANCE MILESTONE  
No. 5-11**

**Title:** ORNL 3517 Complex Preparation for Demolition Complete

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Safe and Compliant Completion

**Desired Endpoint/Outcome:** Completion of all demolition activities for the 3517 Complex.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the completion of demolition of the 3517 Complex at ORNL. The facilities associated with this complex are 3505-T1 (3505A), 3505-T2 (3505B), 3517, 3542, 3547, 3548, and 3623.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Development of a regulatory work plan (RDR/RAWP) and a Waste Handling Plan.
- Decontamination and backfilling of the pipe tunnel and any pits, wells, or subsurface structures as required to support demolition to slab.
- Completion of structure downsizing for the 3517 Complex facilities.
- Completion of all demolition debris and ancillary waste shipments.
- Decontamination and/or sealing any contamination areas on slabs.
- Site restoration and project demobilization.
- Submittal of the D1 Phased Construction Completion Report to DOE.

**Note:** Slabs will be removed as needed after completion of this demolition effort under a separate scope of work which is not included in this milestone. Transuranic waste and any waste requiring greater than DOE Type A packaging is excluded from this milestone. Subsurface cells 21-24 are excluded from this milestone.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.3.1.11.3

**Completion document:** DOE Verification with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-13**

**Title: LGWO-7961 Piping Replacement**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Completion of all pre-work items, fabrication and installation of piping, which is followed by post maintenance testing and system restart. Heat Tracing, Insulation, and As-builts are included in this milestone requirement.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the safe and compliant completion of 7961 Piping Replacement activities listed below.

**Work scope/completion criteria:**

Completion of the following work required for the repair requirement of the LGWO 7961 Above Ground Piping Replacement:

- Completion of prework documentation for work control, waste management, and procurement for piping sections below.
- Completion of As-Built drawings for piping sections below.
- Shop fabrication and hydrostatic testing of 304L stainless steel piping and associated valves, followed by installation, post maintenance testing, and winterization (heat tracing/insulation) of the following sections:
  1. 7961 Seal Water Line
  2. BV to MV Transfer Piping
  3. Caustic System
  4. Cold Metals to 3608 (J-2019A/B pump lines)
  5. Cold Metals Wetwell to Cold Metals Tank (J-2015 A/B Pump Lines)
  6. Cold Non-metals to 3608 (J-2020 A/B pump lines)
  7. Cold Non-metals Wetwell to Cold Non-metals Tank (J-2016 A/B pump)
  8. Cold Sump Transfer Piping
  9. Hot Discharge to BV (J-2018 A/B pump discharge lines)
  10. Hot Suction to BV (J-2018 A/B pump suction lines)
  11. Hot Sump Transfer Piping
  12. Hot Wetwell to Hot Tanks (J-2014 A/B/C pump lines)
  13. J-2017 Hot Jet Mixer
  14. J-2018 Hot Jet Mixer
  15. J-2019 Cold Metals Jet Mixer
  16. J-2020 Cold Non-Metals Jet Mixer
  17. J-2023 Intertank Transfer
  18. J-2024 Intertank Transfer

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-13**

**Title:** LGWO-7961 Piping Replacement

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.1.2.

**Completion document:** DOE Verification with written documentation, including As-Builts, submitted by UCOR and acceptance by DOE of work completion.

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**ORRCC  
PERFORMANCE MILESTONE  
No. 5-14**

**Title: LGWO-2600 Piping Replacement**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Completion of all pre-work items, fabrication and installation of piping, which is followed by post maintenance testing and system restart. Heat Tracing, Insulation, and As-builts are included in this milestone requirement.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the safe and compliant completion of 2600 Piping Replacement activities listed below.

