# Part I – The Schedule

# Section C

# Performance Work Statement

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# ORR CLEANUP CONTRACT OVERVIEW AND OBJECTIVES

## Background

Since its inception in 1943, the U.S. Department of Energy (DOE) Oak Ridge Reservation (ORR)'s Y-12 National Security Complex (Y-12), Oak Ridge National Laboratory (ORNL), and East Tennessee Technology Park (ETTP) sites have supported a variety of DOE missions including weapons development and production, science and energy research, and isotope and nuclear fuel production. Today Y-12 and ORNL are enduring sites performing key DOE missions. Y-12, managed and operated by DOE's National Nuclear Security Administration (NNSA), processes and stores uranium to maintain the nation's nuclear stockpile and provide fuel for the U.S. Nuclear Navy. ORNL, managed and operated by DOE's Office of Science, is the nation's largest multi-program science and energy laboratory. As cleanup is completed, portions of ETTP are being transitioned to a commercial industrial park to support the regional economy.

Environmental liabilities from past DOE Oak Ridge activities remain to be addressed. To reduce risk, hundreds of excess contaminated facilities at Y-12 and ORNL must be demolished and sites with contaminated environmental media require remediation. Mercury is the prevalent legacy contaminant at Y-12, but beryllium, uranium, and other chemicals are also present. ORNL excess facilities are contaminated with a variety of radioactive isotopes, including transuranics, as well as other chemicals. Y-12 and ORNL also include DOE's Office of Environmental Management (EM) operating facilities that support waste treatment and disposal and environmental compliance. Upon completion of decontamination and demolition activities at ETTP, most of the site will be privately owned. However, DOE will retain responsibility for the remaining environmental media cleanup, post-closure monitoring and care, and historic preservation.

The mission of DOE's Oak Ridge Office of Environmental Management (OREM) is to complete cleanup of the ORR to protect the region's health and environment, make clean land available for future use, and enable vital DOE missions in science, energy, and national security. OREM's mission supports DOE strategic goals to advance America's sciences, energy security, and economic growth while minimizing the nation's environmental and national security threats.

## Contract Purpose and Objectives

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. This will be accomplished in a manner that is protective of human health and the environment.

The purpose of the ORR Cleanup Contract is to achieve maximum measurable results in advancing environmental cleanup requirements on the ORR at the best value to the U.S. taxpayer. This Performance Work Statement (PWS) includes DOE's desired outcomes and related end states to progress towards ORR cleanup completion during the period of performance.

The Contractor is responsible for the performance of the scope under the Contract, including defining the specific methods, innovations, and graded approaches for accomplishing all work to be performed and managing, integrating, and executing work described in this PWS. DOE's goal is to optimize scope completion, cost, and schedule associated with performance of all work in compliance with all applicable requirements. The work often involves accessing classified information, up to and including Secret Restricted Data level and category and/or special nuclear material, both of which require access

authorizations (clearances). Therefore, the contractor must possess a facility clearance before access authorizations may be granted.

The Contractor shall comply with the Federal Facility Agreement (FFA); the Oak Ridge Reservation Site Treatment Plan; approved Records of Decision (RODs) and other Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA) decision documents; and other applicable regulatory requirements. Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements apply to certain facilities/areas as specified in 29 *Code of Federal Regulations (CFR)* 1910.120.

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. Streamlining processes, eliminating non-value-added requirements, and identifying efficiencies and performance improvements are critical to accomplishing accelerated cleanup. The Contractor shall, throughout the Contract period of performance, seek to reduce non-value-added requirements and processes that impede progress and identify efficiencies and performance improvements that reduce the actual cost and/or improve the schedule for the work.

## Description of Performance Requirements

### Scope Summary and Work Authorization

The overall scope of this Contract includes the following:

(a) **Transition:** Transition includes activities for the incoming transition from the ETTP Cleanup Contract to the ORR Cleanup Contract and the outgoing transition to the follow-on contractor.

(b) **Cleanup:** Cleanup of the ORR encompasses preparation for demolition and/or demolition of numerous facilities and remediation of environmental media at ETTP, ORNL, and Y-12. Cleanup includes disposal of all associated wastes.

(c) **Construction and/or Startup of Mission Support Facilities:** Complete Phase 1 construction and initiate operation of the Environmental Management Disposal Facility (EMDF), and complete commissioning of the Outfall 200 Mercury Treatment Facility (MTF) at Y-12.

(d) **Operations:**

(1) Liquid and Gaseous Waste Operations (LGWO): Operate and maintain LGWO facilities to dispose of ORNL and OREM liquid and gaseous wastes and ensure reliability of these essential systems and services.

(2) Transuranic Waste Debris Storage and Shipment Support: Manage OREM's remaining transuranic (TRU) waste inventory and support shipments to the Waste Isolation Pilot Plant (WIPP).

(3) Surveillance and Maintenance of EM-owned Facilities and Sites at ORNL and Y-12: Maintain OREM's excess contaminated facilities and sites to ensure a safe and stable condition that minimizes risks pending facility demolition and/or site remediation.

(4) CERCLA Disposal Facilities and ORR Landfills: Operate and maintain disposal facilities to ensure efficient disposal of cleanup debris and other wastes.

(5) Outfall 200 MTF Operations: Operate and maintain the newly constructed MTF to reduce mercury contamination in Y-12 surface waters.

(6) ETTP Site Closure, Historic Preservation, and Environmental Monitoring: Complete closure of ETTP as a DOE site and implement environmental monitoring responsibilities. Complete historic preservation commitments.

The scope in the PWS will be authorized by Task Orders that will be defined and individually negotiated before and/or during the Contract period of performance.

The Contractor is responsible for managing, integrating, and executing the work described in this PWS as authorized through Task Orders. The Contractor shall provide all personnel, facilities (office space, change houses, etc.), equipment, materials, services, and supplies required to complete the Contract work scope, except for the items identified as government-furnished services and information as described in Section J, Attachment J-8, *Government-Furnished Services and Information*. The permanent duty station for employees and subcontractors who are permanently assigned to this Contract is located on the Oak Ridge Reservation or in Oak Ridge, TN.

The ORR Cleanup Contract scope contains both capital and non-capital asset acquisition projects and activities. The Contractor shall be responsible for the integration and management of all projects and subprojects. The Contractor shall maximize efficient and cost-effective methods for completing the work scope. The Contractor shall be the single point of accountability for the ORR Cleanup Contract activities, safety and quality assurance programs, interface with ORNL and Y-12 site contractors, and project management in the performance of this Contract, including any subcontracts. The Contractor shall develop a regulatory approach for all work under this Contract and ensure regulatory approval is obtained for any related changes to regulatory requirements prior to their execution.

Some of the facilities included in this ORR Cleanup Contract scope may currently be the responsibility of DOE program offices other than EM and/or other contractors, including but not limited to the facilities identified in Attachment C-1, *Facility and Site List*. The Contractor shall support transfer and/or accept operational responsibility for these facilities to support execution of the work. Likewise, certain facilities currently included in the Contract scope may be transferred to other DOE program offices. The Contractor will be performing Contract scope in environments where other DOE contractors are engaged in activities that are not controlled by the Contractor's programs and procedures (e.g., work planning and control, safety and health). The Contractor shall develop interface documents with other DOE contractors, as needed, to support transition, stipulate respective roles and responsibilities, and define services to be provided by other DOE contractors. Interfaces and roles and responsibilities are summarized in Section J, Attachment J-3, *Site Services and Interface Requirements.* The Contractor shall interact in such a way as to avoid or minimize impacts to the successful performance of the scope under the Contract and to programmatic site mission operations and activities.

In the performance of this Contract, the Contractor shall comply with all applicable laws, regulations, permits, and DOE Directives (including invoked Technical Standards), including but not limited to those identified in Section J, Attachment J-2, *Requirements Sources and Implementing Documents*. The Contractor shall also comply with all CERCLA decision documents in effect for the ORR while conducting the authorized scope of work.

The Contractor shall support OREM in achieving its goals, as described in the DOE Office of Environmental Management Annual Performance Agreement in effect during the period of performance.

## C.1 Contract Transition

### C.1.1 Incoming Transition

The contract transition period is estimated to be 90 days. The first day of the Transition Period will be the effective date of the transition task order. DOE will issue a Notice to Proceed, identifying the effective

date of the transition task order. During the transition period, the Contractor shall perform those activities that are necessary to transition work from the previous ETTP contractor in a manner that: (1) ensures that all work for which the Contractor is responsible under the contract is continued without disruption; (2) provides for an orderly transfer of resources, responsibilities, and accountability from the previous contractor; and (3) provides for the ability of the Contractor to perform the work in an efficient, effective, and safe manner. Workforce transition shall be managed in accordance with the requirements of applicable Section H Contractor Human Resource Management clauses.

The Contractor shall establish the necessary logistical support (office space, computers, telephone, etc.) to execute the 90-day transition period (estimated) and shall ensure all necessary personnel, including key personnel for the Contractor, are available during the transition period, unless specifically directed otherwise by the Contracting Officer (CO). All key personnel shall be assigned full-time to their respective positions and shall meet the requirements detailed in Section H.44, Key Personnel.

The desired outcome is the readiness to assume full responsibility for OREM facilities and activities for execution of subsequent Task Orders upon direction by the CO.

As authorized by Task Order 1, the Contractor shall perform the activities necessary to declare readiness to assume responsibility for the following:

- Facilities, activities and in-process work documented in Task Order 2
- Incumbent contractor's subcontracted work as deemed necessary
- Workforce in accordance with the requirements of Section H of this Contract

Within 15 days after a Notice to Proceed, the Contractor shall submit a Transition Plan for DOE approval that provides sufficient detail for all transition activities, including but not limited to: a description of all necessary transition activities; a list of the organizations involved; a transition spend plan and a transition schedule, including key milestones; earned value reporting during transition; Memoranda of Understanding (MOUs) with outside organizations; required utilities; and other transition activities such as acquisition of necessary equipment, hiring and training of personnel, and development or revisions of required plans and procedures. The Contractor is responsible for performing due diligence to ensure that all transition activities are identified and completed during the transition period (see Task Order 1, Section J, Attachment J-7, *Contract Deliverables*).

The list below includes the major elements necessary for transition of the Contract, but does not include all transition requirements. The following items shall be addressed in the Transition Plan:

(a) **Public Release Statement:** Within 72 hours following the effective date of the Contract Transition Task Order, the Contractor shall release on its own website a brief Executive Summary of its offer including the following elements:

(1) Name of Contractor including the identification of teaming partners and subcontractors, and a description of the experience that each party brings to the project

(2) Summary/description of Contractor's management approach

(3) Organizational structure and identification of key personnel

(4) Contractor performance commitments

(5) Brief overview of Contractor's work on similar projects

(6) Commitments to the community

(7) Commitments to small business subcontracting (if applicable)

(b) **Implementation of Human Resources Management Requirements:** The Contractor's Transition Plan required above shall include a description of the Contractor's implementation of human resource management consistent with requirements as described in Section H, clauses H.4 through H.7, including:

(1) Expected workforce composition and any immediate or anticipated workforce restructuring

(2) Identification of any existing issues under the National Labor Relations Act and the Contractor's plan for engaging with labor representatives

(3) A schedule for preparation and submission of any bargaining parameters requests

(4) Identification of any prevailing wage requirements, including requirements under Section 4(c) of the Service Contract Labor Standards statute as well as National Labor Relations Act requirements regarding determination of wages and benefits

(5) Descriptions of processes for handling labor standards determinations for work packages

(6) Definition of obligations regarding pension and post-retirement benefit plans

(7) A plan for identification and resolution of any legal issues regarding the above, including the Contractor's plan for engaging outside counsel as needed

(8) A plan for communicating and engaging with DOE on these matters

(c) **Inter-contractor Ordering and Financial Agreements:** The Contractor shall develop the inter-contractor ordering and financial agreements necessary to support transition and Contract performance, and will be responsible for the costs incurred under these agreements.

(d) **Programs and Procedures:** To ensure continuity of operations, the Contractor may adopt, as applicable, the incumbent contractors' programs and procedures at the effective date of the transition task order (e.g. Safety Analysis Reports (SAR), Technical Safety Requirements (TSR), operating procedures, etc.), provided the Contractor has formally reviewed the programs and procedures to ensure compliance with contract requirements, current regulatory requirements, DOE Orders and directives, and the Contractors' organizational roles and responsibilities. The Contractor shall revise those programs and procedures it deems necessary, provided the programs and procedures remain in compliance with DOE requirements, and shall maintain its plans, procedures, programs, etc. in accordance with this PWS. Any Programs and Procedures that are adopted shall be updated to the new Contractor's organization within the first year of the effective date of the contract.

(e) **Status Reports – Transition Activities:** The Contractor shall provide weekly status reports of transition activities to DOE. The Contractor shall establish routine status meetings with DOE and affected contractors to review transition activities and issues (see Task Order 1, Section J, Attachment J-7, *Contract Deliverables*).

(f) **Government-owned Property:** All real and personal property currently accountable to the incumbent contractor for contract performance will be provided to the Contractor. During the transition period, an inventory record of such property in the DOE Facilities Information Management System (FIMS) and the incumbent contractor's personal property databases will be provided to the Contractor. Specifically, the following property acceptance requirements will be implemented:

(1) The Contractor shall perform a joint comprehensive physical inventory with the incumbent contractor of all accountable high-risk and sensitive property, as defined in *CFR* Title 41, Chapter 109, during the transition period, and shall accept full accountability for the high-risk and sensitive property at the end of transition.

(2) At the end of transition, the Contractor shall accept transfer of accountability for the remaining government-owned real and personal property not covered under paragraph (1), based on existing inventory records on an as-is, where-is basis, or shall perform a wall-to-wall inventory within the transition period of the Contract. At the discretion of the Contractor, a review of existing inventory records may be performed during transition. Any discrepancies with the existing inventory records shall be reported to the CO. If the physical inventory is not accomplished within the allotted time frame, the previous contractor's records will become the inventory baseline.

(3) Once the Standard Form 122, *Transfer Order – Excess Personal Property*, is completed and approved by the CO/Organizational Property Management Officer, the Contractor shall assume responsibility and liability for subsequent losses and damages.

(g) **DOE Safeguards and Security (S&S) Survey:** During the transition period and prior to assuming control and responsibility for S&S responsibilities, the Contractor shall be subject to a DOE S&S initial survey conducted in accordance with DOE Order 470.4, *Safeguards and Security Program*. The results of the survey shall be documented and shall form the basis for DOE authorization to assume S&S responsibilities, in particular responsibility for special nuclear material. Following a satisfactory survey and upon CO direction, the Contractor shall assume responsibility for all applicable S&S resources, materials, facilities, documents, and equipment.

(h) **Legal Management Transition:** The Contractor shall ensure all legal management activities are addressed pursuant to the Section H clause *Legal Management* and 10 *CFR* Part 719.

(i) **Communication of Contractor's Approach:** The Contractor shall communicate its approach and commitments for accomplishing the scope of the Contract to workers, federal staff, stakeholders, and other interested entities during the transition period.

(j) **Graded Approach:** The Contractor shall submit a Graded Approach for Implementation of Contract Requirements Plan for DOE approval to streamline processes, apply a graded approach, and identify efficiencies and performance improvements (e.g., DOE directives, regulations, and others) that are critical to accomplishing the site mission. The plan shall include a review and recommendations of changes to the current site standards and implementing procedures for eliminating requirements and/or streamlining processes. The Contractor shall interface with the other site contractors on proposed changes, as necessary.

(k) **Task Order Proposals:** During transition, DOE will request Task Order proposals that are compliant with Federal Acquisition Regulation Subpart 15.4 (see Task Order 1, Section J, Attachment J-7, *Contract Deliverables*). The CO will provide direction as applicable regarding these Task Orders..

(l) **Design Authority:**

(1) The Contractor shall review the preliminary EMDF design with the incumbent contractor such that the Contractor assumes Design Authority responsibilities at the conclusion of the transition period.

(2) The Contractor shall review the final DOE-approved design for the Outfall 200 MTF, approved design changes, and construction progress with the incumbent contractor such that the Contractor assumes Design Authority responsibilities at the conclusion of the transition period.

(m) **Declaration of Readiness:** The Contractor shall submit a Declaration of Readiness to Execute the Contract to the CO, prior to the end of transition, that indicates the Contractor's readiness to assume responsibility for execution of the Contract upon CO direction. The Contractor shall also identify any post-transition activities that are required to be completed (e.g., notifications to outside agencies of transfer of co-operator responsibilities, completion of procedure updates).

### C.1.2 Outgoing Transition and Closeout

The desired outcome is a seamless transition of full responsibility for OREM facilities and activities to a successor contractor.

As authorized by Task Order, the Contractor shall perform those activities necessary to transition the work under this Contract to a successor contractor upon contract expiration:

- Cooperate with the incoming contractor to ensure all work for which the Contractor is responsible under the Contract continues without disruption in an efficient, effective, and safe manner.
- Provide for an orderly transfer of resources, responsibilities, and accountability from the Contractor.

The Contractor shall provide a plan for closeout activities at least 60 days prior to Contract expiration or when directed by the CO. The Contractor shall also cooperate with and support the successor contractor's phase-in plan.

## C.2 Post-Retirement Medical Benefits, Long-Term Disability, and Pension Contribution

As authorized by Task Order, the Contractor shall:

- Fund the post-retirement medical benefits for ORR EM workers retiring prior to April 1, 1998 in coordination with the NNSA Management and Operating (M&O) contractor at Y-12.
- Manage and fund the post-retirement medical benefits for ORR EM workers retiring on or after April 1, 1998.
- Manage and fund the long-term disability program for all ORR EM workers.

In addition, the Contractor shall manage and fund the pension plan for Grandfathered Employees.

## C.3 Cleanup

The desired outcome is maximized completion of end-states for excess contaminated facilities and/or remediation of environmental media at Y-12, ORNL, and ETTP in a safe, efficient, and compliant manner in accordance with approved regulatory documents and DOE Directive requirements. Completion of end-states shall maximize reduction of environmental liabilities and related risks. Desired outcomes for the cleanup scope (listed in C.3.1, C.3.2, and C.3.3) are expressed in terms of completion of some or all of the following cleanup end states:

**Characterization**

The desired outcome of this end state is a characterized facility with approved documentation (e.g., data quality objectives [DQOs], sampling and analysis plans, quality assurance plan, and waste handling plan

pursuant to the FFA. The Contractor shall mobilize personnel and equipment and establish access controls. The Contractor shall ensure worker and environmental safety and health through monitoring and protection.

