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Performance Work Statement (PWS)

Paducah Gaseous Diffusion Plant (GDP) Deactivation Project Overview and Objectives

Introduction

The Paducah Gaseous Diffusion Plant (Paducah GDP) is located on a Federal reservation in Western Kentucky, approximately 10 miles west of Paducah, Kentucky, and 3.5 miles south of the Ohio River. The plant is situated on approximately 3,423 acres divided as follows:

- 644-acres within a fenced limited security area;
- Approximately 822 acres of uninhabited area surrounding the plant area; and
- 1,986 acres licensed to the Kentucky Department of Fish and Wildlife as part of the West Kentucky Wildlife Management Area.

Additionally, there are approximately one hundred thirty-three acres of off-site easements primarily associated with incoming raw water lines and pumps from the Ohio River, emergency notification sirens, and environmental sampling stations. Bordering the Paducah Site to the northeast, between the plant and the Ohio River, is the Tennessee Valley Authority Reservation where the Shawnee Steam Plant is located.

The Paducah GDP is a Government-owned uranium enrichment plant that was constructed in the early 1950's and operated by the U. S. Department of Energy (DOE) and its predecessor agencies for manufacturing enriched uranium for the fabrication of fuel assemblies to support commercial and military nuclear reactors and to support weapons development activities. Paducah GDP includes Hazard Category 2 Nuclear Facilities primarily based on the uranium inventory; however, other radioactive materials, such as transuranics, are present and contribute to the hazard categorization of the facilities. The Paducah GDP is undergoing transfer of the GDP facilities to DOE that are leased and operated by the United States Enrichment Corporation (USEC).

The uranium enrichment program utilizing the gaseous diffusion process produced various hazardous, non-hazardous, and radioactive byproducts. These activities resulted in contamination of equipment, facilities, soil and groundwater with radioactive and hazardous constituents and the generation of various wastes, including those regulated under the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act (TSCA), and the Atomic Energy Act (AEA). These wastes include construction debris; sanitary waste; Hazardous Waste (HW); radioactive Low-Level Waste (LLW); Mixed Low-Level Waste (MLLW); Transuranic Waste (TRU); and Mixed TRU (MTRU) Waste. Many of these wastes were stockpiled or disposed on-site, which resulted in the site being placed on the National Priorities List (NPL) in 1994. The most significant contaminants are Trichloroethene (TCE) and Polychlorinated Biphenyls (PCB). Approximately 570 Solid Waste Management Units (SWMUs) have been identified and listing may be found in the Paducah Federal Facility Agreement (FFA) Site Management Plan (SMP) and the RCRA Permit.

The 1992 Energy Policy Act (1992 EPAct) initiated a process to privatize the DOE uranium enrichment enterprises. Initially, USEC was established to operate both the Portsmouth, Ohio, and Paducah, Kentucky, GDPs as a Government corporation. The 1992 EPAct also stated the Portsmouth and Paducah GDPs were to be leased to USEC and required operations of the enrichment process to be regulated by the U.S. Nuclear Regulatory Commission (NRC), which issued certificates of compliance to USEC for both plants in November of 1996.

The Paducah site currently has three (3) major prime contractors and a support services contractor that support DOE with ongoing activities. The contractors and their respective summary level of scope are described below:

1) The Remediation Contractor is responsible for specified environmental remediation activities at Paducah GDP;
2) The Infrastructure Contractor is responsible for site infrastructure, such as roads and grounds, janitorial services, security/classification to include Site Officially Designated Security Authority (ODSA) for DOE interest;
3) The DUF_6 Contractor is responsible for the operation of the Depleted Uranium Hexafluoride (DUF_6) Conversion Plant and management of DOE UF_6 cylinders; and
4) The Environmental Technical Services (ETS) small business contractor provides environmental technical and administrative support services directly to DOE.

All site cleanup and remediation activities are conducted in compliance with applicable federal, state, and local laws and regulations. The principal regulating agencies are the U.S. Environmental Protection Agency (EPA), Region 4, and the Kentucky Department for Environmental Protection (KDEP). These agencies issue permits, review compliance reports, participate in joint monitoring programs, inspect the facilities and operations, and oversee compliance with the applicable laws and regulations.

A community relations plan, *Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant* defines public involvement for the environmental remediation program. DOE entered into an FFA with the EPA and the Commonwealth of Kentucky on February 13, 1998. The FFA established one set of consistent requirements for achieving comprehensive site remediation in accordance with the RCRA and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including stakeholder involvement. Remediation, including current and future Deactivation and Decommissioning (D&D) activities, is performed in accordance with the requirements of this agreement.