**Work scope/completion criteria:**

Completion of the following work required for the repair requirement of the LGWO 2600 Above Ground Piping:

- Completion of prework documentation for work control, waste management, and procurement of piping sections below.
- Completion of As-Built drawings for piping sections below.
- Shop fabrication and hydrostatic testing of 304L stainless steel piping and associated valves, followed by installation, post maintenance testing, and winterization (heat tracing/insulation) of the following sections:
  1. Bethel Valley (BV) to Melton Valley (MV) Discharge Piping
  2. F-2101 Jet Mixer Piping
  3. F-2102 Jet Mixer Piping
  4. F-2103 Jet Mixer Piping
  5. F-2101/2102 Influent Pump Station
  6. F-2103 Influent Pump Station
  7. F-2101 to F-2102 Intertank Transfer
  8. F-2101/2102 to F2103 Intertank Transfer
  9. F-2103 to F-2101/2102 Intertank Transfer
  10. J-2101A/B/C Discharge to 3608
  11. J-2101A/B/C Suction from F-2101/2102
  12. J-2101A/B/C Suction from F-2103
  13. Sump and SWSA 4 Influent Piping
  14. 3608 Filter Press Waste Water

**Completion date:** Refer to Performance Incentive Milestones

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-14**

**Title:** LGWO-2600 Piping Replacement

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.1.2.

**Completion document:** DOE Verification with written documentation, including As-Built, submitted by UCOR and acceptance by DOE of work completion.

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**ORRCC  
PERFORMANCE MILESTONE  
No. 5-15**

**Title:** LGWO-3608 Dike Repair and Reseal

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Completion all pre-work items, cleaning and surface prep, crack repair (greater than or equal to 1/8”), followed by sealant application.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the safe and compliant completion of LGWO 3608 Dike Repair and Reseal pre-work documents and activities listed below.

**Work scope/completion criteria:**

Completion of the following work required for the repair requirement of the LGWO 3608 Dike Repair and Reseal:

- Preparation of existing sealant and preparation of dike surface for new surface adhesion.
- Crack repairs of all cracks equal to or greater than 1/8”.
- Restoration of construction joints.
- Application of sealant to the containment area.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.1.2

**Completion document:** DOE Verification in accordance with Section IV of this PEMP, with written documentation, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-16**

**Title: LGWO-3608 Filter Press Replacement**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Completion of all pre-work items, procurement of filter press and associated equipment, followed by replacement of filter press and associated equipment.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the safe and compliant completion of LGWO 3608 Filter Press Replacement activities below.

**Work scope/completion criteria:**

Completion of the following work required for the LGWO 3608 Filter Press Replacement activities:

- Completion of updated As-built drawings for filter press and associated equipment.
- Removal of existing Filter Press and associated equipment.
- Installation of new Filter Press and associated equipment including but not limited to: PLC with HMI screen inside and outside the filter press room , and piping.
- Startup of new filter press and commissioning.
- Disposition of waste.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.1.2.

**Completion document:** DOE Verification with written documentation, including as-builts, submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-17**

**Title:** Complete Validation of the Cellulosic Waste Stabilization Process

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Completion of testing and the validation report for the CBFO accepted cellulosic waste stabilization process.

**Fee Bearing Milestone:** The Contractor shall earn fee upon completing the validation of the cellulosic waste stabilization process.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Complete procedures, training, and setup for testing the cellulosic stabilization process.
- Conduct demonstration and validation of successful cellulosic waste stabilization process.
- Complete validation report and submit to CBFO.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.2, *Transuranic and Solid Waste Debris Storage and Shipment Support*

**Completion document:** Physical walkdown of site written documentation submitted by UCOR and acceptance by DOE of work completion.