Characterization work includes, but is not limited to the following activities as necessary or required:

- DQO preparation for the specific waste streams in accordance with U.S. Environmental Protection Agency (EPA) QA/G-4 (EPA/600/R-96/055) guidance or equivalent as required by DOE Order 435.1
  - Identifying and evaluating historical documents and conducting interviews, as necessary, to develop documentation in support of process knowledge to support sampling decisions
  - Presenting the DQO, including proposed sampling methods and locations, to Potential Responsible Parties or appropriate stakeholders and obtaining agreement
- Developing project-specific sampling and analysis plans and quality assurance plans to document agreed-upon sampling methods and locations (via the DQO sessions) for the specific waste streams
  - Preparing sampling and analysis plans in accordance with approved DQOs, EPA protocols, and approved FFA documentation
  - Ensuring the sampling and analysis plans describe a phased approach for collecting data to satisfy the waste acceptance criteria (WAC) of the intended disposal facility
- Preparing the project-specific waste handling plan for pre-demolition and demolition waste
- Collecting random and biased (as needed) physical, structural, debris, soil, and slab samples using standard EPA protocols for sample collection methodologies and analytical test methods as specified in EPA Guidance SW-846, Test Methods for Evaluating Solid Waste: Physical/ Chemical Methods
- Performing surface scans and direct measurements to support radiological safety or characterization requirements as applicable
- Ensuring all commitments are completed as specified in applicable EPA and FFA protocols and approved documentation
- Performing a data quality assessment briefing with DOE to demonstrate that sample analytical results meet WAC for the intended disposal facility
- Ensuring that sample analytical results are properly formatted to allow direct transfer into DOE data management systems such as Oak Ridge Environmental Information System (OREIS), Project Environmental Measurements System (PEMS), and others
- Performing and coordinating field oversight and field technical support associated with characterization activities

**Preparation for Demolition**

The desired outcome of this end state is a facility ready for demolition that no longer requires regular personnel access (i.e., condemned with no further entry authorized). Preparation for demolition activities should be conducted in accordance with standard industry practices and should include the compliant disposition of all wastes generated.

Preparation for demolition work includes, but is not limited to the following activities as necessary or required:

- Mobilization of personnel and equipment and establishment of access controls

- Ongoing characterization to ensure protection of worker health and safety
- Worker and environment safety and health, monitoring, and protection equipment and plans
- Removal of legacy material
- Deactivation and isolation of utility systems
- Abatement, removal, and disposition of hazardous materials (e.g., fluids, asbestos, universal wastes, and other Resource Conservation and Recovery Act [RCRA] wastes)
- Stabilization of pipes, ducts, and equipment including venting, purging, and draining
- Decontamination or stabilization of surface contaminants (e.g., mercury in walls may require stabilization or passive extraction prior to demolition, beryllium may be stabilized with a fixative prior to invasive work, and radioactive contamination may be managed with a fixative spray)
- Removal and disposal of process equipment
- Ensuring proper management and disposal of any classified information, material, equipment, or waste
- Preparation of Critical Decision (CD) documentation to obtain DOE approvals as required by DOE Order 413.3 prior to initiating demolition; the Contractor shall define a sound engineering approach to demolition and waste management in order to develop a defensible baseline and obtain funding approval.

**Demolition**

The desired outcome of this end state is a facility footprint cleared, stabilized, and prepared for subsequent environmental media remediation or future use. Demolition includes the disposition of all wastes generated during these activities.

The Contractor shall complete facility demolition in a safe and environmentally sound manner and in accordance with DOE and other regulatory requirements. Facility demolition activities include, but are not limited to:

- Mobilization of personnel and equipment and establishment of access controls
- Implementation of plans and procedures for worker and environmental safety and health, monitoring, and protective equipment
- Waste segregation and packaging
- Hazardous and radioactive contaminant control throughout decontamination and demolition, packaging, and disposal activities
- Removal and disposition of structural, non-friable asbestos (e.g., transite siding)
- Preparations for decontamination, dust suppression, and stormwater runoff and containment
- Preparations and protection of surrounding environmental media during building demolition (e.g., protection of soils from releases of mercury during building demolition)
- Capture, storage, and treatment of contaminated contact water (e.g., decontamination fluids, stormwater that contacts waste or debris and becomes contaminated)
- Completion of necessary characterization to determine whether remediation of soils under the building is required prior to slab removal
- Demolition of structures
- Removal of building slabs; however, DOE may determine that the slabs should remain for a future remedial action prior to removal

- Size reduction and segregation of demolition material, if necessary
- Site stabilization and decontamination and stabilization of any remaining building slabs in accordance with regulatory agreements
- Preparation of the required waste profiles, transportation documentation, and any other required documents to allow for waste treatment, storage, or final disposal
- Loading, hauling, and disposition of all materials and debris in accordance with the DOE-approved Waste Management Program Plan's waste disposition hierarchy
- Removal and demobilization of site operations, support facilities, fencing, and equipment
- Submission of required DOE Order 413.3 and regulatory progress and completion documents and FIMS update

Opportunities exist to reduce the cost and/or risk presented by facility demolition. Careful planning and execution should be performed to minimize the generation of contaminated waste (e.g., mercury).

The Contractor shall apply lessons learned from across the DOE Complex when considering open air demolition to ensure proper controls are implemented for protecting human health and the environment, complying with applicable regulations, and preventing the spread of contamination. This is particularly important as certain facilities are contaminated with highly mobile hazardous contaminants (e.g., beryllium, mercury, transuranics) and demolition will take place on operating Y-12 and ORNL sites in close proximity to mission critical facilities and activities with personnel not otherwise related to the Contractor's activities.

Management and treatment of stormwater, contaminated water, and dust suppression water during demolition activities may be required; this could be provided by the Outfall 200 MTF, ORNL LGWO, and/or other water management and treatment systems. Suppression of the groundwater table during demolition should be considered, as necessary. The Contractor shall plan for proper control of hazardous and radioactive contaminants.

The Contractor shall plan and obtain DOE and regulatory approval of waste disposal paths and decisions regarding disposition of building slabs.

**Environmental Media Remediation**

The desired outcome for this end state is remediated soil or water that meets regulatory requirements and enables transfer of remediated areas for reuse. Environmental media remediation may include removal of slabs and subsurface structures (as determined by DOE); soil treatment; soil excavation and disposal; and surface and groundwater monitoring and/or treatment systems in accordance with approved regulatory decision documents. Characterization of soils, subsurface structures, and other environmental media should be completed to determine and support approvals of disposition paths. Prior characterization may have been completed in some instances. Existing data should be evaluated to determine data gaps that will be addressed through limited characterization during these activities.

The scope includes DQO meetings between DOE and the regulatory parties to determine the characterization data requirements, the media sampling and analysis plan, and the quality assurance project plan. The FFA primary documents (i.e., remedial action work plan and waste handling plan) remediation data shall be archived in the OREIS database as required by the FFA.

Excavated contaminated soils should be disposed of in the most cost-effective manner feasible after consideration and selection of treatment and/or disposal options in accordance with the DOE-approved Waste Management Program Plan's waste disposition hierarchy. The accumulation of stormwater within excavated areas should be avoided (e.g., by filling in areas as soon as practicable). Groundwater seepage

and any collected stormwater from excavated areas should be sampled for contamination and, depending on sampling results, managed per applicable regulatory requirements.

Isolation technologies may offer comparable environmental protection at lower cost and should be evaluated and implemented as appropriate. The Contractor shall obtain the necessary regulatory approvals in the treatment decision-making process, during the development of waste handing plans, and regarding design parameters for soil and sediment remedial actions.

## C.3.1 ORNL Cleanup

As authorized by Task Order, the Contractor shall perform cleanup (characterization, preparation for demolition, demolition, and environmental media remediation) including but not limited to the ORNL facilities, complexes, and areas listed below. Cleanup shall be performed in accordance with the following regulatory documents, as applicable, and may be modified by subsequent regulatory agreements or requirements.

- *Record of Decision for Interim Actions in Bethel Valley, Oak Ridge, Tennessee* (DOE/OR/01-1862&D4)
- *Record of Decision for Interim Actions for the Melton Valley Watershed at the Oak Ridge National Laboratory, Oak Ridge, Tennessee* (DOE/OR/01-1826&D3)
- *Record of Decision for Interim Action to Remove Fuel and Flush Salts from the Molten Salt Reactor Experiment Facility at the Oak Ridge National Laboratory, Oak Ridge, Tennessee* (DOE/OR/02-1671&D2)

For additional details, refer to Table 1 of Attachment C-1, *Facility and Site List*.

### *C.3.1.1 3026 Hot Cells*

The 3026 Hot Cells area is administratively separated into two sections: 3026-C and 3026-D. Two concrete pedestals remain on the 3026-C slab; the slab and pedestals will be removed as part of environmental media remediation. Two hot cell structures remain on the 3026-D slab: the Storage and Sorting Cell and the East Cell Bank. The desired outcome is demolition of the 3026-D hot cell structures to the slab with the footprint cleared and the slab stabilized and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.1.1 3026 – Characterization

C.3.1.1.2 3026 – Preparation for Demolition

C.3.1.1.3 3026 – Demolition

### *C.3.1.2 3038 Facility*

The desired outcome is demolition of the 3038 Radioisotope Laboratory, including hot cells, with a footprint cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.2.1 3038 – Characterization

C.3.1.2.2 3038 – Preparation for Demolition

C.3.1.2.3 3038 – Demolition

### *C.3.1.3 Bethel Valley Isotopes Area Facilities*

The Bethel Valley Isotopes Area Facilities (also known as Isotope Circle) include the following facilities and structures:

- Building 3029, Radioisotope Production Laboratory-B
- Building 3030, Radioisotope Production Laboratory-C
- Building 3031, Radioisotope Production Laboratory-D
- Building 3032, Radioisotope Production Laboratory-E
- Building 3033, Radioisotope Production Laboratory-F
- Building 3033A, Radioisotope Production Laboratory Annex
- Building 3034, Radioisotope Area Services
- Building 3036, Isotope Area Storage and Service Building
- Facility 3093, Storage Cubicle for Krypton
- 3099 Storage Pad for Buildings 3031 and 3032
- 3109 Pressurized Off-gas System Filter Pit
- 3110 Isotopes Filter House
- Building 3118, Radioisotope Production Laboratory-H
- 3126 Normal Off-gas System Charcoal Filter Pit
- 3139 Cell Ventilation Filters

The desired outcome for the Bethel Valley Isotopes Area Facilities is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.3.1 Isotopes Area – Characterization

C.3.1.3.2 Isotopes Area – Preparation for Demolition

C.3.1.3.3 Isotopes Area – Demolition

### *C.3.1.4 Graphite Reactor Historic Preservation*

The Graphite Reactor includes the following facilities and structures:

- Building 3001, Graphite Reactor (to be stabilized only, see below)
- Underground Exhaust Ducts (for Buildings 3001, 3002, and 3003) (to be stabilized in place)

The Oak Ridge Graphite Reactor is a National Historic Landmark and is part of the Manhattan Project National Historical Park. The desired outcome is for the Graphite Reactor and associated underground exhaust ducts to be stabilized in place for historic preservation (not demolished). Stabilization scope includes characterization, abatement of hazardous materials and radiological contamination, and stabilization to enable public access as a museum facility. All activities conducted in the Graphite Reactor require careful coordination with DOE, the National Park Service, and the Tennessee State Historic Preservation Officer.

### *C.3.1.5 Graphite Reactor Support Facilities*

The Graphite Reactor Support Facilities include the following facilities and structures:

- Building 3002, Filter House for Graphite Reactor
- Building 3003, Solid State Accelerator Facility
- Building 3018, Cell Ventilation and Off-gas Exchange Stack

The desired outcome for the Graphite Reactor Support Facilities is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.5.1 Graphite Reactor Support – Characterization

C.3.1.5.2 Graphite Reactor Support – Preparation for Demolition

C.3.1.5.3 Graphite Reactor Support – Demolition

### *C.3.1.6 Bethel Valley Bulk Shielding and Low Intensity Test Reactors Complex*

The Bethel Valley Bulk Shielding and Low Intensity Test Reactors Complex includes the following facilities and structures:

- Building 3005, Low Intensity Test Reactor Facility
- Building 3009, Pump House for Building 3010
- Building 3010, Bulk Shielding Reactor
- Building 3010A, Bulk Shielding Reactor Annex
- Building 3080, Reactor Experiment Control Room
- Building 3083, Neutron Spectrometer Station 1 and Neutron Flight Tube

The desired outcome for the Bethel Valley Bulk Shielding and Low Intensity Test Reactors Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.6.1 Bulk Shielding and Low Intensity Test Reactor – Characterization

C.3.1.6.2 Bulk Shielding and Low Intensity Test Reactor – Preparation for Demolition

C.3.1.6.3 Bulk Shielding and Low Intensity Test Reactor – Demolition

### *C.3.1.7 Oak Ridge Research Reactor Facilities*

The Oak Ridge Research Reactor Facilities include the following facilities and structures:

- Building 3042, Oak Ridge Research Reactor
- Building 3107, 25-meter Target House

The desired outcome for the Oak Ridge Research Reactor Facilities is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.7.1 Oak Ridge Research Reactor – Characterization

C.3.1.7.2 Oak Ridge Research Reactor – Preparation for Demolition

C.3.1.7.3 Oak Ridge Research Reactor – Demolition

### *C.3.1.8 3028 Facility*

The desired outcome is demolition of the 3028 Radioisotope Production Laboratory and associated hot cells with a footprint cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished via the following end states, as described in Section C.3:

C.3.1.8.1 3028 – Characterization

C.3.1.8.2 3028 – Preparation for Demolition

C.3.1.8.3 3028 – Demolition

### *C.3.1.9 Bethel Valley Chemical Development Lab Facilities*

The Bethel Valley Chemical Development Lab Facilities include the following structures:

- Building 4507, High Level Chemical Development Laboratory
- Building 4556, Filter Pit for Building 4507

The desired outcome for the Bethel Valley Chemical Development Lab Facilities is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.9.1 Chemical Development Lab – Characterization

C.3.1.9.2 Chemical Development Lab – Preparation for Demolition

C.3.1.9.3 Chemical Development Lab – Demolition

### *C.3.1.10 3515 Facility*

The desired outcome is demolition of the 3515 Fission Product Pilot Plant with a footprint cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.10.1 3515 – Characterization

C.3.1.10.2 3515 – Preparation for Demolition

C.3.1.10.3 3515 – Demolition

### *C.3.1.11 3517 and Support Facilities*

The 3517 and Support Facilities include the following facilities and structures:

- Building 3517, Fission Product Development Laboratory
- 3505-T1, Caustic Storage Tank (3505A)
- 3505-T2, Acid Storage Tank (3505B)
- Building 3542, Storage Building for Buildings 3505 and 3517
- 3547, Cell Ventilation Roughing Filter for 3517
- 3548, Cell Ventilation Filters for 3517
- Building 3623, Flanders Filter House for Building 3517
- Building 3624, Flammable Storage for Building 3517
- K4489, Cooling Tower at 3517

The desired outcome for the 3517 and Support Facilities is demolition of all facilities with footprints cleared and stabilized (including below-ground pipe tunnels and tank cell vaults; buildings will be demolished, including the foundation of the facilities, and soil will be removed to two feet below grade; some below-grade structures will have contents removed and will be grouted in place), and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.11.1 3517 – Characterization

C.3.1.11.2 3517 – Preparation for Demolition

C.3.1.11.3 3517 – Demolition

### *C.3.1.12 7500 Complex*

The 7500 Complex includes the following facilities and structures:

- Building 7500, Homogeneous Reactor Experiment
- 7560, Liquid Low-level Radioactive Waste (LLLW) Condensate Tank for 7500
- 7562, LLLW Collection and Storage Tank for 7500

The desired outcome for the 7500 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.12.1 7500 – Characterization

C.3.1.12.2 7500 – Preparation for Demolition

C.3.1.12.3 7500 – Demolition

### *C.3.1.13 2026 Complex*

The 2026 Complex includes the following facilities and structures:

- Building 2026, Radioactive Materials Analytical Laboratory
- Building 2101, Waste Management Organization Health and Hygiene Support
- 2026-CT, Cooling Tower for Building 2026
- 2026-ES, 2026 Filter Pit Exhaust Stack
- 2026-FP, 2026 Filter Pit and Enclosure
- 2032, Manhole 240 Monitoring Station 1
- 2099, Monitoring Control Station for Building 2026

The 2026 Complex is expected to become part of this Contract's scope under Section C.5.3.1 after the incumbent contractor completes uranium-233 processing activities. The desired outcome for the 2026 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.13.1 2026 – Characterization

C.3.1.13.2 2026 – Preparation for Demolition

C.3.1.13.3 2026 – Demolition

### *C.3.1.14 2525 Complex*

The 2525 Complex includes the following facilities:

- Building 2525, Fabrication Department Shop A
- Building 2547, General Machine Shop

The desired outcome for the 2525 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.14.1 2525 – Characterization

C.3.1.14.2 2525 – Preparation for Demolition

C.3.1.14.3 2525 – Demolition

### *C.3.1.15 2528 Complex*

The 2528 Complex includes the following facilities and structures:

- Building 2528, Coal Research Lab
- Building 2528A, Melton Valley Storage Tanks Demonstration Facility

The desired outcome for the 2528 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.15.1 2528 – Characterization

C.3.1.15.2 2528 – Preparation for Demolition

C.3.1.15.3 2528 – Demolition

### *C.3.1.16 3019 Complex*

The 3019 Complex includes the following facilities and structures:

- Building 3017, Quality Services Division
- Building 3019A, Radiochemical Development Facility
- Building 3019B, High Level Radiation Analytical Lab
- 3020, Exhaust Stack
- 3091, Filter House
- 3100, Source and Special Materials Vault
- 3108, Filter House
- 3121, Off-gas Filter House for 3019A
- 3123, Level 2 Emergency Generator (80-3123)
- 3123-TK, Diesel Fuel Storage Tank (X188092)
- Building 3130, Waste Operations Control Center
- 3130-80, Optional Standby Diesel Generator
- 3130-TK, 3130 Diesel Fuel Storage Tank (X188035)
- 3131, Level 2 Backup Diesel Generator (X903131)
- 3131-TK, 3019 Diesel Fuel Storage Tank (X187992)
- Building 3135, Sentry Post 8D
- Building 3137, Surface Science Lab
- Building 3145, Low-level Radioactive Waste (LLW) Collection Building
- 3146-80, Level 1 Emergency Generator (X190485)
- 3146-TK, Diesel Fuel Storage Tank (X187993)
- Building 3160, Building 3019 Motor Control Center #1 and #2
- Building 3161, Quality Services Division Storage Building
- Building 3162, Quality Services Division Storage Building

The 3019 Complex is expected to become part of this Contract's scope under Section C.5.3.1 after the incumbent contractor completes uranium-233 processing activities. The desired outcome for the 3019 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.16.1 3019 – Characterization

C.3.1.16.2 3019 – Preparation for Demolition

C.3.1.16.3 3019 – Demolition

### *C.3.1.17 Reserved*

### *C.3.1.18 Central Stack East Hot Cell Facilities Complex*

The Central Stack East Hot Cell Facilities Complex includes the following facilities and structures:

- Building 3027, Dispatch Center
- Building 3027A, Dispatch Center Level 1 (emergency) Generator
- Building 3047, Isotope Technology Building
- 3047-CT, Cooling Tower for 3047
- 3047-GEN, Emergency Generator for 3047
- 3047-TK, Diesel Fuel Storage Tank for 3047
- Building 3104, West Complex Maintenance Shop
- Building 3127 LGWO Documentation Management Storage
- Building 3129, Distributed Energy Communication and Control Annex for Building 3114
- 3154, Manhole 112 Monitoring Station
- 3155, Manholes 114 and 234 Monitoring Station
- 3163, West Weather Port
- 3164, East Weather Port

The desired outcome for the Central Stack East Hot Cell Facilities Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.18.1 Central Stack East Hot Cell – Characterization

C.3.1.18.2 Central Stack East Hot Cell – Preparation for Demolition

C.3.1.18.3 Central Stack East Hot Cell – Demolition

### *C.3.1.19 Experimental Gas-cooled Reactor Complex*

The Experimental Gas-cooled Reactor (EGCR) Complex includes the following facilities and structures:

- Building 7600, EGCR Containment Building
- Building 7609, EGCR Stack Monitoring
- Building 7610, Energy Systems Area Storage Building
- 7614, EGCR Exhaust Stack

The desired outcome for the EGCR Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.19.1 EGCR – Characterization

C.3.1.19.2 EGCR – Preparation for Demolition

C.3.1.19.3 EGCR – Demolition

### *C.3.1.20 Integrated Process Demonstration Facility*

The desired outcome for Building 7602, the Integrated Process Demonstration Facility, is a decontaminated facility prepared for re-use. This scope includes characterization, abatement of hazardous materials and radiological contamination, and stabilization to enable future re-use.