The Paducah Citizens Advisory Board (CAB), a Site Specific Advisory Board chartered by DOE under the Federal Advisory Committee Act, is made up of individuals with diverse backgrounds and interests. It meets monthly to focus on early citizen participation in environmental cleanup priorities and related issues at the Paducah GDP. The CAB currently provides advice on future missions at Paducah GDP and shall continue those activities through the changing missions at Paducah GDP.

Paducah GDP facilities and its ancillary structures and systems are currently under lease to USEC (the “GDP lease”) and are listed in Table C-1, Listing of GDP Transfer

Facilities. In addition to the four (4) large process buildings and the smaller C-310 Purge and Product, the C-315 Tails Withdrawal buildings, the C-360 Toll and Transfer Facility, and C-337-A and C-333-A feed facilities, the remaining structures are support facilities such as a steam plant, electrical switchyards, cooling towers, cleaning and deactivation facilities, water and wastewater treatment plants, maintenance and laboratory facilities, and office buildings. Finally, the buildings are served and connected by an extensive network of utilities, systems, roads and sidewalks.

Project Task Order Purpose and Scope

The Paducah GDP Deactivation Project encompasses managing 323 structures, property or buildings (See Table C-1) with approximately 7,500,000, ft^2 of floor space. Additional structures, property or facilities (Section J, Attachment J-13) supporting environmental remediation services shall be the responsibility of the Contractor after expiration of the Remediation Contract. The Contractor shall assist in transfers/assignment of the structures, property or buildings from the current tenants to the Contractor (or other site contractors), perform S&M of these facilities, and preparing the facilities for future demolition. The Contractor shall perform Deactivation, Decontamination and Demolition in accordance with Section C.1.5.3 as approved by the CO if/when funding becomes available. The Contractor shall also assist in transfers/assignment of structures, property or buildings from the current tenants to new tenants for purposes of re-use or re-industrialization, as appropriate.

The scope of this Task Order focuses on the deactivation of the Paducah GDP facilities and preparing the facilities for future demolition. There are four (4) distinct periods associated with the execution of this PWS, with the Project Support activities (C.1.2.2) spanning all four periods. They are as follows:

1) Task Order Implementation Period (Period 1) (Section C.1.1): This implementation period commences immediately after the notice to proceed (NTP) during which the Contractor shall mobilize its management team to the site, establish its business/human resources office, and perform planning, training, and all other activities associated with Period 2. Period 1shall not exceed 90 days from the NTP. The Contractor shall utilize this implementation period to plan for the execution of activities in Period 2. The management team shall be mobilized and on-site within 30 days of the NTP.

2) Pre-Delease Planning and Facility Transfer Period (Period 2) (Section C.1.2.1): This period commences immediately after NTP (simultaneously with Period 1) and includes successful transfer and acceptance of the GDP facilities from USEC to DOE (including DOE activities in support of termination of USEC's NRC license). During this period, the Contractor shall complete all actions specified in the PWS that pertain to preparing for facility transfer of the GDP from USEC to DOE (e.g., field walk downs, validation of lease turnover requirements), development and management of all required programmatic documents, environmental permits, authorization bases, and procedures and complete all engineering, planning and procurement actions necessary to maximize implementation of facility modifications.

3) Facility Deactivation and Infrastructure Optimization Period (Period 3) (Section C.1.3, C.1.4, and C.1.5): This period commences upon facility delease of the Paducah GDP from USEC to DOE and continues through the end of the Task Order. The Contractor shall provide specified utility services to the site's other tenants, complete stabilization and deactivation activities, perform S&M on the shutdown production and associated support facilities, implement planned facility modifications, performing necessary deposit (Greater than Safe Mass), Tc-99, and uranium hold-up material removal activities, optimizing facility systems/structures to minimize short-term and long-term S&M costs.

4) Post-GDP Shutdown Environmental Services Period (Period 4) (Section C.1.6, C.1.7): This period commences 90 days prior to the expiration of the Remediation Contract. During Period 4,the Contractor shall complete transition of all environmental permits from the Remediation Contractor, complete due diligence walk downs of facilities and other areas, complete modification of existing program documents to include the specified environmental remediation services and waste management activities, complete acceptance of authorization basis documents, and complete all other actions necessary to execute the environmental remediation services and waste management activities prior to expiration of the Remediation Contract. The Contractor shall be responsible for execution of all specified environmental remediation services through the end of the Task Order. This also includes design and construction of an on-site waste disposal facility (OSWDF), if selected. (C.1.6)

Objectives

The DOE and the Contractor recognize the Paducah GDP Deactivation is a cooperative undertaking that requires both parties to seek innovative approaches to achieve the end objective. Streamlining and optimizing processes that result in elimination of unnecessary requirements are critical to accomplishing the PWS objectives and targets. The Contractor shall use its best efforts and cooperate in seeking elimination of as many unnecessary requirements as possible while continuing to maintain compliance throughout performance of this Task Order.