**ORRCC  
PERFORMANCE MILESTONE  
No. 5-18**

**Title:** Complete stabilization of 7m<sup>3</sup> of cellulosic waste

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Complete stabilization of the 7m<sup>3</sup> cellulosic waste.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the completion of the physical stabilization of the TWPC cellulosic waste inventory.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Complete procedures, training, and setup necessary for implementing the cellulosic stabilization process.
- Complete stabilization of all cellulosic waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of containers and repackaging forms provided to CCP for certification.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.2, *Transuranic and Solid Waste Debris Storage and Shipment Support*

**Completion document:** Physical walkdown of site with written documentation submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-19**

**Title:** Complete physical preparation of 6.4m<sup>3</sup> of oxide containing waste

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Complete the physical preparation of oxide containing waste.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the completion of the physical preparation of the 6.4m<sup>3</sup> of oxide containing waste.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Complete processing of oxide containing waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of containers.
- Complete processing of any waste generated as a result of this activity, including closeout of containers and repackaging forms provided to CCP for certification.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.2, *Transuranic and Solid Waste Debris Storage and Shipment Support*

**Completion document:** Physical walkdown of site with written documentation submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-20**

**Title:** Complete physical preparation of 16m<sup>3</sup> of technically challenging and co-located CH TRU debris and inventory growth

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Complete the Site Treatment Plan milestone for the completion of the physical preparation of the 16m<sup>3</sup> of technically challenging and co-located CH TRU debris and inventory growth.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the completion of the physical preparation of the 16m<sup>3</sup> of technically challenging and co-located CH TRU debris and inventory growth.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Complete processing of all waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of containers.
- Complete processing of any waste generated as a result of this activity, including closeout of containers and repackaging forms provided to CCP for certification.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.2, *Transuranic and Solid Waste Debris Storage and Shipment Support*

**Completion document:** Physical walkdown of site with written documentation submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-21**

**Title:** Complete physical preparation of 22m<sup>3</sup> of RH TRU debris inventory

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Complete the Site Treatment Plan milestone for the completion of the physical preparation of the 22m<sup>3</sup> of RH TRU debris inventory.

**Fee Bearing Milestone:** The Contractor shall earn fee upon the completion of the physical preparation of the 22m<sup>3</sup> of RH TRU debris inventory.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Complete processing of all waste, including any necessary reprocessing to meet the Waste Acceptance Criteria, and closeout of containers.
- Complete processing of any waste generated as a result of this activity, including closeout of containers and repackaging forms provided to CCP for certification.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.2, *Transuranic and Solid Waste Debris Storage and Shipment Support*

**Completion document:** Physical walkdown of site with written documentation submitted by UCOR and acceptance by DOE of work completion.

**ORRCC  
PERFORMANCE MILESTONE  
No. 5-22**

**Title: Documented Safety Analysis Revision/Technical Safety Requirements Revision 1 Implementation**

**Incentive Fee Amount:** Refer to Performance Incentive Milestones

**Fee Structure:** Activity Completion

**Desired Endpoint/Outcome:** Complete Management Assessment for operational readiness for oxide processing.

**Fee Bearing Milestone:** Complete Management Assessment for operational readiness for oxide processing.

**Work scope/completion criteria:**

Specific activities required to satisfy this milestone are:

- Documented Safety Analysis (DSA)/Technical Safety Requirements (TSR) revision for oxide processing.
- DSA/TSR Implementation (Implementation Verification Review).
- Perform Management Assessment for Readiness.

**Completion date:** Refer to Performance Incentive Milestones

This milestone is associated with PWS C.5.2, *Transuranic and Solid Waste Debris Storage and Shipment Support*

**Completion document:** Physical walkdown of site with written documentation submitted by UCOR and acceptance by DOE of work completion.

**Appendix B.9**

**Appendix B.9, Subtask 5-1 Fee Risk Ownership**

The identification of fee risk ownership for both the Government and the Contractor is set forth below.