### *C.3.1.21 Molten Salt Reactor Experiment Complex*

The Molten Salt Reactor Experiment (MSRE) Complex includes the following facilities and structures:

- Building 7503, MSRE
- 7503A, Inactive LLLW Collection Tank
- 7503B, MSRE Septic Tank
- Building 7507, Substores
- Building 7507W, Storage Facility
- Building 7509, MSRE Office Building
- Facility 7511, Filter Pit for MSRE
- Facility 7512, Stack for MSRE
- Building 7514, Filter House for MSRE
- Building 7516, Field Service Shop
- Building 7555, Diesel Generator House for MSRE

The desired outcome for the MSRE Complex is for salt from Building 7503 to be removed and dispositioned and all facilities to be demolished with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.21.1 MSRE – Characterization

C.3.1.21.2 MSRE – Preparation for Demolition

C.3.1.21.3 MSRE – Demolition

### *C.3.1.22 Tower Shielding Facilities Complex*

The Tower Shielding Facilities Complex includes the following facilities and structures:

- Facility 7700, Four Tower Shielding Facility Towers
- Facility 7700A, Tower Shielding Facility Big Beam Shield and Reactor Turret
- Facility 7701, Tower Shielding Facility Pool
- Building 7702, Control House, Tower Shielding Facility
- Building 7703, Hoist House, Tower Shielding Facility
- Building 7704, Control House, Tower Shielding Facility

- Building 7705, Pump House, Tower Shielding Facility
- Building 7706, Heat Exchanger (Tower Shielding Facility Cooler)
- Building 7707, Battery House, Tower Shielding Facility
- Building 7708, Reactor Shield Storage, Tower Shielding Facility
- Facility 7716, Filter Pump House Main Pool
- Building 7720, Tower Shielding Civil Defense Bunker
- Facility 7760, Process Waste Collection Tank, Tower Shielding Facility

The desired outcome for the Tower Shielding Facilities Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.22.1 Tower Shielding – Characterization

C.3.1.22.2 Tower Shielding – Preparation for Demolition

C.3.1.22.3 Tower Shielding – Demolition

### *C.3.1.23 3544 Complex*

The 3544 Complex includes the following facilities and structures:

- Building 3544, Process Waste Water Treatment Plant
- Building 3544B, Filter Press Building
- Building 3518, Process Water Neutralization Plant
- Building 3594, Waste Management Storage Building

The desired outcome for the 3544 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.23.1 3544 – Characterization

C.3.1.23.2 3544 – Preparation for Demolition

C.3.1.23.3 3544 – Demolition

### *C.3.1.24 Melton Valley Reactors and Other Facilities Decision Documents*

The Melton Valley Reactors and Other Facilities include the following facilities and structures:

***Reactors:***

- Experimental Gas-cooled Reactor Complex
- Health Physics Research Reactor Complex
- Homogeneous Reactor Experiment Complex
- MSRE Complex

***Other facilities:***

- Hazardous Waste Materials Area
- Melton Valley LGWO Complex
- Solid Waste Storage Area (SWSA) 5 and 6 Complex
- Shielded Transfer Tanks
- Tower Shielding Facility Complex

- Transuranic Waste Processing Complex (TWPC)
- Waste Management Complex
- Integrated Process Demolition Facility (decontamination only)

The desired outcome for the Melton Valley Reactors and Other Facilities Decision Documents is to complete the ROD and Remedial Action Report.

### *C.3.1.25 Melton Valley MSRE Salt Remedial ROD Explanation of Significant Differences*

The Melton Valley MSRE Salt Remedial ROD Explanation of Significant Differences includes the following facilities:

- Building 7503

The desired outcome for the Melton Valley MSRE Salt Remedial ROD Explanation of Significant Differences is to obtain an approved ROD and explanation of significant differences.

### *C.3.1.26 Bethel Valley Groundwater ROD*

The desired outcome for the Bethel Valley Groundwater ROD is to obtain an approved ROD for the Bethel Valley Groundwater.

### *C.3.1.27 ORR Non-watershed Sites ROD*

The desired outcome for the ORR Non-watershed Sites ROD is to obtain an approved ROD for the ORR Non-watershed Sites.

### *C.3.1.28 Hot Storage Garden Demolition and Remedial Action*

The Hot Storage Garden includes the following facilities and structures:

- Building 3597, Hot Storage Garden

The desired outcome for the Hot Storage Garden is demolition of all facilities with footprints cleared and stabilized and completion of environmental media remediation. This cleanup will be accomplished through the following end states, as described in Section C.3.

C.3.1.28.1 Hot Storage Garden – Characterization

C.3.1.28.2 Hot Storage Garden – Preparation for Demolition

C.3.1.28.3 Hot Storage Garden – Demolition

C.3.1.28.4 Hot Storage Garden – Remedial Action

### *C.3.1.29 Melton Valley Waste Management Complex Demolition and Remedial Action*

The Melton Valley Waste Management Complex includes the following facilities and structures:

- Building 2660, Office Building
- Building 7572, Contact-handled (CH) TRU Waste Storage Facility
- Building 7574, Nuclear Fuel Services, Inc. Waste Storage Facility
- Building 7934, Controlled Storage Facility

The desired outcome for the Melton Valley Waste Management Complex is demolition of all facilities with footprints cleared and stabilized and completion of environmental media remediation. This cleanup will be accomplished through the following end states, as described in Section C.3.

C.3.1.29.1 Melton Valley Waste Management Complex – Characterization

C.3.1.29.2 Melton Valley Waste Management Complex – Preparation for Demolition

C.3.1.29.3 Melton Valley Waste Management Complex – Demolition

C.3.1.29.4 Melton Valley Waste Management Complex – Remedial Action

### *C.3.1.30 Shielded Transfer Tanks Disposition*

The Shielded Transfer Tanks include the following structures:

- Weather Shelter, open structure
- Shielded Transfer Tank ST1, 500 gallons
- Shielded Transfer Tank ST2, 500 gallons
- Shielded Transfer Tank ST3, 500 gallons
- Shielded Transfer Tank ST4, 500 gallons
- Shielded Transfer Tank ST5, 500 gallons

The desired outcome for the Shielded Transfer Tanks is removal and final disposition as described in Section C.3:

C.3.1.30.1 - Shielded Transfer Tanks Complex Characterization

C.3.1.30.2 - Shielded Transfer Tanks Complex Prep for Demolition

C.3.1.30.3 – Shielded Transfer Tanks Complex Demolition

### *C.3.1.31 TRU Waste Processing Complex Demolition and Remedial Action*

The TRU Waste Processing Complex includes the following structures:

- Building 7880, Waste Processing Facility
- 7880A, CH Staging Area
- 7880AA, Drum Venting Building
- 7880AB, Mock-up Training Building
- 7880AE, Instrumentation and Electrical Maintenance Shop
- 7880AC, Mobile In Situ Object Counting System
- 7880AD Limited Area 1
- 7880B Personnel Building
- 7880BB, CH Marshaling Building
- 7880B-TK, 7880B Above-ground Sewage Tank
- 7880CC, Project and General Management
- 7880D, Control Room
- 7880DD, Engineering
- 7880E, Boiler Room
- 7880EE, Restroom Facility
- 7880EE-TK, 7880EE Underground Sewage Tank
- 7880F, Air Compressor
- 7880G, Electrical Equipment Building
- 7880H, Backup Diesel Generator
- 7880HH, Macroencapsulation Building

- 7880II, Steel Carport Cover
- 7880JJ, Training Center
- 7880K, Limited Access Gate Trailer
- 7880KK, Operation and Safety Support
- 7880L, DOE Office Trailer
- 7880L-TK, Underground Sewage Tank
- 7881PP, Telecommunications Center
- 7880Q, Restroom Facility
- 7880QQ, Multipurpose Building
- 7880Q-TK, 7880Q Underground Sewage Tank
- 7880RR, Radcon Office
- 7880RR-TK, 7880R Underground Sewage Tank
- 7880S, Backup Air Compressor
- 7880TT, Inventory Control Office
- 7880WW, Diesel Generator
- 7880X, Box Breakdown Area Field Office
- 7880YY, Environmental Control Storage
- 7880Z-TK, 7880-TK Underground Sewage Tank

The desired outcome for the TRU Waste Processing Complex is demolition of all facilities with footprints cleared and stabilized, and completion of environmental media remediation. This cleanup will be accomplished through the following end states, as described in Section C.3.

C.3.1.31.1- TRU Waste Processing Complex Characterization

C.3.1.31.2 - TRU Waste Processing Complex Prep for Demolition

C.3.1.31.3 – TRU Waste Processing Complex Demolition

C.3.1.31.4 – TRU Waste Processing Complex Remedial Action

### *C.3.1.32 Bethel Valley Process Drain Diversion*

The following buildings have been identified as being connected to the process waste system in the 1000 and 3000 Areas and will receive new sanitary lines diverting the waste to the ORNL Sewage Treatment Plant.

***Area 1000:***

- Building 1503, Plant Sciences Lab
- Building 1504, Aquatic Ecology Laboratory
- Building 1505, Environmental Sciences Lab
- Building 1506, Controlled Environmental and Animal Building

***Area 3000:***

- Building 3025E, 3025E Irradiated Material Examination and Testing Hot Cell Facility
- Building 3137, Surface Science Lab
- Building 3525, High Radiation Level Examination Laboratory

The desired outcome is to complete installation of the new sanitary waste lines.

### *C.3.1.33 Bethel Valley Remedial Actions*

The Bethel Valley Remedial Actions include the following exposure units:

- Exposure Unit 1
- Exposure Unit 2
- Exposure Unit 3
- Exposure Unit 4
- Exposure Unit 5
- Exposure Unit 6
- Exposure Unit 7
- Exposure Unit 8
- Exposure Unit 9
- Raccoon Creek Stream Reach Exposure Unit
- First Creek Stream Reach Exposure Unit
- Northwest Tributary Stream Reach Exposure Unit
- Fifth Creek Stream Reach Exposure Unit
- White Oak Creek Stream Reach Exposure Unit
- West Bethel Valley Assessment Units 1-4
- West Bethel Valley Assessment Unit 5
- West Bethel Valley Assessment Units 7-8
- Central Bethel Valley Assessment Units 1-2
- Central Bethel Valley Assessment Units 3-6
- East Bethel Valley Assessment Units 1-2
- East Bethel Valley Assessment Units 3-6
- Other Tanks and Pipelines

The desired outcome for the Bethel Valley Sites Remedial Action is to complete environmental media remediation as described in Section C.3.

C.3.1.33.1 – Bethel Valley Sites Remedial Action

### *C.3.1.34 Bethel Valley Non-hydraulic Fracturing Well Plug and Abandon*

The Bethel Valley Non-Hydraulic Fracturing Well Plug and Abandon PWS includes 309 wells located throughout the Bethel Valley area.

The desired outcome is to complete the Plug and Abandon actions for the Bethel Valley Non-hydraulic Fracturing Wells.

### *C.3.1.35 ORR Non-watershed Sites Remedial Action*

The ORR Non-watershed Sites Remedial Actions include the following areas:

***At ORNL:***

- Central Chestnut Ridge Study Area
- Copper Ridge Study Area
- West Haw Ridge/Bearden Creek Watershed Study Area

- West Chestnut Ridge/West Bethel Valley
- Walker Branch Study Area
- High Flux Isotope Reactor Area

***At ETTP:***

- McKinney Ridge Study Area
- West Black Oak Ridge Study Area
- West Pine Ridge Study Area

The desired outcome for the ORR Non-watershed Sites Remedial Action is to complete environmental media remediation as described in Section C.3.

C.1.35.1 – ORR Non-watershed Sites Remedial Action

### *C.3.1.36 2007/2008 Complex Demolition*

The 2007/2008 Complex includes the following facilities and structures:

- Building 2003, Process Water Control Station
- Building 2007, Calibration Lab
- Building 2008, ORNL Whole Body Counter

The desired outcome for the 2007/2008 Complex is demolition of all facilities in the complex with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.36.1 2007/2008 – Characterization

C.3.1.36.2 2007/2008 – Preparation for Demolition

C.3.1.36.3 2007/2008 – Demolition

### *C.3.1.37 3025 Complex Demolition*

The 3025 Complex includes the following facilities and structures:

- Building 3025E, Irradiated Material Examination and Testing Hot Cell Facility
- Building 3025M, Solid State Office and Laboratory Building

The desired outcome for the 3025 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.37.1 3025 Complex – Characterization

C.3.1.37.2 3025 Complex – Preparation for Demolition

C.3.1.37.3 3025 Complex – Demolition

### *C.3.1.38 3525 Complex Demolition*

The 3525 Complex includes the following facilities and structures:

- Building 3525, High-Rad Level Examination Laboratory
- Building 3602, Cylinder Tank Storage for Building 3525
- Building 3607, Cask Tool Storage

The desired outcome for the 3525 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.38.1 3525 Complex – Characterization

C.3.1.38.2 3525 Complex – Preparation for Demolition

C.3.1.38.3 3525 Complex – Demolition

### *C.3.1.39 4501/4505 Complex Demolition*

The 4501/4505 Complex includes the following facilities and structures:

- Building 4500N, Central Research and Administrative North
- Building 4500S, Central Research and Administrative South
- Building 4510, Radiochemistry Lab
- Building 4505, Experimental Engineering

The desired outcome for the 4501/4505 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.39.1 4501/4505 Complex – Characterization

C.3.1.39.2 4501/4505 Complex – Preparation for Demolition

C.3.1.39.3 4501/4505 Complex – Demolition

### *C.3.1.40 5505 Demolition*

The 5505 facility includes the following building:

- Building 5505, Transuranium Research Lab

The desired outcome for the 5505 facility is demolition of Building 5505 with the footprint cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.40.1 5505 Facility – Characterization

C.3.1.40.2 5505 Facility – Preparation for Demolition

C.3.1.40.3 5505 Facility – Demolition

### *C.3.1.41 6010/7019 Complex Demolition*

The 6010/7019 Complex includes the following facilities and structures:

- Building 6010, Oak Ridge Electron Linear Accelerator
- Building 7019, Research Reactors Division Warehouse Facility - Category C Storage

The desired outcome for the 6010/7019 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.41.1 6010/7019 Complex – Characterization

C.3.1.41.2 6010/7019 Complex – Preparation for Demolition

C.3.1.41.3 6010/7019 Complex – Demolition

### *C.3.1.42 Fire Station Complex Demolition*

The Fire Station Complex Demolition includes the following facilities and structures:

- Building 2500, Guard and Fire Headquarters
- Building 2518, Support Services Building
- Building 2523, Decontamination Laundry
- Building 2523A, Decontamination Laundry Annex
- Building 2621, Electrical Utilities Shop
- Building 2628, Fire Protection Maintenance Storage

The desired outcome for the Fire Station Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.42.1 Fire Station Complex – Characterization

C.3.1.42.2 Fire Station Complex – Preparation for Demolition

C.3.1.42.3 Fire Station Complex – Demolition

### *C.3.1.43 Health Physics Research Reactor Complex Demolition*

The Health Physics Research Reactor Complex includes the following facilities and structures:

- Building 7709, Health Physics Research Reactor
- Building 7710, Dosimetry Applications Research Facility
- Building 7712, Dosimetry Applications Research Low Energy Accelerator
- Building 7735, Radiation Calibration Laboratory
- Building 7758, High Flux Isotope Reactor Parts Storage

The desired outcome for the Health Physics Research Reactor Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.43.1 Health Physics Research Reactor Complex – Characterization

C.3.1.43.2 Health Physics Research Reactor Complex – Preparation for Demolition

C.3.1.43.3 Health Physics Research Reactor Complex – Demolition

### *C.3.1.44 Southeast Contaminated Labs Complex Demolition*

The Southeast Contaminated Labs Complex includes the following facilities and structures:

- Building 3523, Electronic Fabrication Shop
- Building 3613, Diversion Box Monitoring Station 3
- Building 3615, Manhole 235 Monitoring Station 5
- Building 3616, Manhole 149 Monitoring Station 6
- Building 3617, Manhole 229 Monitoring Station 7

The desired outcome for the Southeast Contaminated Labs Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.44.1 Southeast Contaminated Labs Complex – Characterization

C.3.1.44.2 Southeast Contaminated Labs Complex – Preparation for Demolition

C.3.1.44.3 Southeast Contaminated Labs Complex – Demolition

### *C.3.1.45 Southeast Services Complex Demolition*

The Southeast Services Complex includes the following facilities and structures:

- Building 3501, Sewage Pumping Station
- Building 3502, East Research Service Center
- Building 3502B, Data Concentrator 4 Waste Operations Control Center Data Acquisition System 3502
- Building 3587, Mail Services Building
- Building 3610, Storage Building
- Building 3614, Manhole 190 Monitoring Station
- Building 3618, WC-10 Tank Farm Pumping Station
- Building 3621, Tent, Spill Response Vehicle Shelter

The desired outcome for the Southeast Services Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.1.45.1 Southeast Services Complex – Characterization

C.3.1.45.2 Southeast Services Complex – Preparation for Demolition

C.3.1.45.3 Southeast Services Complex – Demolition

### *C.3.1.46 Bethel Valley Tank Upgrades*

The Bethel Valley Tank Upgrades include the following facilities:

- Building, 2531 LLLW Evaporator Building
- Building, 2537 Evaporator Service Tank and Control Room for 2531

The desired outcome for the Bethel Valley Tank Upgrades is the removal and replacement of the Fluidic Pulse Jet mobilization and transfer system.

### *C.3.1.47 Melton Valley Trench 13 Remedial Action*

The desired outcome for the Melton Valley Trench 13 Remedial Action is to complete environmental media remediation as described in Section C.3.

C.3.1.47.1 Melton Valley Trench 13 Remedial Action

## C.3.2 Y-12 Cleanup

As authorized by Task Order, the Contractor shall perform cleanup (characterization, preparation for demolition, demolition, and environmental media remediation), including but not limited to the Y-12 facilities, complexes, and areas listed below. Cleanup shall be performed in accordance with the following regulatory documents, as applicable, and may be modified by subsequent regulatory agreements or requirements:

- *Action Memorandum for the Y-12 Facilities Non-Time-Critical Removal Action Deactivation/Demolition Project, Oak Ridge, Tennessee* (DOE/OR/01-2462&D2)

- Record of Decision for Phase I Interim Source Control Actions in the Upper East Fork Poplar Creek Characterization Area, Oak Ridge, Tennessee (DOE/OR/01-1951&D3)
- Record of Decision for Phase II Interim Remedial Actions for Contaminated Soils and Scrapyard in Upper East Fork Poplar Creek, Oak Ridge, Tennessee (DOE/OR/01-2229&D3)

For additional details, refer to Table 2 of Attachment C-1, *Facility and Site List*.