- Achieve continuous cost and process improvements and optimization for activities;
- Safely, securely, and cost effectively transferring the Paducah GDP from USEC shutdown status (as defined by the GDP Lease) to minimum necessary S&M and utility O&M under DOE safety bases, while supporting continuity of on-going site cleanup operations;
    - Identify and eliminate systems, processes, etc. that are no longer necessary to maintain safe configuration of the facilities
    - Reduce systems not directly required to maintain safety and environmental compliance;
    - Identify ways to further reduce requirements to perform the most cost effective approach for operations and S&M;

  - Actively pursue activities to re-categorize facilities enabling a minimal level of S&M (e.g., category D to category B, HazCat 2 to Rad Facility, etc.);
  - Operate support facilities at a minimum capacity necessary to safely support site needs

- Develop, finalize and implement approved environmental remediation, demolition, and waste disposal facility CERCLA documents under the Paducah FFA;
- Maintain public and worker safety and health, environmental protection; and
- Reduce the overall DOE Paducah landlord costs

The Contractor shall comply with all applicable Federal, State, and local laws and regulations, Executive Orders, DOE Orders (and other types of Directives), Regulatory Permits, Agreements and Orders and Milestones with the regulators (both State and Federal) (See Section J, Attachment J-1). The Contractor shall provide all deliverables to DOE in accordance with all requirements of this Task Order and those specifically identified in Section J, Attachment J-2. Failure by the Contractor to perform the requirements of this Task Order, meet regulatory milestones or provide documents of sufficient quality to enable acceptance and/or approval on the first draft may result in negative contractor performance ratings and further action by the Designated Contracting Officer (DCO) as allowed for by Section B and other provisions of this Task Order.

While the Contractor has the flexibility to implement a project structure and to sequence the work to optimize the project schedule to achieve safe, cost-effective work/cleanup of the site, the Contractor shall meet all regulatory milestone dates. The Contractor shall develop innovative ideas in order to assist DOE to reduce cost through negotiated agreements with the regulators and innovative approaches to site management and waste minimization. No negotiation or agreement shall be made without DOE notification, participation, and consent.

The PPPO works to ensure EM Goals described in the Office of Environmental Management Performance Agreement with the Assistant Secretary, Section J Attachment J-15 are supported. The goals that are pertinent to this PWS are:
Goal 1: Improve safety and quality performance towards a goal of zero accidents, incidents, and defects and continue to improve the EM Complex-Wide Safety Culture.

Goal 3: Improve project and contract management with the objective of delivering results on time and within cost.

Goal 4: Achieve excellence in management and leadership with the objective of making EM an employer of choice in the Federal Government.

The Contractor shall support and implement actions in furtherance of the “Performance Agreement with the Assistant Secretary” and achievement of the above goals as it relates to the Paducah GDP.

Contractor Performance and Key Requirements

The Contractor shall furnish all personnel, facilities, equipment, material, services and supplies (except as set forth in this Task Order to be furnished by the Government), and otherwise do all things necessary to accomplish work in a safe, secure (pursuant to 10 Code of Federal Regulations [CFR] 824), integrated, effective and efficient manner. The Contractor shall operate and perform deactivation and S&M activities for the facilities, buildings, trailers, and other structures and facilities (OSF) assigned in Table C-1 or transferred from other site contractors as directed by DOE. The Contractor shall be responsible for planning, integrating, managing and executing the programs, projects, operations and other activities as described in this PWS. The Contractor shall develop, implement and maintain a comprehensive, resource-loaded performance baseline as required by Section H and DOE Order (O) 413.3B, and DOE Office of Environmental Management Memorandum "Policy and Protocol for Office of Environmental Management Operations Activities," where applicable. The Contractor shall perform sufficient design work, characterization, end point identification, regulatory approval, risk reduction, etc. to develop a requirements definition for each subproject to allow for firm cost estimating, realistic schedule development, and the development of subcontract procurement packages. Furthermore, the Contractor shall develop and manage the Paducah GDP Deactivation Life-Cycle Baseline.