<b>Appendix B.9 Subtask 5-1, Fee Risk Ownership</b>				
<b>Risk ID</b>	<b>Title</b>	<b>Statement of Event</b>	<b>Type</b>	<b>Owner</b>
TO-5-03	Ineffective Execution	If project management execution is not effective, in that other DOE program offices (includes MOAs), contractors or prime contractors cannot fulfill DOE's commitments to UCOR, then task order schedule and cost performance may be impacted.	Risk	DOE
TO-5-04	Changes in Security Requirements	If federal security requirements increase, then task order cost and schedule performance may be impacted.	Risk	DOE
TO-5-05	Transportation Interruption	If a waste transportation event on the reservation, by another DOE prime contractor, (e.g., spread of contamination) results in a shutdown of waste transportation it could impact task order cost and schedule performance.	Risk	DOE
TO-5-07	Designated Landfills Unavailable	If waste disposal facilities are not available when needed for waste disposal (e.g., due to unforeseen circumstance such as temporary closure due to violations by another DOE prime contractor or significant weather event) then, there could be an impact on task order schedule and cost performance.	Risk	DOE
TO-5-09	Unexpected Hazards/Conditions (Differing site conditions)	If differing conditions are encountered that could not have been reasonably foreseen, then there could be an impact on task order schedule and cost performance.	Risk	DOE

<b>Appendix B.9 Subtask 5-1, Fee Risk Ownership</b>				
<b>Risk ID</b>	<b>Title</b>	<b>Statement of Event</b>	<b>Type</b>	<b>Owner</b>
TO-5-10	Unexpected Hazards/Conditions (Differing site conditions)	If differing conditions are encountered that could have been reasonably foreseen, then there could be an impact on task order schedule and cost performance.	Risk	Shared: DOE will consider an adjustment for Non-routine operations or S&M maintenance repairs that exceed \$250K.
TO-5-13	Regulatory Approval Delayed/ Additional Requirements Added	If regulators take longer than the prescribed/planned protocols to approve regulatory documents, or impose additional requirements, then task order performance may be impacted.	Risk	DOE
TO-5-15	Delays in internal/external DOE review/approval of required documents	If DOE takes longer than planned to review/approve documents for reasons other than quality, then task order cost and schedule may be impacted. Documents may include; DOE O 413.3B, Contract Award, Design documents, FFA regulatory documents, waste handling plans, project management plans, etc.	Risk	DOE
TO-5-17	Change in ES&H Requirements - DOE Initiated	If DOE initiates a change to ES&H requirements, then task order cost and schedule performance may be impacted.	Risk/Opportunity	DOE
TO-5-19	Extreme Weather	If an extreme weather event occurs (e.g. rain, heat, cold/snow, high winds/tornado, earthquake), then task order cost, schedule or technical performance may be impacted.	Risk	DOE
TO-5-21	Industrial Accidents	If an industrial accident by another DOE prime contractor occurs that results in a temporary shutdown of project field activities, then there may be impacts to task order cost and schedule performance.	Risk	DOE

<b>Appendix B.9 Subtask 5-1, Fee Risk Ownership</b>				
<b>Risk ID</b>	<b>Title</b>	<b>Statement of Event</b>	<b>Type</b>	<b>Owner</b>
TO-5-24	Inadequate Infrastructure Space - Non-Foreseeable	If local parking, laydown, administrative, training, and changing facilities, are not located at, or near, the project site due to non-foreseeable circumstance, then shuttle bus service may be needed to get workers to the job site, and additional laydown area accommodations may be needed. Task order cost and schedule performance may be impacted, due to cost of alternative measures and lower worker efficiency.	Risk	DOE
TO-5-26	Non-WAC Compliant Waste - Non-Foreseeable	If waste planned for disposal does not meet the disposal facility Waste Acceptance Criteria (WAC) due to non-foreseeable circumstance, then treatment/disposal may be impacted.	Risk	DOE
TO-5-29	Government Furnished Equipment Failure	If Government Furnished equipment is properly maintained and fails or requires more frequent maintenance interval than planned, then task order cost and schedule performance may be impacted.	Risk	DOE
TO-5-31	Bids Differ From Estimates	If subcontractor/supplier bids are less or greater than estimates (includes supply chain & inflation impacts), then task order schedule and cost performance could be impacted.	Risk/Opportunity	Shared: If the 3608 Dike Reseal subcontract pricing comes in = +/- \$1M from the estimated escalated bid price of \$4,582,291 a cost no fee adjustment will be made.
TO-5-32	Supply Chain - Material/Equipment Availability - Unforeseeable	If unforeseeable supply chain issues impact material/equipment availability or lead times, then task order cost and schedule may be impacted.	Risk	DOE