### *C.3.2.1 Biology Complex*

The Biology Complex includes the following facilities and structures:

- Building 9207, Biology
- Building 9207-A, Office Annex
- Building 9210, Mammalian Genetics
- Buildings 9767-06 and 9767-07, Utilities

The desired outcome for the Biology Complex is demolition of all facilities with the footprint for the complex remediated for future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.1.1 Biology – Characterization

C.3.2.1.2 Biology – Preparation for Demolition

C.3.2.1.3 Biology – Demolition

### *C.3.2.2 Beta 4 (9204-4) Complex*

The Beta 4 (9204-4) Complex is part of the Y-12 former mercury use facilities and includes the following facilities and structures:

- Building 9204-04, Production (Beta 4)
- Building 9501-09, Transformer Vault
- Buildings 9802-01 and 9802-02, Steam Stations at Beta 4
- Building 9811-01, Storage
- Building 9811-04, Tanker Transfer Station

The desired outcome for the Beta 4 (9204-4) Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.2.1 Beta 4 – Characterization

C.3.2.2.2 Beta 4 – Preparation for Demolition

C.3.2.2.3 Beta 4 – Demolition

### *C.3.2.3 Alpha 5 (9201-5) Complex*

The Alpha 5 (9201-5) Complex is part of the Y-12 former mercury use facilities and includes the following facilities and structures:

- Building 9201-05, Production Alpha 5
- Building 9404-18, Demineralizer Facility
- Building 9404-20, Laborer Facility
- Building 9422-13, Storage

- Building 9422-15, Storage
- Building 9622, Warehouse and Industrial
- Building 9976, Utilities
- Building 9983-HF, Decontamination Shower Facility

The desired outcome for the Alpha 5 (9201-5) Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.3.1 Alpha 5 – Characterization

C.3.2.3.2 Alpha 5 – Preparation for Demolition

C.3.2.3.3 Alpha 5 – Demolition

The following buildings **are not** part of the Alpha 5 Complex scope: Building Alpha 5 North and West; Building 9404-13, Pumphouse; Building 9409-13, Cooling Tower; Building 9416-14, Utilities; Building 9416-31, Fire Protection Valve House; Building 9422-16, Storm Drain Monitoring; and Building 9767-13, Chiller Building. These facilities will be retained by the Y-12 Site for operational purposes.

The Contractor shall coordinate closely with the Y-12 M&O contractor to ensure appropriate measures are taken to protect worker health and safety during preparation for demolition and demolition (e.g., requesting the M&O contractor temporarily vacate the facilities), and shall take the necessary actions to protect the structural integrity of Alpha 5 Complex facilities to be retained by the M&O contractor.

The Alpha 5 Complex is currently the utility hub for steam, electricity, and communications (including secured data lines) for the west end of the Y-12 Site. The Contractor shall coordinate timely relocation of these utilities by NNSA and its Y-12 M&O contractor.

### *C.3.2.4 Alpha 4 (9201-4) Complex*

The Alpha 4 (9201-4) Complex is part of the Y-12 former mercury use facilities and includes the following facilities and structures:

- Building 9201-04, Alpha 4 (including East and South Column Exchange, or COLEX, Process Equipment)
- Building 9501-05, Transfer Stations #699 and #674
- Building 9804, Valve House for 9201-04

The desired outcome for the Alpha 4 (9201-4) Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.4.1 Alpha 4 – Characterization

C.3.2.4.2 Alpha 4 – Preparation for Demolition

C.3.2.4.3 Alpha 4 – Demolition

### *C.3.2.5 Alpha 2 (9201-2) Complex*

The Alpha 2 (9201-2) Complex is part of the Y-12 former mercury use facilities and includes the following facilities and structures:

- Building 9201-02, Fusion Energy Building
- Building 9501-02, Primary Electric Substation #599

- Building 9732-02, Storage Building

The desired outcome for the Alpha 2 (9201-2) Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.5.1 Alpha 2 – Characterization

C.3.2.5.2 Alpha 2 – Preparation for Demolition

C.3.2.5.3 Alpha 2 – Demolition

### *C.3.2.6 Alpha 3 (9201-3) Complex*

The Alpha 3 (9201-3) Complex includes the following facilities and structures:

- Building 9201-3, Maintenance Facility
- Building 9732-3, Painter Facility
- Building 9999-3, Demineralizer Facility

The desired outcome for the Alpha 3 (9201-3) Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.6.1 Alpha 3 – Characterization

C.3.2.6.2 Alpha 3 – Preparation for Demolition

C.3.2.6.3 Alpha 3 – Demolition

### *C.3.2.7 Beta 1 (9204-1) Complex*

The Beta 1 (9204-1) Complex includes the following facilities and structures:

- Building 9204-1, Fusion Energy - Eng. Tech.
- Building 9422, Helium Compressor Building
- Building 9501-04, Prime Substation #824

The desired outcome for the Beta 1 (9204-1) Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.7.1 Beta 1 – Characterization

C.3.2.7.2 Beta 1 – Preparation for Demolition

C.3.2.7.3 Beta 1 – Demolition

### *C.3.2.8 9206 Complex*

The 9206 Complex includes the following facilities and structures:

- Building 9206, Production
- Building 9206, Tank Farm
- Building 9768, Utilities
- Building 9720-17, Warehouse and Industrial Building

The desired outcome for the 9206 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.8.1 9206 – Characterization

C.3.2.8.2 9206 – Preparation for Demolition

C.3.2.8.3 9206 – Demolition

### *C.3.2.9 9213 Complex*

The 9213 Complex includes the following facilities and structures:

- Building 9213, Development and Offices
- Building 9703-14, Former Post-3 South Portal
- 9999-02, Motor Generator (9213 Area)

The desired outcome for the 9213 Complex is completion of preparation for demolition of all facilities. This cleanup will be accomplished through the following end states, as described in Section C.3:

- C.3.2.9.1 9213 – Characterization
- C.3.2.9.2 9213 – Preparation for Demolition

### *C.3.2.10 9401-2 Facility*

The 9401-2 Facility includes the following facilities and structures:

- Building 9401-2, Plating Shop and Maintenance

The desired outcome for the 9401-2 Facility is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.10.1 9401-2 – Characterization

C.3.2.10.2 9401-2 – Preparation for Demolition

C.3.2.10.3 9401-2 – Demolition

### *C.3.2.11 Reserved*

### *C.3.2.12 Reserved*

### *C.3.2.13 Steam Plant Complex*

The Steam Plant Complex includes the following facilities and structures:

- Building 9401-03, Old Coal Fired Steam Plant
- Building 9616-09, Steam Plant Wastewater Facility
- Building 9616-10, Bulk Sulfuric Unload Station
- Building 9811-06, Dry Ash Handling Facility
- Building 9811-07, Ash Handling Facility
- Building 9990-03, Coal Sampling Building

The desired outcome for the Steam Plant Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.13.1 Steam Plant – Characterization

C.3.2.13.2 Steam Plant – Preparation for Demolition

C.3.2.13.3 Steam Plant – Demolition

### *C.3.2.14 Tank Facilities Complex*

The Tank Facilities Complex includes the following facilities and structures:

- Building 9720-44, Shed–Sludge Handling Facility
- Building 9720-45, Liquid Organic Waste Facility
- Building 9809-01, Waste Storage
- Building 9825-01, Waste Storage
- Building 9825-02, Waste Storage
- OD-7, Building 9811-1 RCRA Tank Storage Area
- OD-9, Waste Oil/Solvent Storage Area

The desired outcome for the Tank Facilities Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.14.1 Tank Facilities – Characterization

C.3.2.14.2 Tank Facilities – Preparation for Demolition

C.3.2.14.3 Tank Facilities – Demolition

### *C.3.2.15 Upper East Fork Poplar Creek 81-10 Area Remedial Action*

The desired outcome for the Upper East Fork Poplar Creek 81-10 Area is to complete environmental media remediation as described in Section C.3.

C.3.2.15.1 Upper East Fork Poplar Creek 81-10 Area – Remedial Action

### *C.3.2.16 Y-12 Exposure Unit 5*

The desired outcome for the Y-12 Exposure Unit 5 is to complete environmental media remediation as described in Section C.3.

C.3.2.16.1 Y-12 Exposure Unit 5 – Remedial Action

### *C.3.2.17 9401-1 Facility*

The desired outcome is demolition of the 9401-1 Facility with a footprint cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.17.1 9401-1 Facility – Characterization

C.3.2.17.2 9401-1 Facility – Preparation for Demolition

C.3.2.17.3 9401-1 Facility – Demolition

### *C.3.2.18 Nickel Disposition*

The desired outcome is final offsite disposition of the nickel inventory stored at the Y9830 Above-ground Storage Facility adjacent to the Environmental Waste Management Facility (EMWMF).

### *C.3.2.19 Bear Creek Valley Burial Ground ROD*

The desired outcome is for an approved ROD for the Bear Creek Valley Burial Ground.

### *C.3.2.20 Bear Creek Valley Groundwater ROD*

The desired outcome is for an approved ROD for the Bear Creek Valley Groundwater.

### *C.3.2.21 Bear Creek Valley Burial Grounds Remedial Action*

The desired outcome for the Bear Creek Valley Burial Grounds Remedial Action is to complete environmental media remediation as described in Section C.3.

C.3.2.21.1 Bear Creek Valley Burial Grounds – Remedial Action

### *C.3.2.22 Bear Creek Valley S-3 Ponds Remedial Action*

The desired outcome for the Bear Creek Valley S-3 Ponds Remedial Action is to complete environmental media remediation as described in Section C.3.

C.3.2.22.1 Bear Creek Valley S-3 Ponds – Remedial Action

### *C.3.2.23 Bear Creek Valley White Wing Scrap Yard Remedial Action*

The desired outcome for the Bear Creek Valley White Wing Scrap Yard Remedial Action is to complete environmental media remediation as described in Section C.3.

C.3.2.23.1 Bear Creek Valley White Wing Scrap Yard – Remedial Action

### *C.3.2.24 Bear Creek Valley White Wing Scrap Yard ROD*

The desired outcome is for an approved ROD for the Bear Creek Valley White Wing Scrap Yard.

### *C.3.2.25 Chestnut Ridge ROD*

The desired outcome is to complete the Chestnut Ridge ROD.

### *C.3.2.26 Upper East Fork Poplar Creek Soils Remedial Action*

The desired outcome for the Upper East Fork Poplar Creek Soils is to complete environmental media remediation as described in Section C.3.

C.3.2.26.1 Upper East Fork Poplar Creek Soils – Remedial Action

### *C.3.2.27 Bear Creek Valley NT-8 Action Memo and Removal Action*

The desired outcome is to complete the Bear Creek Valley NT-8 Action Memo and Remedial Action.

C.3.2.27.1 Bear Creek Valley NT-8 – Remedial Action

### *C.3.2.28 Chestnut Ridge Remedial Action*

The desired outcome for the Chestnut Ridge Remedial Action is to complete environmental media remediation as described in Section C.3.

C.3.2.28.1 Chestnut Ridge – Remedial Action

### *C.3.2.29 9212 Complex Demolition*

The 9212 Complex includes the following facilities and structures:

- Building 9212, Production
- Building 9409-22, Cooling Tower, 9212
- Building 9409-22E, Cooling Tower, 9212
- Building 9409-23, Cooling Tower, 9212
- Building 9409-24, Cooling Tower, 9212/9215
- Building 9416-12, Utilities, 9416-12
- Building 9416-28, Fire Protection Valve House (-22 Tower)
- Building 9416-32, Water Treatment and Valve House
- Building 9416-46, Valve House North of 9423
- Building 9423, Material Storage Warehouse
- Building 9721, Office Trailer
- Building 9723-25, Changehouse/Offices
- Building 9767-10, Chiller Building
- Building 9811-09, Transfer Station 9811-9
- Building 9812, Tank Pit
- Building 9815, Nitrate Facility
- Building 9818, Acid Waste Neutralization
- Building 9820, Electrical Storage
- Building 9828-01, Bag Filter System
- Building 9828-02, Probe House
- Building 9828-03, Bag Filter House
- Building 9959-01, Storage
- Building 9980, Process Building
- Building 9981, Physical Testing, X-Ray
- Building 9996, Depleted Uranium Binary
- Building 9999, Motor Generator

The desired outcome for the 9212 Complex is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.29.1 9212 Complex – Characterization

C.3.2.29.2 9212 Complex – Preparation for Demolition

C.3.2.29.3 9212 Complex – Demolition

### *C.3.2.30 Y-12 Balance of Facilities*

The Y-12 Balance of Facilities includes the following facilities and structures:

- Building 9424-01, Foam House for OD-09
- Building 9424-02, Foam House for OD-10

- Building 9703-14, Post 3 - South Portal (9213 Area)
- Building 9840-04, Drum Cleaning Station
- Building 9983-FX, FRC Field Support Trailer
- Building 9999-02, Motor Generator

The desired outcome for the Y-12 Balance of Facilities is demolition of all facilities with footprints cleared, stabilized, and prepared for subsequent environmental media remediation or future use. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.2.30.1 Y-12 Balance of Facilities – Characterization

C.3.2.30.2 Y-12 Balance of Facilities – Preparation for Demolition

C.3.2.30.3 Y-12 Balance of Facilities – Demolition

## C.3.3 ETTP Cleanup

As authorized by Task Order, the Contractor shall perform cleanup at the ETTP, including but not limited to, the structures and areas listed below. Cleanup performed shall be in accordance with the following regulatory documents, as applicable, and may be modified by subsequent regulatory agreements or requirements:

- *Action Memorandum for the Remaining Facilities Demolition Project at East Tennessee Technology Park, Oak Ridge, Tennessee* (DOE/OR/01-2049&D2)
- *Record of Decision for Interim Actions in Zone 1, East Tennessee Technology Park, Oak Ridge, Tennessee* (DOE/OR/01-1997&D2)
- *Record of Decision for Soil, Buried Waste and Subsurface Structure Actions in Zone 2, East Tennessee Technology Park, Oak Ridge, Tennessee* (DOE/OR/01-2161&D2)
- *Explanation of Significant Differences for the ROD for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Waste, Oak Ridge, Tennessee* (DOE/OR/01-2194&D2)

For additional details, refer to Table 3 of Attachment C-1, *Facility and Site List*.

### *C.3.3.1 Zone 1 Soil*

The desired outcome is completion of ETTP Zone 1 soil environmental media remediation as described in Section C.3.

The Contractor shall complete the soil remedial actions and required regulatory completion documentation associated with the *Record of Decision for Interim Actions in Zone 1, East Tennessee Technology Park, Oak Ridge, Tennessee* (ETTP Zone 1 Final Soils ROD) (DOE/OR/01-1997&D2), including the Remedial Action Report after the final cleanup action is complete.

The Contractor shall prepare the Proposed Plan and ROD for final regulatory decisions for ETTP Zone 1 soils. The Contractor shall complete the soil remedial actions and required regulatory completion documentation in accordance with the ETTP Zone 1 Final Soils ROD.

### *C.3.3.2 Zone 2 Soil*

The desired outcome is completion of ETTP Zone 2 Soil environmental media remediation as described in Section C.3.

Upon the completion of all Zone 2 remedial actions, the Contractor shall prepare the FFA Remedial Action Report summarizing phased construction completion reports that address the scope completed as a

result of the *Record of Decision for Soil, Buried Waste and Subsurface Structure Actions in Zone 2, East Tennessee Technology Park, Oak Ridge, Tennessee* (DOE/OR/01-2161&D2).

The Contractor shall complete the soil remedial actions and required regulatory completion documentation associated with the following Zone 2 areas:

C.3.3.2.1 Zone 2 Southeast Area Exposure Units

C.3.3.2.2 Zone 2 North-by-Northwest Area Exposure Units

C.3.3.2.3 Zone 2 K-25 Area Trichloroethylene Plume

C.3.3.2.4 Zone 2 Balance of K-25 Area Exposure Units

### *C.3.3.3 Groundwater and Surface Water*

The desired outcomes are approved RODs that define ETTP groundwater and surface water remediation and completion of environmental media remediation as described in Section C.3.

The Contractor shall prepare the ETTP Main Plant Area Groundwater Proposed Plan and ROD for approval, utilizing the results of the groundwater treatability study, as applicable. The Contractor shall prepare the Proposed Plans and RODs for the balance of ETTP groundwater and surface water, as negotiated with the FFA parties.

The Contractor shall complete the groundwater and surface water remedial actions and required regulatory completion documentation in accordance with the approved RODs.

C.3.3.3.1 ETTP Proposed Plan and ROD Development

C.3.3.3.2 ETTP Main Plant Area Groundwater Remediation

### *C.3.3.4 Haul Road and Bridge Removal*

The Contractor shall remediate the Haul Road and two bridges (over Highways 58 and 95) between ETTP Portal 5 and the EMWMF. The desired outcome for the Haul Road and Bridge Removal is removal of the bridges and remediation of the Haul Road. This cleanup will be accomplished through the following end states, as described in Section C.3:

C.3.3.4.1 Haul Road and Bridge – Characterization

C.3.3.4.2 Haul Road and Bridge – Preparation for Demolition

C.3.3.4.3 Haul Road and Bridge – Demolition

C.3.3.4.4 Haul Road and Bridge – Environmental Media Remediation

## C.4 CERCLA Disposal Facility Construction (Y-12)

The desired outcome is completed design, construction, and startup of the new onsite CERCLA disposal facility (the EMDF) to support uninterrupted cleanup activities on the ORR.

The EMDF is planned to have a capacity of approximately 2.2 million cubic yards and is planned to be constructed in three phases, as capacity is needed, with each phase encompassing approximately one-third of the total capacity.

The Contractor shall provide documentation and support reviews necessary for DOE to obtain a Disposal Authorization Statement for EMDF per DOE Manual 435.1-1 requirements.

### C.4.1 CERCLA Disposal Facility Design

As authorized by Task Order, the Contractor shall complete the design for the EMDF. The Contractor shall meet the requirements of DOE O 413.3, including design reviews and documentation to support attainment of CD-2/3, Approve Performance Baseline/Approve Start of Construction.

### C.4.2 CERCLA Disposal Facility Construction

As authorized by Task Order, the Contractor shall perform construction activities for the EMDF. Construction shall be performed in a manner that ensures continuous waste disposal operations, stakeholder acceptance, and timely regulatory approvals. Construction activities shall also be performed in accordance with regulatory requirements, DOE Order 413.3, and the design.

### C.4.3 CERCLA Disposal Facility Startup

As authorized by Task Order, the Contractor shall perform startup activities for the EMDF. Startup shall be performed in a manner that ensures continuous waste disposal operations, stakeholder acceptance, and timely regulatory approvals. Startup activities shall also be performed in accordance with regulatory requirements and DOE Order 413.3, including documentation for CD-4, Approve Start of Operations.

## C.5 Mission Support Activities

### C.5.1 Liquid and Gaseous Waste Operations and Life Extension (ORNL)

#### *C.5.1.1 Liquid and Gaseous Waste Operations*

The desired outcome is safe, reliable, and compliant operation of the ORNL LGWO system for the collection, transfer, storage, treatment, and disposal of LLLW, process wastewater, and gaseous waste generated by DOE-authorized activities.