The Contractor shall provide general operations oversight and project management functions to enable the safe operation of the site. In addition, the Contractor shall be responsible for the operations, environment, safety, health and quality assurance within its own organization and its subcontractors. The Contractor shall provide site health and safety oversight for DOE, DOE technical support contractors and, at DOE's request, other personnel who are on-site in support of the DOE mission at Paducah GDP (e.g., Kentucky Research Consortium for Energy and Environment activities). The other major DOE contractors provide health and safety oversight for their activities. Furthermore, training program reciprocity/facility access between site contractors/tenants is required. The Contractor shall ensure that its technical approach and execution of work is compliant with the applicable statutory and regulatory requirements and shall annually certify to DOE its compliance with environmental requirements. The Contractor shall comply with and provide DOE with services necessary for its compliance with all applicable federal, state, and local requirements and agreements including the protection and preservation of cultural, historic, or archeological resources. The Contractor shall be responsible for all work necessary to obtain regulatory acceptance including legal/regulatory reviews and comment resolution. The Contractor shall recognize and work within the constraints imposed by this Task Order and other regulatory agreements between DOE and regulatory agencies. Regulatory documents include, but are not limited to, all applicable laws, regulations, permits, plans, orders, and agreements.

The Contractor shall maximize efficient and cost effective methods for completing the work scope using the skill sets of the prime contractor as well as subcontractors. When subcontracting work, the Contractor shall use firm-fixed price contracts to the maximum extent practicable and in the best interest of the government.

The Contractor shall integrate all activities with other DOE contractors/tenants in areas of joint interface, such as in coordination of utility lock-out or establishment of work exclusion areas, and shall support DOE with GDP Lease activities.

Table C-1 provides a comprehensive GDP facilities and site services list that shall be updated upon assignment of facilities and/or services by the DCO for performance of this PWS. The Contractor shall be the single point of accountability for the Paducah GDP Deactivation activities, safety and quality assurance programs, regulatory and DOE-EM interface, and project management in performance of this Task Order. The applicable milestones, dates and reference documents for the PWS are provided within each section and/or in Section J, Attachments. The Contractor shall comply with all deliverables dates and all regulatory milestone dates. Regulatory milestone dates can be found in documents such as FFA, SMP, Agreed Orders, Uranium Enrichment (UE), TCSA, and Federal Facility Compliance Agreement (FFCA) and are referenced in Section J, Attachment J-1. Deliverables without specific dates identified shall be established by the Contractor during performance baseline development and throughout the Task Order's period of performance as appropriate for approval by DOE. Changes to regulatory milestones do not alleviate Contractor responsibility to meet contractual or performance baseline milestone dates without specific approval by DOE.

It is anticipated that additional facilities, services, and/or remediation activities may be required by the Government during the performance of this Task Order. One example occurs at PWS Section C.1.6.2 OSWDF Construction. Although considered to be within the general scope of this Task Order, this effort is currently "as authorized by the CO", but may be implemented should the design of the OSWDF be completed. The additional facilities, services and/or remediation activities mentioned are not specifically limited to PWS Section C.1.6.2.

Reference Documents*
*Table is not all inclusive applicable regulatory documents.

General Project Reference Documents	
Document Number	**Title**
DOE/OR/07-1707	Paducah Gaseous Diffusion Plant Federal Facility Agreement
DOE/OR/07-2099&D2R7	Community Relations Plan, July 2011
DOE/OR/07-1595&D2	Data and Documents Management and Quality Assurance Plan for Paducah Environmental Management and Enrichment Facilities, September 1998
DOE/OR/07-0107&D2/R1/V1 DOE/LX/07-0107&D2/V2	Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Volume 1. Human Health and Volume 2. February 2011, Ecological, August 2010
Office of Environmental Management Memorandum	Policy and Protocol for Office of Environmental Management Operations Activities, March 15, 2012

General Project Reference Documents	
Document Number	**Title**
No document number	Training Reciprocity Agreement Between Portsmouth/Paducah Project Office Prime Contractors (example)
DOE/LX/07-1284&D2	Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision-FY 2013, December 2012
No document number (Previously issued as POEF-090-95-050 GDP Lease)	Lease Agreement Between The U.S. Department of Energy And The United States Enrichment Corporation, July 1, 1993
BJC/PAD-688/R1	Cultural Resources Survey for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, March 2006

C.1.1 Task Order Implementation

Task Order Implementation activities to be performed include, but are not limited to: Within 24 hours following a NTP, the Contractor shall release on its own website a brief Executive Summary of its offer. The purpose of this Executive Summary is to provide immediate release of relevant information to stakeholders and the public at large. The Contractor shall complete mobilization of its management team, including business/human resources within 30 days after NTP.