<b>Appendix B.9 Subtask 5-1, Fee Risk Ownership</b>				
<b>Risk ID</b>	<b>Title</b>	<b>Statement of Event</b>	<b>Type</b>	<b>Owner</b>
TO-5-34	Change in Planned Quantities Needed	If planned quantities or work processes changes (i.e., materials, characterization/verification samples, waste/soil volumes, maintenance actions) is more or less than estimated, then task order cost and schedule performance may be impacted.	Risk/Opportunity	Shared: See Appendix B.9, Subtask 5-1 Key Quantities
TO-5-38	More Characterization Needed	If the estimated quantity of characterization samples proves insufficient, then additional samples beyond the estimate will be needed.	Risk	Shared: See Appendix B.9, Subtask 5-1 Key Quantities
TO-5-40	Change in Mission or Policy - DOE Initiated	If DOE initiates mission or policy requirements change, then task order cost and schedule performance may be impacted. Includes other than ES&H related, for example; cyber security.	Risk/Opportunity	DOE
TO-5-42	Insufficient Waste Storage/Treatment Non-Foreseeable	If permitted waste storage facilities or treatment options are insufficient/ineffective and non-foreseeable, then task order cost and schedule may be impacted.	Risk	DOE
TO-5-44	NHPA Impacts Non-foreseeable	If National Historic Preservation Act (NHPA) reviews by the Tennessee State Historic Preservation Officer (SHPO) or the Council take longer than the Historic Preservation Plan (HPP) prescribed protocols, such as the Section 106 Recordation, Interpretation and Documentation for the demolition of a facility, or there is disagreement with the recommended interpretive effort then task order performance may be impacted.	Risk	DOE

<b>Appendix B.9 Subtask 5-1, Fee Risk Ownership</b>				
<b>Risk ID</b>	<b>Title</b>	<b>Statement of Event</b>	<b>Type</b>	<b>Owner</b>
TO-5-48	Waste Processed by Previous Contractor Requires Unforeseen Reprocessing	If waste containers that were previously processed at site turnover require reprocessing due to unforeseen issues, then cost and schedule may be impacted.	Risk	DOE
TO-5-49	Equipment Material Procured/Installed by Previous Contractor Does Not Meet Applicable Quality Requirements	If Equipment Material Procured/Installed by Previous Contractor Does Not Meet Applicable Quality Requirements, then cost and schedule may be impacted.	Risk	DOE

Assumed quantities associated with completion of the Section C requirements are included in Appendix B.9. In addition, the following key quantities and risk thresholds by PWS Subsection applicable to the performance of this subtask are provided in the following table.