As authorized by Task Order, the Contractor shall perform facility management (see Table 4 of Attachment C-1, *Facility and Site List*), operation, maintenance, monitoring, waste management, and preparation of required documentation. The Contractor shall plan, manage, and execute maintenance activities in a proactive and strategic manner that minimizes long-term risks and ensures reliable operation of essential systems and facilities. The Contractor shall also implement material actions to reduce the existing facility maintenance backlog and minimize future backlog. The Contractor shall be knowledgeable of all facility hazards and conditions. The treatment systems primarily serve activities at ORNL; however, other DOE sites and projects (e.g., EMWMF) may use the services of the liquid waste operations through tanker transfers. The Contractor shall coordinate operational plans with the ORNL M&O contractor and other users, as needed.

#### *C.5.1.2 LGWO Infrastructure and Life Extension*

The desired outcome is completion of identified necessary life extension repairs and upgrades to ensure long-term reliability of LGWO.

In addition to routine operations and maintenance (described in Section C.5.1.1), LGWO is undergoing life extension repairs and upgrades in response to an engineering evaluation performed in 2016 (*Liquid and Gaseous Waste Operations Engineering Evaluation and Extended Life Study* [STJ-02LGWO-D706]). The Contractor shall implement the following recommendations from the report as authorized by Task Order:

- Conduct decommissioning and implement cold stand-by for Building 3544 operations.
- Perform inspection and replacement of piping and pumping systems (above-ground and below-ground).

- Evaluate and clean and reseal diked areas around LGWO systems.
- Evaluate new technologies that could enhance treatment and reduce operations and maintenance costs in the process waste and LLLW systems.
- Implement source reduction recommendations for the LLLW system (e.g., potential elimination of LLLW feeds from 3517, 3092 scrubber).
- Complete the cleanout of contaminated debris from Building 7877, located adjacent to the Melton Valley Storage Tanks.

## C.5.2 Transuranic Waste Debris Storage and Shipment Support (ORNL)

### *C.5.2.1 TRU Facility Operations and Maintenance*

The desired outcome is safe storage of the TRU waste inventory until disposal at WIPP.

As authorized by Task Order, the Contractor shall provide safe, compliant, and cost-effective storage of solid contact-handled (CH) and remote-handled (RH) TRU waste in RCRA-permitted storage facilities located at ORNL and at the TWPC, and shall facilitate long-term cost reduction by closing each storage facility as inventory is removed. The Contractor shall accept CH and/or RH TRU waste from other EM sites or facilities for storage and/or disposal as directed by DOE.

The remaining TRU waste inventory at ORNL and the TWPC is stored primarily in the following facilities:

- 7572 and 7574 CH-TRU Waste Storage Facilities
- 7826 and 7834 Below-grade TRU Waste Storage Cells
- 7855 RH-TRU Cask Bunker
- 7860A RH-TRU Rubb Tent
- 7879 CH-TRU/LLW Staging Storage Facility
- 7883 RH-TRU Cask Bunker
- 7823, 7823B, 7823C, 7823D, and 7823E Waste Storage Facilities
- 7824 and 7826 Waste Storage Facilities
- Portable Unit
- CT8-7800 Waste Storage Pad
- 7827 and 7829 RH LLW Storage Wells
- 7822K Radioactive Waste Storage Pad
- TWPC Buildings: 7880, 7880A, 7880BB, and 7880QQ

The Contractor shall perform CH and/or RH TRU waste transfers and movement, and shall maintain this capability to retrieve waste from accessible ORNL storage facilities and deliver it to the TWPC as required for storage and/or shipment. All transportation activities shall be in compliance with transportation requirements in the Transportation Documented Safety Analysis and applicable regulations. The Contractor shall receive and store newly generated TRU waste from the DOE Office of Science. Upon the Contractor’s completion of legacy TRU waste shipments, the ORNL TRU waste storage facilities (containing the stored newly generated waste) will be transferred from OREM to the DOE Office of Science.

The Contractor shall work with the TWPC incumbent contractor to establish a 45-day transition period to assume responsibility for the TWPC upon completion of the incumbent’s contract. Upon transfer of the

TWPC, the Contractor shall operate and maintain the TWPC to ensure safe interim storage of the remaining CH-TRU inventory and shall perform all activities necessary to support completion of shipments to the WIPP in accordance with applicable requirements. The Contractor shall serve as the shipper of record for TRU waste shipped for disposal. The Contractor shall coordinate with the Carlsbad Field Office and WIPP for waste transportation, and shall participate in the National TRU Program's corporate board meetings.

#### *C.5.2.2 TRU Shipment Support*

The desired outcome is shipment of the CH-TRU and RH-TRU waste inventory to WIPP.

As authorized by Task Order, the Contractor shall perform shipment support activities including but not limited to the following:

- Perform CH-TRU drum movement as needed to support management of materials-at-risk.
- Operate TWPC facility equipment while supporting the WIPP Central Characterization Program for loading and shipment of previously packaged and certified CH-TRU inventory in accordance with the Carlsbad Field Office shipping schedule.
- Operate TWPC facility equipment while supporting the WIPP Central Characterization Program in loading RH-TRU removable lid canisters from RH overpacks into RH-72B casks for shipment in accordance with the Carlsbad Field Office shipping schedule.
- Dispose of RH overpacks and empty concrete overpacks as needed.
- Upon completion of TRU waste shipments, the Contractor shall maintain the TWPC Buildings (7880, 7880A, 7880BB, 7880QQ, and others as directed) in warm standby and integrate them into the Contractor's ORNL surveillance and maintenance (S&M) program (see Section C.5.3.1).

#### *C.5.2.3 TRU Sludge Processing Facility Operations*

The TRU Sludge Processing Facility Operations will include activities necessary to complete the TRU sludge solidification campaign including waste certifications and transportation to the Nevada National Security Site disposal site.

### C.5.3 ORNL Surveillance and Maintenance of EM Facilities and Sites and Environmental Monitoring

#### *C.5.3.1 ORNL Surveillance and Maintenance*

The desired outcome is the ORNL EM excess contaminated facilities maintained in a safe configuration until demolition and/or remediation is complete.

As authorized by Task Order, the Contractor shall perform S&M of EM-owned ORNL facilities and sites (see Table 4 of Attachment C-1, *Facility and Site List*), using a graded approach to ensure a safe and stable condition is maintained pending facility demolition and/or site remediation, in accordance with applicable safety, regulatory (i.e., site studies and/or characterization), and security requirements through the Contract period, or until the facilities or sites are dispositioned. The Contractor shall plan, manage, and execute S&M activities in a proactive and strategic manner that minimizes long-term risks and ensures reliable operation of essential systems and facilities.

The Contractor shall provide all necessary S&M activities, which include but are not limited to scheduled site inspections for status of equipment, structures, and safety parameters; hazard identification and control; radiological surveys; facility access and security control; vegetation control; monitoring and repair of landfill caps; fence and gate repairs; subsidence repair; erosion control and repair; waste and debris pickup and disposal; snow removal; roof repair and maintenance; filter testing and replacement;

instrument calibration and maintenance; and heating, ventilation, and air conditioning and other building systems (e.g., fire protection) maintenance. The Contractor shall proactively implement material actions to reduce the existing facility maintenance backlog and minimize future backlog. In addition, the Contractor shall characterize and dispose of all wastes generated from S&M activities. The Contractor shall ensure current knowledge and proper management of all facility hazards and conditions. Cleanup actions shall be considered as a viable alternative to continued S&M where appropriate.

The Contractor shall conduct required S&M in compliance with laws, regulations, permits, agreements, DOE Orders, and decision documents. These activities shall ensure that each post-remediation site or facility remains in a safe and stable condition, that monitoring and safety-related systems and equipment remain operable, that site security and access controls are continuously provided, that structural integrity is maintained, and that the requirements of applicable CERCLA decisions are followed.

In addition to the facilities currently included in the ORNL S&M Program, the Building 3019 and Building 2026 complexes may become part of this Contract's S&M scope after the incumbent contractor completes uranium-233 processing activities. When directed by DOE, the Contractor shall work with the Uranium-233 Disposition Project contractor to establish a 45-day transition period in order to assume responsibility for S&M upon completion of the incumbent's contract.

### *C.5.3.2 ORNL Environmental Monitoring*

The desired outcome is the compliant performance of required ORNL environmental monitoring and submittal of ORNL information for environmental monitoring reports as discussed in Section C.5.4.2.

As authorized by Task Order, the Contractor shall conduct required environmental monitoring and reporting for remediated sites in compliance with laws, regulations, permits, agreements, DOE Orders, and decision documents. The Contractor shall implement the requirements of the *Bethel Valley Administrative Watershed Remedial Action Report Comprehensive Monitoring Plan* (DOE/OR/01-2478) and *Melton Valley Monitoring Plan* (DOE/OR/01-1982&D1/R1), which summarize the performance and baseline environmental media monitoring and engineering controls, land use controls, and land use control verification requirements of the RODs associated with ORNL. The Comprehensive Monitoring Plan shall be revised as necessary to include the requirements identified in approved completion reports and in future RODs.

The Contractor shall monitor all sediment, surface water, and groundwater as required to model contaminant transport, determine remedial effectiveness, and evaluate and determine exit pathways. The Contractor shall also provide the necessary monitoring to ensure effectiveness is maintained following remedial actions. The Contractor shall evaluate monitoring data, provide statements and certifications as to the effectiveness of remedial actions and implementation of land use controls, and provide necessary reports on such findings. The Contractor shall perform environmental monitoring to verify the effectiveness of remedial actions and the protection of ecological receptors, and to support future decision-making.

Air, surface water, and groundwater shall be monitored as appropriate to verify compliance with applicable or relevant and appropriate requirements (ARARs) and to verify offsite contaminant releases are at acceptable levels. Post-remediation radiation surveys and sampling (including sampling for radionuclides and non-radionuclides such as metals, organics, and polychlorinated biphenyls [PCBs]) shall be performed to ensure that remedial actions are protective of human health and the environment.

The Contractor shall also conduct environmental monitoring and reporting in support of emergency response activities.

#### *C.5.3.3 Molten Salt Reactor Experiment Enhanced Maintenance*

The desired outcome is the completion of necessary life extension repairs and upgrades to reduce risks and maintain the MSRE facility in a safe state until decontamination and demolition.

In addition to routine S&M (described in Section C.5.3.1), the MSRE is undergoing life extension repairs and upgrades in response to, and consistent with, the engineering evaluation *Molten Salt Reactor Experiment Engineering Evaluation and Extended Life Study* (STJ-02MSRE-D992) performed in 2016. The Contractor shall implement the following recommendations from the report as authorized by Task Order:

(a) Complete upgrades to provide continuous ventilation of the tanks, eliminating the need for periodic pump down to remove hazardous gases.

(b) Complete upgrade of electrical systems for critical components and shut down non-critical systems.

### C.5.4 Y-12 Surveillance and Maintenance of EM Facilities and Sites and Environmental Monitoring

#### *C.5.4.1 Y-12 Surveillance and Maintenance*

The desired outcome is the Y-12 EM excess contaminated facilities maintained in a safe configuration until demolition and/or remediation is complete.

As authorized by Task Order, the Contractor shall perform S&M of EM-owned Y-12 facilities and sites (see Table 5 of Attachment C-1, *Facility and Site List*), using a graded approach, to ensure a safe and stable condition pending facility demolition and/or site remediation in accordance with applicable safety, regulatory (including site studies and/or characterization), and security requirements throughout the Contract period or until the facilities or sites are dispositioned. The Contractor shall plan, manage, and execute S&M activities in a proactive and strategic manner that minimizes long-term risks and ensures reliable operation of essential systems and facilities.

The Contractor shall provide all necessary S&M activities, which include but are not limited to scheduled site inspections for status of equipment, structures, and safety parameters; hazard identification and control; radiological surveys; facility access and security control; vegetation control; monitoring and repair of landfill caps; fence and gate repairs; subsidence repair; erosion control and repair; waste and debris pickup and disposal; snow removal; roof repair and maintenance; filter testing and replacement; instrument calibration and maintenance; and maintenance of heating, ventilation, and air conditioning and other building systems (e.g., fire protection). The Contractor shall proactively implement material actions to reduce the existing facility maintenance backlog and minimize future backlog. In addition, the Contractor shall characterize and dispose of all waste generated from S&M activities. The Contractor shall ensure current knowledge and proper management of all facility hazards and conditions. Cleanup actions shall be considered as a viable alternative to continued S&M where appropriate.

The Contractor shall conduct required S&M in compliance with laws, regulations, permits, agreements, DOE Orders, and decision documents. These activities shall ensure that each post-remediation site or facility remains in a safe and stable condition, that monitoring and safety-related systems and equipment remain operable, that site security and access controls are continuously provided, that structural integrity is maintained, and that the requirements of applicable CERCLA decisions are followed.

#### *C.5.4.2 Y-12 Environmental Monitoring*

The desired outcome is compliant performance of required Y-12 environmental monitoring and the submittal of required environmental monitoring reports for the ORR.

As authorized by Task Order, the Contractor shall conduct required environmental monitoring and reporting for remediated sites in compliance with laws, regulations, permits, agreements, DOE Orders, and decision documents. The Contractor shall implement the requirements of the *Bear Creek Valley Administrative Watershed Remedial Action Report Comprehensive Monitoring Plan* (DOE/OR/01-2457&D3), *East Fork Poplar Creek and Chestnut Ridge Administrative Watershed Remedial Action Report Comprehensive Monitoring Plan* (DOE/OR/01-2466&D4), and *Lower Watts Bar Reservoir and Clinch River/Poplar Creek Watershed Remedial Action Report Comprehensive Monitoring Plan* (DOE/OR/01-1820&D3), which summarize the performance and baseline environmental media monitoring and engineering controls, land use controls, and land use control verification requirements of the RODs associated with Y-12. The Comprehensive Monitoring Plan shall be revised as necessary to include the requirements identified in approved completion reports and in future RODs.

The Contractor shall coordinate EM Program environmental monitoring throughout the ORR and monitor all sediment, surface water, and groundwater as required to model and determine contaminant transport, determine remedial effectiveness, and evaluate and determine exit pathways. The Contractor shall also provide the necessary monitoring to ensure effectiveness is maintained following remedial actions. The Contractor shall evaluate monitoring data, provide statements and certifications as to the effectiveness of remedial actions and implementation of land use controls, and provide necessary reports on such findings. The Contractor shall perform environmental monitoring to verify the effectiveness of remedial actions and the protection of ecological receptors and to support future decision-making.

Air, surface water, and groundwater monitoring shall be employed as appropriate to verify compliance with ARARs and to verify offsite contaminant releases are at acceptable levels. Post-remediation radiation surveys and sampling (including sampling for radionuclides and non-radionuclides such as metals, organics, and PCBs) shall be performed to ensure that remedial actions are protective of human health and the environment.

The Contractor shall prepare required ORR environmental monitoring reports including but not limited to the Remediation Effectiveness Report, the Annual Site Environmental Report, and CERCLA five-year reviews. The Contractor shall submit the environmental monitoring reports in sufficient time to meet regulatory commitments.

The Contractor shall coordinate, plan, and implement groundwater activities consistent with the Groundwater Remediation Strategy. This may include, but is not limited to groundwater modeling, monitoring, and analysis of pathways. The Contractor shall also conduct environmental monitoring and reporting in support of emergency response activities.

## C.5.5 CERCLA Disposal Facilities and ORR Landfills Management and Operations (Y-12)

The desired outcome is the continuous, compliant, and cost-effective operation and maintenance of the OREM onsite waste disposal facilities.

### *C.5.5.1 EMWMF and EMDF Management, Waste Acceptance Criteria Attainment, and Operations*

The EMWMF currently provides disposal capacity for CERCLA waste resulting from ORR projects and activities. The planned construction of the EMDF (see Section C.4) will increase the onsite ORR disposal capacity without interruption.

As authorized by Task Order, the Contractor shall operate and maintain the EMWMF (see Table 5 of Attachment C-1, *Facility and Site List*) and EMDF (when constructed) for disposal of waste from all ORR CERCLA projects and activities in accordance with DOE Order 435.1, applicable Disposal

Authorization Statements, appropriate CERCLA decision documents, applicable FFA primary documents, and Section J, Attachment J-2, *Requirements Sources and Implementing Documents*. Responsibilities include, but are not limited to:

- Placement of received waste materials in compliance with all approved operating requirements and the ROD
- Operation and maintenance of the facilities in accordance with applicable regulatory requirements, well sampling and monitoring to ensure integrity of liner systems, maintenance of an enhanced operational cover to minimize the volume of water coming in contact with waste, management of water to maintain facility operations, and closure of existing cells in compliance with applicable regulatory requirements and DOE directives
- Management of the WAC process in accordance with approved plans and procedures to maintain compliance with regulatory requirements while ensuring effective use of disposal capacity
- Assisting waste generators with preparation of waste lot profiles and review and approval of WAC compliance for all waste-generating projects
- Integration of waste generation forecast information from all generating projects into the waste generation forecasting and waste shipment forecasting systems
- Preparation of the annual phased construction completion report that summarizes CERCLA disposal facility capacity utilization during the previous year and forecasts remaining capacity and utilization rates

#### *C.5.5.2 ORR Sanitary, Industrial, and Construction and Demolition Landfills*

As authorized by Task Order, the Contractor shall operate and maintain the following sanitary and industrial landfills and spoils areas (see Table 5 of Attachment C-1, *Facility and Site List*):

- Landfill IV, which accepts classified industrial and institutional solid waste
- Landfill V, which accepts sanitary and industrial solid waste
- Landfill VII, which accepts construction and demolition solid waste
- Spoils Area, which accepts clean, suitable sanitary and industrial earthen fill material that would otherwise consume valuable landfill volume
- Excess Spoils Areas (Landfills V and VII)

The landfills and spoils areas shall be operated in accordance with permits, regulations, and DOE Orders. The Contractor shall accept and disposition waste meeting the relevant WAC for each landfill from approved ORR generators.

The Contractor shall be responsible for the design and expansion (construction) of the ORR landfills as required to maintain adequate disposal capacity.

### C.5.6 Outfall 200 Mercury Treatment Facility (Y-12)

The desired outcome is successful commissioning and subsequent reliable operations of the Outfall 200 MTF.

The Oufall 200 MTF is being constructed as part of CERCLA actions to reduce mercury levels in East Fork Poplar Creek. The objective is compliance with ambient water quality criteria and assistance in controlling mercury discharges during cleanup of the West End Mercury Area. As authorized by Task Order, the Contractor shall accept operational responsibility for the Outfall 200 MTF from the DOE prime construction contractor upon certification by the Contractor's test director (See Section C.5.6.1, *MTF*

*Construction Support*) that construction system acceptance testing and contractor demobilization have been successfully completed.

Roles and responsibilities for the contractor entities involved in the MTF are summarized in Section J, Attachment J-3, *Site Services and Interface Requirements*.

### *C.5.6.1 MTF Construction Support*

The Contractor shall provide construction support to OREM during the MTF construction by another OREM prime contractor. Roles and responsibilities for the contractor entities involved in the MTF are summarized in Section J, Attachment J-3, *Site Services and Interface Requirements*.

***Title III Services During Construction:***
During construction, the Contractor shall provide Title III engineering services defined as processing field changes, providing facility safety support for design changes, and developing engineering as-built drawings.