The Contractor shall submit an Implementation Plan for DOE approval 15 days after NTP. The Implementation Plan shall include a description of all activities necessary to execute all sections of the PWS, involved organizations, and schedule. The primary focus shall include those key activities necessary to complete turnover of the GDP facilities from USEC, the facility modifications and the activities necessary to reduce hotel load associated with long term S&M. Coordination with other site contractors/tenants is required to ensure for continuation of services by the Contractor as identified in the Section J, Attachment J-5, Government Furnished Services and Interface Requirements Matrix. The Plan must ensure there is no loss or degradation of the services that are provided to DOE and its contractors/tenants. The Contractor is responsible for performing due diligence to ensure that all activities are identified and completed during the Task Order Implementation Period.

The Contractor shall provide weekly Implementation Status Reports to DOE until Task Order Implementation is completed. The Contractor shall establish routine status meetings with DOE and affected contractors to review Implementation activities and issues.

The Contractor shall submit an Interim Performance Baseline (PB) for DOE approval 90 days after NTP that details the work activities to be performed while the PB is being evaluated and approved by DOE.

Table C.1.1 Task Order Implementation Milestones/Schedule	
Milestone	**Date**
Executive Summary Placed on Website	24 hours after NTP
Complete mobilization of management team	30 days after NTP
Submit Task Order Implementation Plan	15 days after award
Submit Interim Performance Baseline	90 days after NTP

C.1.2 Project Management

C.1.2.1 Pre-Delease Planning and Facility Transfer

The Contractor shall perform all activities to support de-lease of facilities, including, but not limited to, facility walkdowns, engineering and design, procurement, development of safety authorization basis, programmatic and operational documents and procedures, assisting DOE in verifying whether lease turnover requirements have been met prior to the facility transfer date in accordance with the Lease Agreement. These actions shall also include evaluation and verification to confirm that deposit removal was completed in accordance with the USEC Lease Agreement.

During the Pre-Delease Planning and Facility Transfer Period, the Contractor shall identify any material differences in the systems, facilities, waste sites, property and services described in this Task Order and actual conditions prior to the end of the period. The Contractor shall prepare and submit a Statement of Material Differences. If the Material Differences require revisions to the Task Order, the Contractor will submit a change proposal in accordance with Section I, Changes-Cost Reimbursement, to reconcile the material differences with the Task Order.

C.1.2.1.1 Facility Walkdowns

The Contractor shall support DOE in interactions with USEC for facility delease and transfer. The Contractor shall develop a Facility Transfer Plan identifying facility/system–specific transfer requirements checklists and assessments of facility transfer and acceptance readiness based on law, DOE Orders, the Lease, and applicable regulations. The purpose for these checklists is two-fold; the checklists shall serve as the basis by which to document the safety and regulatory status of the facilities and whose action it will be to bring the facilities into compliance prior to facility transfer. The checklist shall serve as the basis for documenting USEC's compliance with lease turnover requirements and the basis to which DOE will accept the facilities back from USEC. The Contractor shall ensure that all requirements are identified, and roles and responsibilities are clearly defined. These checklists shall be reviewed and approved by DOE prior to use. Utilizing the developed checklists, the Contractor shall evaluate facility and system operational histories, document compliance status of waste storage areas and tanks, review facility records (e.g. environmental data, NDA data, structural drawings, operating records, etc.) and conduct interviews, and perform/document facility walkdowns. Any safety and health or environmental non-compliance identified post-GDP turnover are the responsibility of the

Contractor. These walkdowns may be performed in conjunction with USEC and may also serve as the basis for determining what items USEC is responsible for dispositioning as waste and which items are personalty that USEC is entitled to leave behind. Each facility and all realty planned for return to DOE by USEC shall be walked down. The Contractor shall make recommendations to DOE regarding readiness to accept the transfer of the facilities from USEC.

Table C.1.2.1.1 Facility Walkdowns Milestones/Schedule	
Milestone	**Date**
Facility Transfer Plan	60 Days after NTP
Complete Facility Walkdowns	30 Days prior to Facility Delease
Submit completed detailed checklists	75 Days after Facility Delease

C.1.2.1.2 Nuclear Criticality Safety Program

As part of the facility walkdowns and preparation for facility delease, the Contractor shall complete and document a review of the USEC Nuclear Criticality Safety Evaluations and other relevant documents to determine if the methods and characterization requirements related to radioactive and chemical materials remaining within the process equipment support the turnover requirements in the GDP Lease. Based on this review and evaluation, the Contractor shall identify whether the characterization data provided by USEC to comply with the Lease is sufficient. If not sufficient, prepare and submit a GAP Analysis report with associated recommendations.