**Appendix B.9, Subtask 5-1 Key Quantities**

PWS	Subtask 5-1 Key Quantities											
	Characterization				Preparation for Demo				Demolition			
	Key Quantities	Source of Quantity Estimate	Unesc Cost (x 1,000)	Proposed Threshold	Key Quantities	Source of Quantity Estimate	Unesc Cost (x 1,000)	Proposed Threshold	Key Quantities	Source of Quantity Estimate	Unesc Cost (x 1,000)	Proposed Threshold
<b>C.03.01.01 - 3026</b>	N/A				NA				801 CY - FMS Debris (EMWMF) 930 CY - FMS Gravel (EMWMF) 1,155 CY - Building Debris (EMWMF) 5 CY - Demo Waste (NNSS)	Based on extrapolation of West Cell Bank demolition	\$2,733	± 50% and ± \$500K
<b>C.03.01.01 - 3038</b>	N/A				481 LF - Piping Removal 720 LF - Duct 32 B-12 Containers - Mixed Waste 50 CY - ACM	Based on PK & Walkdowns	\$6,396	± 10% and ± \$800K	2,010 CY - Building Debris (EMWMF) 40 CY - Hot Cell Waste (NNSS)	Based on PK & Walkdowns	\$4,870	± 50% and ± \$500K
<b>C.03.01.03 - Isotope Row</b>	N/A				NA				1,500 CY - Building Debris (EMWMF) 150 CY - Decon Waste (EMWMF)	Based on PK & Walkdowns	\$3,441	± 50% and ± \$500K
<b>C.03.01.05 - OGR Support Facilities</b>	N/A				NA				2,384 CY - Building Debris (EMWMF) 596 CY - Stack Debris (EMWMF)	Based on PK & Walkdowns	\$9,462	± 50% and ± \$500K
<b>C.03.01.07 - 3042</b>	N/A				2,000 LF - Asbestos Piping 3 EA - Gloveboxes 3,900 LF - Piping Removal 350,000 lbs - Lead 10,000 CY - CLSM	Quantities based on field walkdowns.	\$8,722	± 10% and ± \$800K	20,267 CY - Building Debris (EMWMF)	Based on PK & Walkdowns	\$7,039	± 50% and ± \$500K
<b>C.03.01.11 - 3517</b>	72 Samples - Process Equipment 121 Samples - Building 17 Samples - RA 48 Samples - Hot Cells	Based on PK & Walkdowns, including waste forecast input from RDR/RAWP	\$7,223	± 10% and ± \$500K	160 CY - ACM 100 CY - Piping and Equipment Removal 100 CY - Ancillary Building Waste 180 CF - Lead 100 CY - Hot Cell Contents	Based on PK & Walkdowns, including waste forecast input from RDR/RAWP	\$15,783	± 10% and ± \$800K	3,777 CY - Building Debris (EMWMF)	Based on PK & Walkdowns, including waste forecast input from RDR/RAWP	\$3,383	± 50% and ± \$500K

**Appendix B.9, Subtask 5-1 Key Quantities**

PWS	Subtask 5-1 Key Quantities											
	Characterization				Preparation for Demo				Demolition			
	Key Quantities	Source of Quantity Estimate	Unesc Cost (x 1,000)	Proposed Threshold	Key Quantities	Source of Quantity Estimate	Unesc Cost (x 1,000)	Proposed Threshold	Key Quantities	Source of Quantity Estimate	Unesc Cost (x 1,000)	Proposed Threshold
<b>C.03.01.19 - EGCR</b>	NA				29,384 LF - Asbestos Insulation	Quantities based on historical reports and verified by field walkdowns.	\$3,944	± 10% and ± \$800K	NA			
<b>C.03.01.23 - 3544</b>	101 Samples - Process Equipment 96 Samples - Building 20 Samples - RA	Based on extrapolation of similar facilities at ORNL	\$1,461	± 10% and ± \$500K	3,800 CY - Equipment Removal 8,088 LF - Piping Removal 2,432 LF - Asbestos Piping 54 SF - Asbestos other	Quantities based on field walkdowns.	\$5,276	± 10% and ± \$800K	2,738 CY - Building Debris (EMWMF) 35 CY - Tank Waste (NNSS)	Based on field walkdowns and take-offs from available drawings.	\$3,433	± 50% and ± \$500K

\*Note - The cost numbers used to establish thresholds are unescalated and do not include PM, PS, or Project Document Work Packages. Values associated with agreed upon Contract Change actions may include PM/PS if the realized risk impacts the overall project critical path.

\*\*Note - OREM and UCOR will evaluate thresholds annually and determine if a contract action is needed.