***Project Management and Oversight Support During Construction:***
During construction, the Contractor shall provide ongoing project management support for construction management and integration functions including scheduling; cost and progress control, tracking, and reporting; and risk management. The Contractor shall also provide assistance to OREM for document control and management for non-business-sensitive documents during the balance of the MTF construction contract. The Contractor shall provide support to OREM for construction management and oversight during MTF construction. This includes providing onsite administration and support to DOE in oversight; supporting progress meetings and reporting; reviewing contractor submittals during MTF construction; monitoring the construction contractor's adherence to contract requirements (including the construction contractor's factory acceptance testing and construction acceptance testing), policies, and procedures; performing special inspections; and assisting with oversight of environmental compliance and quality assurance activities through closeout of the MTF construction contract. The Contractor shall prepare an FFA phased construction completion report for regulatory approval.

***Acceptance Testing:***
The Contractor shall prepare and revise, if necessary, acceptance test procedures in accordance with the *Outfall 200 Mercury Treatment Facility, Startup Test Plan* (UCOR-4931); provide a test director and provide test engineers during system acceptance testing (acceptance tests will be conducted by the construction contractor); prepare the system acceptance test reports; and perform special inspections. The test director shall certify and present test reports upon successful completion of the construction system acceptance testing.

***Checkout, Testing and Commissioning Plan:***
The Contractor shall prepare a commissioning plan including a commissioning schedule, operational testing and inspection plans, operational test procedures, and operational inspection and acceptance reports. The Contractor shall implement the checkout, testing, and commissioning plan under Section C.5.6.2.

### *C.5.6.2 MTF Checkout, Testing, and Commissioning*

The Contractor shall perform the following activities as part of facility acceptance, commissioning, and transition to operations:

- Receive the construction transition package from the DOE prime construction contractor and accept responsibility for the facility upon final demobilization of the construction contractor (turnover).

- Perform operational planning, preparation, and walkdown of procedures and other work control documentation to Contractor requirements.
- Establish safety documentation for facility operations, perform any necessary additional system operability testing, establish any necessary support contracts for materials and services, and order initial inventories of treatment chemicals, waste containers, and any other materials or equipment necessary for operation.
- Implement the Checkout, Testing, and Commissioning Plan prepared under Section C.5.6.1, including operations acceptance testing (hot tests) to demonstrate fully integrated system functionality and validate plant operating procedures.
- Undergo a readiness activity prior to startup and operation of the facility in accordance with initial operation of a non-nuclear facility.
- Prepare CD-4, Approve Start of Operations, documentation for DOE approval.
- Develop a transition to operations plan that describes the process for implementing the transition to operations activities.

#### *C.5.6.3 MTF Operations*

The Contractor shall operate and maintain the MTF to treat Outfall 200 effluent water in accordance with applicable regulatory requirements. The Contractor shall develop and implement a monitoring plan in accordance with the *Amendment to the Record of Decision for Phase I Interim Source Control Actions in the Upper East Fork Poplar Creek Characterization Area, Oak Ridge, Tennessee* (DOE/OR/01-2697&D2) to ensure treatment optimization, evaluate the effectiveness of treatment on mercury levels at East Fork Poplar Creek, and evaluate compliance with the ROD. The Contractor shall prepare monitoring and operational data reports and information required to respond to inquiries from regulators and other stakeholders.

### C.5.7 ETTP Site Closure, Historic Preservation, and Environmental Monitoring

The desired outcome is closure of ETTP as a DOE site and implementation of historic preservation commitments and environmental monitoring responsibilities.

#### *C.5.7.1 ETTP Site Closure*

As authorized by Task Order, the Contractor shall be responsible for supporting ongoing DOE responsibilities associated with the transfer of infrastructure and real property at ETTP.

The Contractor shall perform the following activities, including but not limited to:

- Meeting DOE obligations under existing agreements with the City of Oak Ridge and providing support to DOE for negotiating new agreements or renegotiating existing agreements, as necessary
- Preparing the FFA Removal Action Report summarizing phased construction completion reports that address the scope completed as a result of the *Action Memorandum for the Remaining Facilities Demolition Project at East Tennessee Technology Park, Oak Ridge, Tennessee* (DOE/OR/01-2049&D2)
- Performing radiological surveys in accordance with DOE release criteria
- Performing repairs and/or modifications along Poplar Creek and the Clinch River to ensure safe configuration
- Collecting samples and shipping sludge from an off-site water treatment plant for treatment and disposal as needed

- Removing, repairing, reconfiguring, and/or replacing site infrastructure including above-ground and underground utilities, roads, fences, and other elements to ensure compliance with applicable codes, or as required to support transfer and as directed by DOE
- Relocating or dispositioning remaining excess personal property, materials, and equipment consistent with DOE Directives, applicable regulations, and external agreements
- Demobilizing ETTP site operations including personnel, support structures, and equipment in a manner that effectively supports execution of cleanup scope at ORNL and Y-12

### *C.5.7.2 ETTP Historic Preservation*

The K-25 Building footprint is part of the Manhattan Project National Historical Park. The desired outcome is completion of the remaining stipulations of the *Memorandum of Agreement for Decommissioning and Demolition of the K-25 Site and Interpretation of the East Tennessee Technology Park on the Oak Ridge Reservation*.

As authorized by Task Order, the Contractor shall complete delineation of the K-25 footprint and install nine previously fabricated wayside exhibits. The Contractor shall also manage ETTP historic preservation artifacts, maintain a database of identified artifacts, and support DOE in property movements for excess artifacts not retained, as described in the Memorandum of Agreement.

### *C.5.7.3 ETTP Environmental Monitoring*

As authorized by Task Order, the Contractor shall implement the requirements of the *East Tennessee Technology Park Administrative Watershed Remedial Action Report Comprehensive Monitoring Plan* (DOE/OR/01-2477&D3), which summarizes the performance and baseline environmental media monitoring and engineering controls, land use controls, and land use control verification requirements from the RODs associated with ETTP. The Comprehensive Monitoring Plan shall be revised as necessary to include the requirements identified in approved completion reports and in future RODs. Should the RODs associated with ETTP be changed or modified for any reason, the Contractor shall implement those modified or changed requirements as applicable.

The Contractor shall conduct required S&M, environmental monitoring, and reporting for remediated sites (see Table 3 of Attachment C-1, *Facility and Site List*) in compliance with laws, regulations, permits, agreements, DOE Orders, and CERCLA decision documents to ensure the requirements of applicable CERCLA decisions are followed. The Contractor shall maintain and implement a ground excavation and penetration permitting process that ensures necessary measures are taken prior to performing ground excavation or penetration to avoid impacts to or from active underground utilities, underground inactive structures, residual contamination, and/or hazardous waste. The Contractor shall perform all required sediment, surface water, and groundwater monitoring, determine remedial effectiveness, and evaluate exit pathways. The Contractor shall evaluate monitoring data, provide statements and certifications as to the effectiveness of remedial actions and implementation of land use controls, and provide necessary reports on such findings. These activities collectively are intended to ensure that each post-remediation site or facility remains in a safe and stable condition, monitoring and safety-related systems and equipment remain operable, security and access controls are continuously provided, and structural integrity is maintained, as applicable.

The Contractor shall perform environmental monitoring to verify the effectiveness of remedial actions and the protection of ecological receptors and to support future decision-making. Surface water and groundwater shall be monitored as appropriate to verify compliance with ARARs and reduction of offsite contaminant releases to acceptable levels. Post-remediation radiation surveys and sampling (including sampling for radionuclides and non-radionuclides such as metals, organics, and PCBs) shall be performed to ensure remedial actions are protective of human health and the environment.

The Contractor shall provide ETTP updates to required environmental monitoring reports including but not limited to the Remediation Effectiveness Report, the Annual Site Environmental Report, and CERCLA five-year reviews.

### C.5.8 Legacy Waste Disposition

The desired outcome is the efficient disposition of legacy waste as listed in Section J, Attachment J-12, *Difficult to Dispose of Waste* and in accordance with the *Site Treatment Plan for Mixed Wastes on the U.S. Department of Energy Oak Ridge Reservation*, as applicable. These wastes include, but are not limited to:

- Shielded transfer tanks
- Casks and containers stored on the 7822-K pad
- Dioxin and furan-coded waste
- Mercury
- Radioisotope thermoelectric generators
- Sodium and lithium hydride shields

These wastes and materials have been accumulated for treatment and disposal pending development of appropriate technologies, availability of disposal sites, and/or availability of funding. The Contractor shall treat and/or dispose of these wastes as authorized by Task Order.

### C.5.9 Infrastructure Enhancements

#### *C.5.9.1 Infrastructure for ORNL and Y-12 Cleanup*

The desired outcome is infrastructure that will house the cleanup workforce, provide equipment and material laydown areas, and support work activities for the ORR Cleanup Contract scope.

As authorized by Task Order, the Contractor shall design, construct, and/or provide for new infrastructure or expansion of existing infrastructure.

#### *C.5.9.2 Design Basis Threat Mitigation*

The desired outcome is compliance with DOE Order 470.3, *Design Basis Threat (DBT) Order*.

As authorized by Task Order, the Contractor shall complete security risk assessments and vulnerability analyses and implement approved strategies to mitigate the risk of design basis threats pursuant to DOE Order 470.3.

## C.6. Core Functions

The following sections define the programs that must exist to safely and effectively perform the cleanup mission of the ORR Cleanup Contract. The requirements and associated implementing instructions established under these programs shall be applied to all work included in the PWS.

The desired outcome is the efficient performance of general program infrastructure and support activities necessary for the execution of the ORR Cleanup Contract, as authorized by Task Order.

## C.6.1 Central Services

### *C.6.1.1 Project Support Performance Requirements*

The following sections define the programs that must exist to safely and effectively perform the cleanup mission for the ORR Cleanup Contract and related facilities. The requirements and associated implementing instructions established under these programs shall be applied to all work within the PWS.

***Project Management***

(a) Successful execution of the project management work scope will ensure cost and schedule efficiency while minimizing programmatic risks. The Contractor shall ensure that project management practices are used in the performance of work including the development of project management plans, baselines, disciplined change control processes, and service level agreements.

(b) The Contractor shall prepare and submit for DOE approval a project management plan consistent with the requirements in DOE Order 413.3, *Program and Project Management for the Acquisition of Capital Assets*. The capital asset projects do not need to be standalone project management plans and instead may be an appendix to the project management plan.

(c) The Contractor shall provide all management and technical information to:

(1) Meet the requirements of DOE Order 413.3, when applicable.

(2) Support the budget formulation activities, including but not limited to emerging work items list, budget formulation input (including Integrated Priority List), the fall limited budget update submission, budget scenario development, and budget presentations such as public and regulatory briefings, etc.

(3) Meet the data requirements of the DOE Integrated Planning, Accountability, and Budgeting System (IPABS) and the Project Assessment and Reporting System (PARS II). Data for all scope authorized by Task Order, including operations activities and capital projects less than $50 million or prior to CD-2, shall be uploaded into PARS II in accordance with the "Contractor Project Performance Upload Requirements" document maintained by the DOE Office of Project Management.

(4) Ensure transparency in project performance and efficiency in project execution.

(5) Support audits, evaluations, and external technical reviews.

(6) Support other DOE project performance assessments and information needs.

(d) All project management information developed under this Contract shall be accessible electronically by DOE. The desired outcome is predictable and consistent Contractor performance aligned to customer needs conducted within annual and multi-year baselines.

***Project Integration and Control and Earned Value Management***

(a) The Contractor shall provide an Earned Value Management System (EVMS) Description that complies with the requirements of Section H clause *Earned Value Management System*, the *Electronic Industries Alliance EIA-748 Earned Value Management System Acceptance Guide* and *EIA-748 Earned Value Management Intent Guide*, and DOE Order 413.3.

(b) The EVMS Description shall describe the management processes and controls that shall be used to implement a compliant EVMS, manage and control work, and complete Contract requirements.

(c) The EVMS Description shall include:

(1) The baseline development process and the hierarchy of documents that shall be used to describe and maintain the Performance Measurement Baseline (PMB)

(2) Identification of the systems, tools and software, and integration of these systems with the work breakdown structure (WBS) and accounting systems and data

(3) The process the Contractor intends to use for earned value management, configuration control, interface control, and document control

(4) The Contractor's project baseline change control process

(5) The Contractor's process for handling changes that are only impacts to costs and are not identified as a schedule impact

(6) The organizational breakdown structure, including roles and responsibilities of each major organization and identification of key management personnel

(7) A list of project software the Contractor proposes to use for project control

(d) The Contractor shall comply with the requirements of the Section H Clause, DOE-H-2024, *Earned Value Management System* and, if required, have the EVMS evaluated against the EIA-748 standard by a qualified, independent third party selected by the DOE Office of Project Management. Upon completion of the evaluation and closure of all corrective actions, DOE Office of Project Management will certify the Contractor's EVMS as compliant with the EIA-748 standard. Subsequent to the initial evaluation and certification, DOE Office of Project Management may at any time require the Contractor to repeat the evaluation and certification process. The Contractor shall provide all necessary support to conduct the initial and any subsequent evaluations and closure of all corrective actions.

(e) The Contractor shall also flow down EVMS requirements in accordance with the Section H Clause, DOE-H-2024, *Earned Value Management System*.

***Performance Measurement Baseline***

(a) The PMB shall be an integrated and traceable technical scope, schedule, and cost execution baseline that encompasses all activities to execute the requirements of this Contract; informs and is integrated with other site contractors' life-cycle scope, schedule, and cost baseline, as applicable; and enables safe, effective, and efficient advancement and completion of the site mission.

(b) The PMB shall include the following:

(1) Technical Scope: The following baseline documents shall be viewed collectively as the technical scope for the cost/schedule control system:

(i) Contract PWS and other sections that define work scope and requirements

(ii) Waste site and facility lists

(iii) Approved interface agreements

(iv) WBS dictionary sheets (the WBS submittal shall include a data column which cross references the WBS elements at the lowest level to the appropriate Contract Line Item Number)

(c) The PMB shall comply with the following requirements:

(1) The WBS shall encompass all activities required in this Contract and provide the basis for all project control system components, including:

(i) Estimating

(ii) Scheduling

(iii) Budgeting

(iv) Project performance reporting (as required under this contract)

(2) Control accounts within the WBS shall be identified.

(3) The baseline and management thereof shall comply with EIA-748 *Earned Value Management Systems* and DOE Order 413.3.

(d) The schedule shall comply with the following requirements:

(1) All significant external interfaces, regulatory and Defense Nuclear Facilities Safety Board commitments, and government-furnished services and information dependencies shall be included.

(2) The schedule shall be an activity-based, resource-loaded, logical network-based and integrated plan that correlates to the WBS and is vertically traceable to the EVMS control accounts and aligns with the Contractor's field schedules.

(3) The schedule shall include earned value method at the activity level and be capable of summarizing from control accounts to higher WBS levels.

(4) Any additional working level schedules deemed necessary by the Contractor shall be integrated with the PMB and be able to provide earned value reporting in compliance with EIA-748.

(5) The PMB cost estimate shall include project resource plans, detailed resource estimates, basis of estimates, budgetary requirements, and identification of direct costs, indirect costs, management reserve, and fee.

(6) The method used to determine earned value shall be identified for each control account.

(7) The schedule shall be accessible to DOE upon request.

(e) The PMB shall be logically tied, driven, and integrated with:

(1) Financial system(s) for consistency and accurate reporting of information with traceability to budget and reporting requirements

(2) DOE, congressional, regulatory, and external commitments

(3) Performance milestones including contract performance incentives and other performance measures established by DOE

(f) Performance Measurement Baseline Submittals

(1) The Contractor shall develop and submit an initial PMB that is representative of the initial Task Order scopes of work. Subsequent updates to the PMB will occur as each Task Order is negotiated and awarded and implemented into the PMB. These proposed PMB updates, for additional Task Order work only, will be submitted as part of the task ordering process to the CO for DOE and Contractor negotiation and DOE approval as part of the Contractor's Task Order

Proposals. The Contractor shall comply with the requirements of Section H, *Task Ordering Procedure*. The Contractor shall also follow the requirements of their EVMS Description requirements for baseline change control process.

(2) The Contractor shall provide the WBS, WBS dictionary data, and basis of estimate data in either Microsoft Word© or Microsoft Access© format. Cost data shall be provided in Microsoft Access© or Excel© format and the schedule shall be provided utilizing the current version of Primavera Systems, Inc., Enterprise for Construction© software unless agreed to otherwise by DOE.

(3) The Contractor shall provide additional data that may be required by DOE for development of the site-wide life-cycle baseline and DOE Integrated Master Plan (IMP).

(4) The Contractor shall support DOE External Independent Review and Energy Systems Acquisition Advisory Board review of the initial submittal of the PMB and follow-on reviews of annual updates.

### *C.6.1.2 Project Performance Reporting*

The Contractor shall provide DOE with the necessary project performance information to support budget planning and execution; project planning and execution; project performance reporting, audit and evaluation; and other DOE performance assessment and information needs.

***Monthly Performance Report***

(a) The Contractor shall submit and transmit to DOE a monthly performance report representing the prior month's performance by the 12th Government work day of the following month.

(b) The monthly performance report shall include a summary of overall Contract performance and a separate report for each of the major work scopes and projects at the PWS level shown in Section C.

(c) The summary of overall Contract performance shall include:

(1) Key accomplishments

(2) Major issues including actions required by the Contractor and DOE

(3) Analysis of funds expenditure, with projections for the Project by fiscal year and life of the Contract

(4) Technical scope, schedule, and cost variance analysis, including implications to near-term and long-term milestones and deliverables at risk of being missed

(5) Discussion of corrective actions currently in place to address performance issues including initiation date of corrective actions

(6) Information on any safety or quality matters that emerged or persisted during the reporting month

(d) Each of the major project reports shall include:

(1) Project manager's narrative assessment including:

(i) Significant accomplishments and progress towards completion of project goals and objectives

(A) Key risks and challenges

(B) Evaluation of safety performance (including Integrated Safety Management Systems metrics and all recordable injuries, lost-time injuries, and near misses)

(2) Business structure information to demonstrate ongoing compliance with the requirements of the Section H clause entitled Subcontracted Work

(3) Project baseline performance including EVMS information using the following Office of Management and Budget Contract Performance Report formats (DID-MGMT-81466):

(i) Format 1, DD Form 2734/1, Mar 05, Work Breakdown Structure

(ii) Format 2, DD Form 2734/2, Mar 05, Organizational Categories

(iii) Format 3, DD Form 2734/3, Mar 05, Baseline

(iv) Format 4, DD Form 2734/4, Mar 05, Staffing

(v) Format 5, DD Form 2734/5, Mar 05, Explanations and Problem Analysis

(4) Contract Performance Reports provided in the format forms referenced in Integrated Program Management Report Data Item Description DI-MGMT-81861 unless the Contract specifies otherwise

(5) Contract Funds Status Report provided in accordance with Data Item Description, DI-MGMT-81468, Contract Funds Status Report, or equivalent

(6) Baseline schedule status, which reflects progress against the baseline and includes critical path analysis, performance trends, variance discussion(s), and potential issues related to milestones

(7) Contract estimates to complete and estimates at completion

(8) A change control section that summarizes the scope, technical, cost, and/or schedule impacts resulting from any implemented actions; and that discusses any known or pending baseline changes and utilization of management reserve

(9) Project risk assessment, including identification of critical risks, actions planned, and actions taken to address those risks; and potential problems, impacts, and alternative courses of action, including quality issues, staffing issues, assessment of the effectiveness of actions taken previously for significant issues, or the monitoring results of recovery plan implementation

(10) The project risk assessment to identify the engineering and technology to reduce the risk and uncertainty with the project

(11) Actions required by DOE, including government-furnished services and information and DOE decisions

***Project Review Meetings***

The Contractor shall participate in recurring contract and project reviews and be prepared to address any of the information in the monthly report and other information as requested by DOE. A contract or project status meeting shall be conducted at DOE's request to provide interim updates and address issues.