Table C.1.2.1.2 NCS Program Milestones/Schedule	
Milestone	**Date**
Provide GAP Analysis and Associated Recommendations	120 Days after NTP

C.1.2.1.3 Facility Characterization Program

The Contractor shall develop Data Quality Objectives (DQO) that supports the transfer and deactivation of facilities. Characterization data used to support DQOs shall be in compliance with Quality System for Nondestructive Assay (QSNDA). The Contractor shall consider different assumptions associated with varying usage and upgrades of equipment within the cascade and vary based on the type of contamination (i.e., Technetium-99, fissile, uranium, and other contaminants). The DQOs should consider different scenarios for holdup locations by main process building (i.e., C-331, C-333, C-335, C-337, C-310, and C-315) or other appropriate grouping. The Contractor shall optimize and limit the characterization requirements with respect to cost of characterization to that necessary to support placing the GDP facilities into safe, compliance, long-term S&M. Any additional characterization that might be used to support future D&D activities must be specifically approved by the COR prior to implementation.

The Contractor shall develop a characterization schedule to include development of characterization plans and associated characterization events, sequenced appropriately to build on information as it's collected. Characterization plans shall be submitted for DOE COR approval that considers the use of existing data sets (USEC operational history and data, NDA data, historical sampling) and the appropriate points of reference (similar data sets associated with systems at Portsmouth and Oak Ridge) and supports the DQOs established above. The plans shall include, but are not limited to the baseline contaminants within systems, based on data and available information.

The Contractor shall ensure that characterization programs are in place that:

- Develop and implement the characterization techniques, criteria, and data required to support the Task Order activities
- Identify the NCS limitations and constraints associated with the different methods of accomplishment for performing Task Order activities and factor the limitations and constraints into the project execution
- Development and maintenance of record keeping systems that store characterization data per DOE O 243.1

The Contractor shall develop and/or modify existing Non-Destructive Assay (NDA) Program/Procedures to comply with DOE O 414D QSNDA. The Contractor shall ensure the NDA programs are developed and implemented in accordance with Quality Assurance requirements (10 CFR 830, subpart A, DOE O 414, DOE/PPPO/03-0235 Portsmouth/Paducah Project Office Quality System for Nondestructive Assay (QSNDA) Characterization) and are optimally integrated with other characterization programs (including sampling and analysis). The Contractor shall submit a QSNDA Plan to DOE for approval.

Table C.1.2.1.3 Facility Characterization Program Milestones/Schedule

Milestone	Date
NDA Program/Procedures, including QSNDA Plan	120 After NTP
Characterization Schedule for development of individual sampling plans	30 Days After Facility Delease

C.1.2.1.4 Procedures and Work Planning and Control

The Contractor shall review the USEC procedures, program and performance documents, and accept, modify, or develop, as necessary, for compliance performance per DOE Order requirements and all applicable laws and regulations. The Contractor shall also develop and implement a work planning and control process in accordance with DOE O 412.1A, Work Authorization System, for Task Order activities in support of acceptance of the GDP facility. As part of the S&M, the Contractor shall eliminate all bluesheeted procedures and performance documents and implement procedures and performance document in compliance with DOE Orders. The Contractor shall evaluate its operational activities and provide DOE a schedule for eliminating blue-sheeted procedures that minimizes costs and prevents unnecessary work.

Table C.1.2.1.4 Procedures and Work Planning and Control Milestones/Schedule	
Milestone	**Date**
Schedule for Eliminating Blue-sheeted procedures	90 Days After Facility Delease
Eliminate all bluesheeted procedures and performance documents	As stated in the schedule approved by DOE

C.1.2.2 Project Support

The Contractor shall provide all project support activities and resources necessary during the entire period of performance of this Task Order. These support resources include, but are not limited to, the Deactivation Program Manager, the project management team, and associated support office (e.g., Administrative, QA, HR, Business, Project Controls, Safety, Nuclear Safety, etc.).

The Contractor shall provide all necessary support for a smooth transition at the end of the Task Order. Six (6) months prior to the expiration of the Task Order, the Contractor shall submit the Task Order Close-out Plan for DOE approval. The Task Order Close-out Plan shall include all remaining administrative matters necessary to close out the Task Order, including, but not limited to: resolution of remaining and open agreements, resolution of remaining and open litigation; audit of indirect costs; remaining records disposition required by the Government; or any other activities required by the Task Order. The Plan shall identify if the costs are direct or indirect and how they will be charged.

C.1.2.2.1 Project Planning, Integration and Interface

The Contractor shall be responsible for the planning and integration of all site-wide, cross-cutting activities necessary for performance of this Task Order. These activities include, but are not limited to, the following:

C.1.2.2.1.1 Planning and Integration

The Contractor shall be responsible for assisting DOE in the planning and integration of the Paducah GDP Deactivation project activities. Upon Facility Transfer of the GDP from USEC, the Contractor shall manage and host the Shared Site Process meetings.

The Contractor shall establish, appropriately document, and manage interfaces in accordance with the Section J, Attachment J-5, Government Furnished Services and Interface Requirements Matrix. The Contractor shall update the matrix, as appropriate, consistent with the approved changes that may occur during the Task Order period.

The Contractor shall ensure that Long-Term Stewardship (LTS) issues are considered in the planning and execution of the activities described in this PWS to (1) ensure the site's successful transition to future LTS, and (2) assist DOE with LTS planning, transition coordination, and communication with all involved parties, including local stakeholders and regulators.

The Contractor shall ensure that issues associated with the transfer or leasing of land, facilities, and other assets from DOE to other parties are considered in the planning and execution of the PWS.

C.1.2.2.1.2 Regulatory Planning

The Contractor shall provide DOE with its expert knowledge and services to support DOE's interaction with regulators, the development and implementation of regulatory strategies, and the public comment process related to required regulatory documents and agreements.

The Contractor shall prepare regulatory documents including, but not limited to, CERCLA documentation and/or RCRA documents required per the regulatory agreement(s) for the Paducah GDP Deactivation project.

The Contractor shall develop the necessary CERCLA documentation culminating in regulatory decision documents such as Action Memoranda and Record of Decision(s) (ROD), and develop the necessary subsequent work plans under the agreed-upon CERCLA process for the post-GDP remediation, facilities D&D, demolition, and waste disposition, including a potential OSWDF, if approved.

In addition, the Contractor shall be responsible for developing and coordinating all regulatory documentation necessary to support other on-site activities (e.g., sampling, monitoring, waste treatment, disposal, storage).

C.1.2.2.1.3 Sitewide Interface

It is critical for the success of the Paducah GDP Deactivation project activities that the Contractor shall coordinate and interface with other site contractors while performing the work in accordance with Section J Attachment J-5, Government Furnished Services and Interface Requirements Matrix. The attachment identifies the key specific tasks and services that require interface and coordination with other site entities. It may not represent all of the necessary interactions; therefore, the Contractor shall reach agreement with other site entities on any other necessary interfaces and/or the provision of services for the performance of the contractor's work. The Contractor shall plan for and support transition to any follow-on contractor.

C.1.2.2.2 Project Management System

The Contractor shall perform all activities to develop and maintain a project management work control system in accordance with Section J, Attachment J-9, Integrated Contractor Work Control Systems and Reporting Requirements (July 2012), Section H.109, and clause H.2, FAR 52.234-4, Earned Value Management System (JUL 2006).

The Contractor shall ensure the PB remains aligned with the Task Order terms to include scope, cost and schedule. The Contractor shall ensure timely response to Task Order modifications and declaration of changed conditions, through the submission of appropriate technical and cost proposals to maintain alignment of the PB with the Task Order. The Contractor shall provide all management and technical information to:

- Support the budget formulation activities including, but not limited to, emerging work items list; budget formulation input (including Integrated Priority List), fall limited budget update submission, budget scenario development, and, budget presentations (such as public and regulatory briefings, etc.);
- Meet the data requirements of the DOE Integrated Planning, Accountability and Budgeting System;
- Support audits, evaluations, and external technical reviews; and
- Support other DOE project performance assessments and information needs.

All project management information developed under this Task Order shall be provided electronically or be electronically accessible by DOE. In support of the Paducah Integrated Site-wide Federal Lifecycle Baseline, the Contractor shall provide the interim and performance baseline information to the ETS Contractor, or other DOE prime contractor, as designated.