***Cost Estimating***

(a) Cost estimates shall be credible, well documented, accurate, and comprehensive.

(b) Contractor-developed cost estimates form the basis of the cost baseline of the PMB and are important when evaluating proposed Contract changes. DOE uses these cost estimates for budget formulation, Contract change management, cleanup program planning, establishing a database of estimated and actual costs, and performance measurement. The Contractor shall prepare cost estimates in accordance with the requirements in Section H, *Cost Estimating System Requirements* and Section H,

*Task Ordering Procedure* of this Contract and using *The Twelve Steps of a High-Quality Cost Estimating Process* identified by the Government Accountability Office (GAO) in GAO-09-3SP, *GAO Cost Estimating and Assessment Guide*, for all priced Contract actions exceeding the simplified acquisition threshold.

***Scheduling***

(a) The Contractor shall support DOE in the development and maintenance of the DOE IMP through the use of a DOE-provided standardized coding structure. The Contractor's PMB and Integrated Master Schedule (IMS) shall utilize the DOE-provided coding structure to integrate the Contractor's activities and capital asset projects into the DOE IMP. The IMS integrates the operations activities, capital asset projects, and other activities managed by the Contractor into one schedule. DOE will use the individual Contractor IMS to construct the IMP.

(b) The Contractor shall develop the IMS in accordance with the *National Defense Industrial Association's Planning & Scheduling Excellence Guide* (v3.0), and EIA748 *Guidelines*. The Contractor's IMS shall be resource loaded.

***Risk Management***

(a) Successful execution of the site cleanup mission requires an integrated risk management program where crosscutting risks and mitigation actions are identified, communicated, and coordinated with DOE and other site contractors, as applicable. The conduct of risk management shall result in risk-informed prioritization of program, project, and infrastructure investments that facilitate successful project execution and program management.

(b) The Contractor shall implement a risk management program in compliance with DOE Order 413.3 and DOE Policy Requirements for Management of the Office of Environmental Management's Cleanup Program. The Contractor shall also incorporate the principles of DOE G 413.3-7A, *Risk Management Guide*, and GAO 09 3SP in its risk management process.

(c) The Contractor shall submit a Risk Management Plan to DOE for approval. The capital asset projects do not need to be standalone risk management plans and instead may be an appendix to the Risk Management Plan. The plan shall identify the processes and procedures that will be implemented to address risk identification, qualitative risk assessment, quantitative risk analysis, risk handling, schedule risk analysis, risk monitoring and reporting, and calculating the recommended management reserve and schedule reserve required for adequate management of Contractor-controlled risk.

(d) The Contractor shall communicate its risk analysis pertaining to crosscutting decisions to DOE and other site contractors, as applicable, including agreement as to who shall be the lead for managing each risk. These crosscutting impacts shall be quantified in terms of probability, cost, and schedule impact to the overall site cleanup mission where possible.

### *C.6.1.3 Health and Safety*

The desired outcomes are health and safety programs that prevent and/or reduce occupational injuries, illnesses, and accidental losses by providing a safe and healthy workplace.

The Contractor shall provide for health programs, ambulatory care, and emergency care. In addition, the Contractor shall provide for worker health surveillance and personnel monitoring programs, which include but are not limited to lead, mercury, asbestos, beryllium, and radiation. These services are required to assess, monitor, record data, and provide medical support for current site workers who are or may be exposed to radiological and hazardous materials. The Contractor shall maintain medical records of former workers and make them available for health effects studies as requested by DOE. Medical records shall be maintained in accordance with 10 *CFR* 851 and 29 *CFR* 1910.1020.

The Contractor shall provide the following classes of examinations for initial and continuing assessment of employee health: pre-placement in accordance with the Americans with Disabilities Act (42 United States Code 12101), qualification examinations, fitness for duty, medical surveillance and health monitoring, return-to-work health evaluations, and termination examinations. The occupational medical services shall be informed of job transfers and will determine whether a medical evaluation is necessary. The physician responsible for the delivery of medical services or his/her designee will inform Contractor management of appropriate employee work restrictions.

The Contractor shall provide comprehensive health screening and medical surveillance services for certain OREM Federal employees, identified by OREM management, who conduct oversight of DOE contractor work activities. Services shall include the requirements of 10 *CFR* 851, *Worker Safety and Health Program*, for an Occupational Medicine Program, which include medical surveillance for programs such as Hearing Conservation, Respiratory Protection, Bloodborne Pathogens, and Hazardous Waste Operations and Emergency Response (HAZWOPER).

The Contractor shall meet occupational safety and health requirements (including but not limited to integrated safety management, general safety, industrial safety, electrical safety, fire protection, construction safety, firearms safety, explosives safety, industrial hygiene, pressure safety, and motor vehicle safety) for EM program operations and conditions. Occupational safety requirements (including but not limited to 10 *CFR* 851, 29 *CFR* 1910, and 29 *CFR* 1926) are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents.*

### *C.6.1.4 Radiation Protection*

The desired outcome is an effective radiation protection program that is protective of the workforce and the public through the use of an effective as-low-as-reasonably-achievable process.

As required in Section J, Attachment J-7, *Contract Deliverables*, the Contractor shall prepare and submit a Radiation Protection Program that is consistent with 10 *CFR* 835, *Occupational Radiation Protection Program* and DOE Order 458.1, *Radiation Protection of the Public and the Environment*. The Contractor shall conduct site activities in compliance with the DOE-approved Radiation Protection Program to minimize occupational exposure to ionizing radiation. The as-low-as-reasonably-achievable process shall be applied to EM program activities. The Contractor shall also provide radiation exposure monitoring (i.e., dosimetry) and reporting services for OREM representatives and others, as required. Radiation protection requirements are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents*.

### *C.6.1.5 Nuclear Safety*

The desired outcome is a compliant nuclear safety program that ensures proper management and safe activities in OREM nuclear facilities.

The Contractor shall develop and maintain safety bases for nuclear facilities, operations, and activities consistent with 10 *CFR* 830, *Nuclear Safety Management*. Readiness determinations for restart of activities and for startup of new activities shall be conducted in accordance with DOE Order 425.1, *Verification of Readiness to Start Up or Restart Nuclear Facilities* to demonstrate readiness to safely start the activity. Nuclear safety requirements are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents*.

### *C.6.1.6 Nuclear Criticality Safety*

The desired outcome is a compliant nuclear criticality safety program that prevents nuclear criticality accidents and provides proper mitigation of consequences from a nuclear criticality accident.

The Contractor shall establish and maintain a criticality safety program that (1) applies to fissionable materials that are produced, processed, stored, transferred, disposed of, or otherwise handled, (2) evaluates and documents operations with fissionable materials that pose a criticality accident hazard, (3) utilizes a graded approach, (4) provides for prevention and mitigation of consequences to personnel and property from a criticality accident, and (5) addresses nuclear safety requirements established by laws and regulations. Nuclear criticality safety requirements are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents*.

### *C.6.1.7 Safety Culture*

The desired outcome is a strong safety culture and a safety-conscious work environment. The Contractor shall:

(a) Adopt and continuously improve organizational culture (Site core values and behaviors), Safety Culture, and Safety Conscious Work Environment, including implementation and utilization of programs/processes that support employees raising concerns without fear of retaliation. These programs/processes include, but are not limited to, the Employee Concerns Program (ECP); the Differing Professional Opinions Process; Ethics and Compliance Program/Process; and Alternative Dispute Resolution;

(b) Continuously promote a work environment where employees are encouraged to raise concerns. The Contractor shall define expectations, rigorously reinforce those expectations, and take actions to mitigate the potential for a chilling effect;

(c) Conduct business in a manner fully transparent to DOE. Activities are demonstrated by open, clear, and well-communicated management actions and technical and project documentation. Identified issues and trends are proactively shared with DOE;

(d) Champion a culture that promotes proactive self-identification and reporting of issues that identifies and takes action on systemic weaknesses leading to sustained continuous self-improvement; and

(e) Champion a culture that emphasizes the following attributes:

- Demonstrated safety leadership
- Risk-informed, conservative decision making
- Management engagement and time in the field
- Staff recruitment, selection, retention, and development
- Open communication and fostering an environment free from retribution
- Clear expectation and accountability
- Personal commitment to everyone’s safety
- Teamwork and mutual respect
- Participation in work planning and improvement
- Mindful of hazards and controls
- Credibility, trust, and reporting errors and problems
- Effective resolution of reported problems
- Performance monitoring through multiple means

- Use of operations experience
- Questioning attitude

### *C.6.1.8 Quality Assurance*

The desired outcome is a quality assurance program that ensures products and services provided or performed by the Contractor are of a high quality and meet or exceed stated requirements.

The Contractor shall perform work on site in accordance with applicable quality assurance requirements. Quality assurance requirements are stipulated in the Section E clause *Higher-Level Contract Quality Requirements* (Dec 2014) and Section J, Attachment J-2, *Requirements Sources and Implementing Documents.*

### *C.6.1.9 Engineering*

The desired outcome is an engineering program that performs engineering program functions such as systems engineering, configuration management, design engineering, structural engineering, and safety significant system management.

The Contractor shall provide authorities having jurisdiction expertise (meeting the DOE authority having jurisdiction knowledge requirements) in the areas of electrical and fire protection safety, with authorities as delegated by DOE.

The Contractor shall provide the design authority for the EMDF, MTF, and other designs or design changes, as required. The design authority is responsible for establishing and maintaining the design requirements, ensuring design output documents accurately reflect the design basis, and maintaining design control and ultimate technical adequacy of the design process.

### *C.6.1.10 Environmental Protection*

The desired outcome is an environmental protection program that ensures Contractor activities are conducted in a compliant manner that is protective of the environment.

The Contractor shall comply with applicable federal and state environmental protection requirements in the execution of the Contract. These include but are not limited to CERCLA, RCRA, the ORR Site Treatment Plan, the Clean Air Act, the Clean Water Act, the National Environmental Protection Act, the Toxic Substances Control Act (TSCA), and the ORR FFA. The Contractor shall obtain, maintain, and comply with all environmental permits as required and allowed by law. Environmental protection requirements are stipulated in the Section H clause *Environmental Compliance* and in Section J, Attachment J-2, *Requirements Sources and Implementing Documents*.

### *C.6.1.11 Environmental Sustainability*

The desired outcome is an environmental sustainability program that ensures contract activities meet environmental sustainability requirements.

The Contractor shall ensure compliance with environmental sustainability requirements in accordance with Section J, Attachment J-2, *Requirements Sources and Implementing Documents*, as appropriate for the execution of this Contract. The Contractor shall coordinate with the Y-12 and ORNL M&O contractors in fulfilling these requirements.

### *C.6.1.12 Federal Facility Agreement and Related Support*

The desired outcome is proper administration of the ORR FFA.

The Contractor shall provide database and records management support to the FFA website, controlled copy distribution, FFA appendices, Administrative Record, and solid waste management units and areas

of contamination records for the entire ORR. The Administrative Record support will include maintaining all DOE contractor-produced Administrative Record copies and distributing Administrative Record copies (those which can be released to the public) to the DOE Information Center. Records required for post-closure land use controls should be identified and managed appropriately.

The Contractor shall support FFA administration activities including but not limited to budget prioritization information, annual cleanup progress report, tri-annual public involvement plans, technical expertise to support DOE interactions with the Site Specific Advisory Board, preparation of public fact sheets, and press releases.

The Contractor shall manage, update, and archive sampling data referenced in FFA documents in the OREIS database, except for sampling data taken for the purpose of meeting any disposition site WAC. The Contractor shall maintain the OREIS global information system to support utilization of the sampling data. The Contractor will also manage and operate an electronic sample tracking system to support sampling and analysis plans through submission of samples to the laboratory, sample analysis, receipt of electronic and hardcopy results, verification of analyses, invoicing, and submission of results to the OREIS database.

### *C.6.1.13 Records Management*

The desired outcome is a program for management of EM ORR contractor records that ensures such records are properly maintained and/or dispositioned.

The Contractor shall manage records (regardless of media) in accordance with Section J, Attachments J-2 and J-7, *Requirements Sources and Implementing Documents* and *Contract Deliverables*, respectively. All previous EM ORR cleanup contractor records are subject to the maintenance and disposition of the Contractor, including records created prior to the effective date of this contract. Records required for post-closure land use controls should be identified and managed appropriately. The Contractor shall ensure all records are properly scheduled and dispositioned prior to outgoing contract transition.

**Records Management Program Plan**

The Contractor shall submit a Records Management Program Plan, as required in Task Order 1, Section J-7, *Contract Deliverables*, to document the records management program (records lifecycle - creation/receipt, maintenance/use and disposition) to include, but is not limited to: electronic records, digital signature process, email, classified, audiovisual, quality records, historical records, contaminated, essential records, inventory and file plans, and disposition (transfers and destructions).

**Electronic Records Management System (ERMS)**

The Contractor shall develop and implement a process to ensure records are created and managed electronically throughout their lifecycle. If records must be scanned, the Contractor shall ensure scanning process, quality control process and images meet all National Archives and Records Administration (NARA) requirements for the digitization process, including the destruction of the source records in accordance with a NARA-approved Records Disposition Schedule.

**Electronic Information Systems**

The Contractor shall manage records contained in electronic information systems (EIS) by incorporating recordkeeping controls into the system or export the records into the ERMS in accordance with 36 CFR Part 1236, *Electronic Records Management*. The Contractor shall design and implement migration strategies to counteract hardware and software dependencies of electronic records whenever the records must be maintained and used beyond the life of the information system

in which the records are originally created and captured.

**Inventory and File Plan**

The Contractor shall develop and maintain up-to-date site-wide inventories and file plan(s) that provide for the identification, location, arrangement, assignment of disposition authority, and retrieval of all categories (record series) of records created and received. These inventories and file plans shall include the Contractor's annual updates, which shall be in a format to show all changes from the prior version.

**Records Requests**

The Contractor shall respond to records management data calls by NARA and DOE as requested and process record requests for the FOIA, the Privacy Act, the former worker medical screening program, Energy Employee Occupational Illness and Compensation Program Act (EEOICPA), the Chronic Beryllium Disease Prevention Program, congressional inquiries, legal discoveries, and other record requests (e.g., training, personnel, exposure, project, incident reports, visitor logs, etc.). The Contractor shall respond to record requests within the timeframe request by the CO or Contracting Officer Representative.

**Records Disposition**

The Contractor shall develop and implement a Records Disposition Plan, which shall include processing paper records to storage (e.g., on-site, Federal Records Center prior to 12/31/2022) and the destruction process for records and information content. The Contractor shall disposition all records including historical/legacy records in accordance with the NARA-approved Records Disposition Schedules and applicable federal laws and regulations.

1) Ensure proper NARA-approved Records Disposition Schedule assigned, box, index, complete transfer paperwork, and obtain DOE approval prior to sending transfer paperwork and shipping inactive temporary records to a Federal Records Center or permanent records to the NARA.

2) Complete destruction certificates for all records, including those requiring destruction by other contractors, and submit to DOE Records Management Field Officer for review and obtaining DOE Legal approvals prior to destruction.

**Document Control**

The Contractor shall develop, implement and maintain sound document control systems for its own documents and processes ensuring efficient tracking, retrieval, revision control and distribution of documents, including drawings.

### *C.6.1.14 Public Relations and Media Support*

The desired outcome is a strong public relations and communications program that ensures proper verbal and written dissemination of relevant OREM information.

The Contractor shall provide public relations services to communicate successes, and address challenges as needed, through a variety of tools (e.g., video production, press releases, articles, social media content, fact sheets, presentations). Public relations services also include stakeholder support, community outreach, media relations, tours, visits, public notices, access to documents, and preparation of supporting documents including the Annual Cleanup Progress Report and the Public Involvement Plan (updated every three years). The Contractor shall provide necessary technical expertise to DOE and for DOE

interactions with the Site Specific Advisory Board and other stakeholders (e.g., affected local governments, Oak Ridge Reservations Communities Alliance). The Contractor shall also support DOE in conducting emergency public information activities when necessary.

The Contractor shall obtain DOE review and approval of all communications or releases of information to the public, the media, or members of Congress in accordance with the Section H clause DOE-H-2048, *Public Affairs – Contractor Releases of Information* (Oct 2014). The Contractor shall coordinate OREM public relations activities with the Y-12 and ORNL M&O contractors as necessary.

### *C.6.1.15 Legal Management*

The desired outcome is a reliable legal management program, including litigation support.

The Contractor shall maintain legal expertise and demonstrate sound litigation management practices to include litigation and arbitration, and upon request from DOE shall provide legal advice and opinion on environmental matters, procurement, employment, labor, and the Price-Anderson Amendments Act. The Contractor shall also review and interpret legislation and laws, research and draft memoranda, and manage and oversee outside legal counsel.

The Contractor shall provide litigation support to the Government when requested by DOE in cases of actual or threatened litigation, regulatory matters, or third-party claims. Litigation support includes but is not limited to case preparation assistance; document retrieval, review and reproduction; witness preparation and testimony; expert witness testimony; and assisting Government counsel as necessary in response to discovery or other information-related activities responsive to any legal proceeding.

The Contractor shall provide timely support for legacy litigation, management of legacy worker compensation claims, and responses to requests for legacy documents. Legacy litigation support is provided in response to individual case requests by DOE legal staff or in response to other legally enforceable requirements. The management of legacy worker compensation claims includes claim investigation and support to DOE in estimating, evaluating, and managing such claims.

### *C.6.1.16 Safeguards and Security*

The desired outcome is an S&S program that ensures protection of DOE OREM assets including people, property, and information.

The Contractor shall provide the resources, materials, and programs to ensure appropriate levels of protection against unauthorized access; theft, diversion, and loss of custody of accountable nuclear material; espionage; loss or theft of classified matter; loss or theft of government property; and other hostile acts that may cause unacceptable adverse impacts on national security or the health and safety of DOE and Contractor employees, the public, or the environment. This applies to buildings and areas under the Contractor's responsibility at ETTP, Y-12, and ORNL as authorized by Task Order.

The Contractor is not responsible for overall security at ORR sites, or for providing protective force resources. The Contractor shall coordinate with the appropriate site security contractor as it relates to Contract scope, provide relevant information and/or support for site-wide security requirements, and comply with site security requirements in close coordination with the Y-12 and ORNL M&O contractors and the protective force contractor at ETTP.

The Contractor's S&S requirements are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents.* Interfaces are described in Section J, Attachment J-3, *Site Services and Interface Requirements*.

The Contractor's functions include but are not limited to:

(a) **S&S Program Planning, Administration, Resources, and Budget:** The Contractor shall identify and coordinate its S&S operational planning activities and ensure that S&S programs are tailored to address site-specific characteristics and requirements, current technology, ongoing programs, and operational needs to achieve acceptable protection levels that reduce risks and are cost-effective.

(b) **S&S Personnel Development and Training:** The Contractor shall identify S&S training needs for staff and shall arrange training in accordance with applicable requirements.

(c) **S&S Awareness Program:** The Contractor shall inform individuals of their S&S responsibilities and promote continuing awareness of good security practices.

(d) **Surveys, Reviews, and Assessments:** The Contractor shall accommodate and/or support S&S surveys, reviews, assessments, and/or performance tests (e.g., force-on-force exercises) that are conducted at the site(s) and/or for S&S program elements under the Contractor's responsibility. The Contractor shall also perform self-assessments of applicable S&S program elements as required.

(e) **Resolution of Findings:** The Contractor shall identify, implement, and close corrective actions for deficiencies in accordance with the S&S corrective action management programs and applicable DOE requirements.

(f) **Performance Assurance:** The Contractor shall provide performance assurance information to develop and/or support preparation of the site security plans.

(g) **Security Conditions (SECON):** The Contractor shall comply with SECON response plans in the approved site security plans that will be immediately implemented when there is a change in either DOE or a specific facility or site SECON status.

(h) **Site Security Plans and Other S&S Plans:** The Contractor shall provide information to develop and/or support preparation and maintenance of the site security plans. The Contractor shall prepare and comply with site security plans and other S&S plans as required to execute the scope authorized by Task Order. The Contractor shall ensure applicable plans are revised prior to changing operations or configurations that alter the performance of existing S&S systems (e.g., limited or protected area boundaries, physical security configurations and associated hardware [sensors and cameras], patrol coverage and responses, safeguards methods or boundaries, and entry and access control systems and procedures).

(i) **Vulnerability Assessments:** The Contractor shall provide information and expertise to develop and/or support preparation of vulnerability assessments, security analyses, and special S&S evaluations to execute the scope authorized by Task Order.

(j) **Design Basis Threat:** The Contractor shall implement S&S actions, procedures, and/or processes necessary to comply with ongoing DOE design basis threat requirements. See Section C.5.9.2, *Design Basis Threat Mitigation,* for Task Order scope for initial DOE Order 470.3 compliance.

(k) **Facility Clearance and Registration:** The Contractor shall submit all required information for facility clearance and registration actions in accordance with the DEAR, section 952.204-2(l) for its subcontractors requiring personnel security clearances. The contractor shall be responsible for implementation of the provisions of DOD 5220.22-M, National Industrial Security Program Operating Manual (NISPOM) (Chapter 7, "Subcontracting"), all DOE security requirements for their subcontractors, and for termination of the subcontracts upon completion of activities.

(l) **Foreign Ownership, Control or Influence:** The Contractor shall provide accurate and complete submissions of Standard Form 328, *Certificate Pertaining to Foreign Interest*; information provided during annual certification (if applicable) and review activities; and other required documentation, as

required for any significant changes. The Contractor shall ensure all changes that might affect the determination are reported to the DOE cognizant security office as they occur.

(m) **Classified Visits:** The Contractor shall implement procedures for processing and handling classified visits to facilities under its cognizance, submit required information as needed, and comply with the requirements of approved site security plans.

(n) **Equivalencies and Exemptions:** The Contractor shall identify, evaluate, coordinate, and submit equivalencies and exemptions to S&S requirements to DOE.

(o) **Incidents of Security Concern:** The Contractor shall develop and implement procedures and processes consistent with DOE requirements for addressing incidents of security concern.

(p) **Protective Forces:** The Contractor shall support and integrate operational and business activities with Protective Forces at each site for the physical protection of special nuclear material, classified materials, and industrial assets, and for the mitigation and deterrence of radiological and toxicological sabotage events.

(q) **Badging and Access Authorization (Clearance) Processing:** The Contractor shall provide pre-employment and pre-clearance suitability evaluations for prospective employees or clearance holders. The Contractor shall request and obtain personnel security clearances and badges. The Contractor shall support downgrading and terminating clearances as required. The Contractor shall obtain security badges, keys, proximity cards, and other personal security and access devices from terminating employees and remove such individuals from automated access control systems.

(r) **Unclassified Foreign National Visits and Assignments:** The Contractor shall implement procedures for meeting the requirements of processing and handling foreign national visitors, submit required information (as needed), and comply with the requirements of approved security plans.

(s) **Information Security:** The Contractor shall ensure requirements for the identification and protection of sensitive and classified information and matter are met. The Contractor shall ensure all sensitive and classified information is protected and controlled commensurate with its classification level, category, and applicable caveats. The Contractor shall nominate a Classification Officer and a sufficient number of qualified Derivative Classifiers to be appointed. The Contractor shall make appropriate classification guidance available to potential generators and Derivative Classifiers of classified information.

(1) Operations Security (OPSEC): The Contractor shall perform the necessary management and support functions required for an effective OPSEC program. The Contractor shall perform OPSEC assessments as required of all facilities that have the potential to process or store classified or controlled unclassified information. The Contractor shall review information generated to execute the scope authorized by Task Order for critical information.

(2) Classified Matter Protection and Control: The Contractor shall develop and maintain a system of procedures, facilities, and equipment to identify, protect, and control classified matter that is generated, received, transmitted, used, stored, reproduced, or destroyed in accordance with applicable requirements. The Contractor shall reduce unneeded classified matter and report and support the investigation of potential or actual compromise of classified information.

(3) Unclassified Controlled Nuclear Information Program: The Contractor shall nominate a sufficient number of qualified Reviewing Officials to be appointed. The Contractor shall make appropriate Unclassified Controlled Nuclear Information topical guidance available to potential generators and Reviewing Officials of unclassified controlled nuclear information.

(4) Controlled Unclassified Information: The Contractor shall manage and implement a Controlled Unclassified Information Program, in accordance with DOE requirements, for official use only and other controlled unclassified information (including export controlled and nonproliferation information).

(t) **Material Control and Accountability (MC&A):** The Contractor shall maintain control and accountability of accountable nuclear material as required to execute the scope authorized by Task Order. Controls shall be appropriate for the nuclear material attractiveness and quantities as described in DOE requirements.

(1) MC&A Plan and Program: The Contractor shall develop and maintain a DOE-approved MC&A Plan. The Contractor's MC&A Program shall conform to and implement the MC&A Plan for program management, materials accountability, materials control, measurement, and physical inventory.

(2) MC&A Movement: The Contractor shall coordinate movement and/or shipment of nuclear materials as needed.

(3) Nuclear Materials Management and Safeguards System: The Contractor shall report accountable nuclear material data to the Nuclear Materials Management and Safeguards System electronically as required.

### *C.6.1.17 Information Technology*

The desired outcome is successful and compliant execution of the ORR Cleanup Contract mission and associated activities by delivering innovative and secure Information Technology (IT) solutions.

The Contractor shall provide management, coordination, and expertise for areas relating to information assurance (cyber security) for government-owned systems including General Support Systems, National Security Systems, Industrial Control Systems, and Supervisory Control and Data Acquisition systems. These systems identify and protect classified, unclassified, and sensitive information generated, processed, and stored for the ORR Cleanup Contract. The Contractor shall extend and integrate IT practices, programs, procedures, and requirements (e.g., engineering, configuration management, governance, architecture, cyber security) to its Supervisory Control and Data Acquisition and Industrial Control Systems.

The Contractor shall be proactive regarding cyber threats and IT systems shall be protected based on evolving threats in accordance with the Federal Information Security Management Act of 2002. The Contractor shall obtain an authorization to operate designation from the DOE Authorizing Official for all IT systems. The Contractor's IT systems covered under this Contract shall operate in accordance with all terms and conditions specified in the authorization to operate and shall not operate if a denial of authorization to operate has been issued. The authorization to operate durations will be based on how well the Contractor implements the DOE policy specific to cyber security and on the Contractor's ability to prevent, detect, contain, and report any malicious activity and intrusion into IT systems.

The Contractor shall comply with the cyber security requirements specified in DOE Order 205.1, *Department of Energy Cyber Security Program* and the *Office of Environmental Management (EM) Cyber-Security Policy and Risk Management Approach Implementation Plan*. Major areas of concern are the handling of sensitive information to include personally identifiable information, protecting information and information systems from unauthorized access, and reporting to the DOE Joint Cyber Coordination Center (known as JC3) any significant attempts or successful intrusions into these systems by unauthorized individuals. Cyber security personnel and privileged users such as systems administrators may be required to obtain a DOE Q clearance.

Applications purchased or developed to support the mission under this Contract shall be able to run on mandatory IT baseline security configurations without any deviations and must comply with the appropriate controls as documented in National Institute for Standards and Technology SP 800-53, *Security and Privacy Controls for Federal Information Systems and Organizations*. The Contractor shall use federally available enterprise applications and licenses, if they exist, prior to purchasing or developing custom products, including enterprise solutions to provide cyber security.

The Contractor will be provided access to the software systems listed in Section J, Attachment J-8, *Government-Furnished Services and Information*, and other software systems as may be necessary to coordinate information exchange with customers and interface partners. The Contractor shall:

- Where applicable, use the software systems listed in Section J, Attachment J-8, *Government-Furnished Services and Information*. The Contractor is not responsible for any updates of listed software except where noted.
- Provide any additional databases and software programs it deems necessary to manage staff training requirements, facility equipment, analytical data, compliance with environmental regulations, and protection of the safety and health of its employees.
- Ensure that all software meets the quality assurance requirements of its software quality assurance plan.

The Contractor shall comply with Office of Management and Budget Circular A-130, *Management of Federal Information Resources*, and provide detailed input into the ongoing capital planning investment control process, including but not limited to IT investment cost, schedule, and risk. This also includes responding to occasional data calls for more detailed IT investment and performance information.

### *C.6.1.18 Audit Support Services*

The desired outcome is Contractor support to DOE for OREM external audits.

The Contractor shall provide support to DOE as required for internal and external audits or assessments, including but not limited to DOE Headquarters, GAO, Inspector General, Defense Nuclear Facilities Safety Board, EPA, and Tennessee Department of Environment and Conservation.

### *C.6.1.19 Administration of Pension and Benefits Services at ORR, Portsmouth, and Paducah Sites*

The desired outcome is proper administration of DOE pension and benefit plans for the ORR, Portsmouth, and Paducah sites.

The Contractor shall administer the ETTP Pension Plan for Grandfathered Employees (Multi-Employer Pension Plan known as MEPP), the ETTP Health and Welfare Benefit Plan (Multi-employer Welfare Arrangement known as MEWA), and all other existing benefit plans for eligible employees in accordance with the terms and conditions in Section H and the respective plan documents. Grandfathered Employees may consist of bargained and non-bargained employees of the incumbent contractor or those participating employers at the Portsmouth and Paducah Gaseous Diffusion Plants. The Contractor shall act as fiduciary of the plans, as applicable.

### *C.6.1.20 Other Program Activities*

The Contractor shall provide resources and/or support necessary for the conduct of business (e.g., prime contract administration, human resources, budget, accounting, severance, training, and real and personal property including maintaining and updating FIMS to accurately reflect the status of EM-owned ORR facilities, as necessary) not specifically assigned elsewhere. These resources and support shall be

provided in accordance with applicable DOE Orders, invoked Technical Standards, and Contract requirements.

## C.6.2 Project Services

### *C.6.2.1 Reservation Management*

The Contractor shall provide support for the management of reservation-wide initiatives including natural resources, cultural resources, roads and grounds, utilities, emergency management, Joint Information Center, information, and other miscellaneous initiatives.

### *C.6.2.2 Reindustrialization*

The desired outcome is Contractor support to OREM reindustrialization activities that ensures successful and compliant transfer of DOE Oak Ridge excess property for reuse.

The Contractor shall perform reindustrialization program activities including property transfer documentation (e.g., covenant deferral request packages, National Environment Protection Act documentation); interface with the Community Reuse Organization of East Tennessee, the City of Oak Ridge, regional industrial development boards, and other stakeholders as necessary; and program management and administration support. The Contractor shall assist DOE in the coordination of the OREM cleanup mission with ongoing reindustrialization activities and the activities of private sector occupants.

### *C.6.2.3 Emergency Management and Fire Protection*

The desired outcome is compliant emergency management and fire protection programs.

The Contractor shall provide for and integrate emergency management services for EM activities at ORNL and Y-12 with the M&O contractors, and with the City of Oak Ridge at ETTP. The emergency management program shall include emergency planning and preparedness as well as response to possible incidents involving nuclear, radiological, chemical, and hazardous materials on site. Emergency management shall be performed in accordance with Section J, Attachment J-2, *Requirements Sources and Implementing Documents*, and the Section H clause *Emergency Response*.

The Contractor shall maintain a fire protection program that ensures a level of fire protection and fire suppression capability sufficient to minimize losses from fire and related hazards. Fire protection requirements are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents*.

Interfaces and roles and responsibilities are summarized in Section J, Attachment J-3, *Site Services and Interface Requirements.* At ETTP, the Contractor shall adhere to the *Memorandum of Agreement (MOA) Between the U.S. Department of Energy and the City of Oak Ridge, Tennessee, on the Transition of the East Tennessee Technology Park Fire Protection and Emergency Response Services*.

### *C.6.2.4 Technology Development*

The desired outcome is the implementation of technology development activities that support OREM cleanup as necessary.

The Contractor shall plan and implement technology development activities to support cleanup in accordance with the OREM *Mercury Technology Development Plan* (DOE/ORO-2489) and/or other DOE EM technology development initiatives and related guidance. The Contractor shall prepare and/or update other technology development documentation as necessary.

### *C.6.2.5 Historic Preservation and Cultural Resource Management*

The desired outcome is compliance with historic preservation and cultural resource requirements in the planning and execution of EM activities.

The Contractor shall ensure that historic preservation and cultural resource management have been considered early in the environmental cleanup decision-making process, and shall ensure compliance with applicable laws governing cultural resources and historic preservation, which may include but is not limited to the National Historic Preservation Act, the Archaeological Resources Protection Act, the Archaeological and Historic Preservation Act, the Native American Graves Protection and Repatriation Act of 1990, and Executive Orders 11593, *Protection and Enhancement of the Cultural Environment*, 13287, *Preserve America*, and related agreements. The Contractor shall coordinate with the ORNL and Y-12 sites M&O contractors and stakeholder organizations to ensure compliance with historic preservation plans, the *Cultural Resource Management Plan* (DOE/ORO-2085), the above laws, and the requirements in Section J, Attachment J-2, *Requirements Sources and Implementing Documents*.

Unanticipated discoveries shall be addressed in accordance with the applicable site historic preservation and cultural resource management documentation, which may include but is not limited to development and/or implementation of any agreements with related actions required for compliance.

### *C.6.2.6 Analytical Services (Sample Management Office Integration)*

The desired outcome is analytical data of sufficient quality to meet DQOs for OREM activities.

The Contractor shall provide for analytical services and/or laboratories as required to provide analytical data of sufficient quality to meet DQOs. The Contractor shall support the DOE Consolidated Audit Program for analytical services laboratories and waste treatment, storage, disposal, and recycling facilities. Such audit support shall be limited to those laboratories and waste treatment, storage, disposal, and recycling facilities related to the ORR activities under this Contract.

### *C.6.2.7 Transportation Services*

The desired outcome is a transportation program that ensures safe, compliant transportation of EM materials and waste.

The Contractor shall be responsible for transportation services, including but not limited to transportation, traffic management for areas within its administrative responsibility, shipping and receiving, vehicle maintenance and management, equipment maintenance and management, operation and maintenance of the Radio Frequency Identification Transportation System (or equivalent), and mail services.

The Contractor shall ensure safe and effective transportation routes are established for transporting cleanup waste from ORNL and Y-12 to the onsite landfills in coordination with the appropriate DOE program office, contractor organizations, and other stakeholders, as necessary. Transportation requirements are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents.*

### *C.6.2.8 Waste Management*

The desired outcome is a waste management program that ensures safe, compliant, and cost effective management, storage, treatment, and disposal of waste and materials under OREM's responsibility.

The Contractor shall provide safe, compliant, and cost-effective management, storage, treatment, and/or disposal of waste (i.e., sanitary and industrial waste, classified waste, LLW, mixed LLW, TRU waste, RCRA waste, and TSCA waste) and materials that may be contaminated with radiological and/or hazardous constituents as a result of past operations. Some of these wastes and materials have been accumulated for treatment and disposal pending development of appropriate technologies, availability of

disposal sites, and/or availability of funding (see Section J, Attachment J-12, *Difficult to Dispose of Waste*). The Contractor shall implement and maintain a site-wide radioactive waste management program to ensure that the requirements of DOE Order 435.1, *Radioactive Waste Managemen*t, and its associated manual are met. The Contractor shall coordinate with disposal facilities to ensure their data needs and requirements for waste acceptance are met. The Contractor waste operations shall cost-effectively maximize the use of sanitary and construction landfills over other disposal sites.

The Contractor shall manage all waste storage, treatment, and disposition activities in compliance with DOE Order 435.1, RCRA, TSCA, CERCLA, and other applicable state or Federal requirements. The Contractor shall establish and maintain a waste generation forecast for all cleanup projects in the scope of this Contract. The Contractor shall also manage waste tracking systems and the waste generation forecast and ensure data is accurate and accessible to meet DOE and regulatory requirements and to support project information needs. The Contractor shall prepare reports to meet the requirements of the *Site Treatment Plan for Mixed Wastes on the U.S. Department of Energy Oak Ridge Reservation* and the *Oak Ridge Reservation Polychlorinated Biphenyl Federal Facilities Compliance Agreement* (ORR-PCB-FFCA) and shall coordinate with other ORR programs and contractors as needed. Waste management requirements are stipulated in Section J, Attachment J-2, *Requirements Sources and Implementing Documents.*

### *C.6.2.9 Land Use Controls*

The desired outcome is the planning and implementation of long-term land use controls that ensure protectiveness and meet CERCLA requirements.

The Contractor shall address long-term land use control issues in decision-making, cleanup, and post-remediation processes. The Contractor shall provide for the activities, plans, and infrastructure needed for successful transition of EM, Y-12, and ORNL site areas from cleanup, and shall plan and execute long-term land use controls responsibilities at ETTP as described in Section C.5.7.3.

The Contractor shall provide (as necessary), operate, and maintain land use controls that are consistent with CERCLA commitments to ensure protectiveness.

The Contractor shall support DOE in the coordination and communications regarding long-term land use controls planning and transition with involved parties, including local stakeholders and regulators, consistent with the FFA. The Contractor shall verify the implemented institutional and engineering controls for transferred property and incorporate these in the annual Remediation Effectiveness Report.

### *C.6.2.10 Support DOE Natural Resource Damage Assessment*

The desired outcome is compliance with requirements of the CERCLA Natural Resource Damage Assessment.

The Contractor shall provide support to DOE for the purpose of complying with the Natural Resource Damage Assessment requirements under Section 107(a) and 120(a) of CERCLA. DOE is liable for damages or injury to, destruction of, or loss of natural resources, including the cost of assessing such damage. CERCLA and the National Contingency Plan establish DOE as both a CERCLA lead response agency on DOE facilities and a trustee for natural resources under its jurisdiction. As such, the DOE must respond to releases of hazardous substances from DOE's facilities, is liable for the restoration of natural resources lost or injured as a result of such releases or from the response actions, and participates in a trustee council with other Natural Resource Damage trustees in effecting mitigation for damages or injury due to natural resources under DOE's jurisdiction.

## C.7 List of Section C Attachments

Attachment C-1 – Facility and Site List