C.1.2.2.3 Environment, Safety, Health, and Quality

The Contractor shall perform all activities to:

a) Conduct all activities required for compliance with applicable laws, regulations, permits, agreements and Orders, and DOE Directives including those listed in Section J, Attachment J-1. The Contractor's Environment, Safety and Health (ES&H) program shall be operated as an integral, but visible, part of how the Contractor conducts business. This includes, but is not limited to: prioritizing work planning and execution; establishing clear ES&H priorities; allocating resources to address programmatic and operational considerations; and correcting non-compliances and addressing all hazards for all facilities, operations, and work. The Contractor shall ensure that cost reduction efforts and efficiency efforts are fully compatible with ES&H performance.
b) Take all actions necessary to preclude serious injuries and/or fatalities; keep worker exposures and environmental releases as low as reasonably achievable and below established limits; minimize the generation of waste; maintain or increase protection to the environment; and maintain or increase public and worker safety and health.
c) Submit a Chronic Beryllium Disease Prevention Program consistent with 10 CFR 850 for DOE review and approval. A study has been completed characterizing the levels of Beryllium within the site (BJC/PAD-581) and shall be considered by the Contractor in the development and implementation of a Chronic Beryllium Disease Prevention Program.
d) Ensure adequate access to health programs/ambulatory care, and beryllium and radiation worker health surveillance programs. 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.
e) The Contractor shall maintain a trained workforce necessary for performance of this Task Order. The Contractor shall also attend all site specific training (provided by the Infrastructure Contractor) necessary for site access,

including but not limited to, Consolidated Annual Training, Radiation Worker I and II, General Employee Training, Annual Security Refresher, Workplace Violence Prevention, Diversity Awareness, Employee Conduct Training, Business Ethics/Standards of Conduct, and Fire Extinguisher Training, DOE Orders/Work Smart Standards and ISMS. The Contractor shall be responsible for any job specific training necessary to implement the PWS activities.

f) The Contractor shall establish a training program for implementation of a compliant program in accordance with DOE Order 426.2 requirements and all applicable laws and regulations in support of the work performed under this Task Order. The Contractor shall track its employees training status and notify employees of training needs (this includes training provided by other site contractors). Training records shall be maintained and retrievable for current employees. The Contractor shall coordinate with other site contractors to consolidate training modules, where practicable.
g) The Contractor shall perform work in accordance with 10 CFR 851. The Contractor's safety program requirements shall include hazard analyses, work permits (as applicable), industrial hygiene monitoring, and trained safety professionals. The Contractor shall manage and perform work in accordance with a documented worker safety and health plan approved by DOE prior to commencement of work.
h) The Contractor shall prepare an Activity Specific Health and Safety Plan and Job Hazards Analysis as needed as part of the overall project safety program. Copies of these documents will be provided to DOE for information.
i) Provide safety and health Personal Protective Equipment for both the Contractor and DOE employees. The Contractor shall be responsible for the subsequent decontamination and disposal of such PPE.
j) Complete a comprehensive environmental compliance due diligence review 45 days prior to expiration of the Remediation Contract to identify noncompliances in facilities/realty that are being transferred to the Contractor from the Remediation Contractor. Certify the results of the review and provide a copy of the report to DOE no later than 30 days prior to the expiration of the Remediation Contract.
k) Provide investigations and support for ES&H issues/effects resulting from the historical "Work for Others Program". The Contractor may encounter materials and historical information that references a "Work For Others Program; these materials may include classified information. The potential implications shall be addressed consistent with security requirements.
l) Provide non-emergency spill contamination, clean-up, and other post-emergency response activities. Spills could include, but not be limited to, diesel fuel, oils containing PCBs, and radioactive contamination.
m) Provide programmatic and oversight support to other DOE support personnel/contractors (e.g., technical support contractors, Kentucky Research Consortium for Energy and Environment demonstration projects on DOE property) as requested by DOE.
n) The Contractor shall manage the Site-wide Integrated Lock & Tag Program and ensure lock-out/tag-out is properly coordinated with other site contractors. The Contractor shall implement a compliant lock-out/tag-out program in accordance with DOE-STD-1030-96 and all applicable

regulations. Each of the site's contractors is required to participate in this Site-wide Integrated Lock & Tag Program.

o) The Contractor shall provide medical screening of the DOE field office personnel if required to enter the work areas and meet the requirements of the Worker Safety and Health Program (10 CFR 851), or Radiological Protection Program (10 CFR 835).

Table C.1.2.2.3 Environment, Safety, Health, and Quality Milestones/Schedule	
Milestone	**Date**
Submit a Chronic Beryllium Disease Prevention Program consistent with 10 CFR 850	60 days after NTP
Certify and submit the results of the comprehensive environmental compliance due diligence review	45 days prior to expiration of the Remediation Contract

C.1.2.2.3.1 Integrated Safety Management System

The Contractor shall develop and implement an ISMS Program that complies with the Section I Clause DEAR 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution, DOE O 450.2 and DOE O 436.1. The Contractor's ISMS program shall ensure all work is performed safely and in a compliant manner that assures the workers, public, and environment are protected from adverse consequences. To continuously improve the ISMS, the Contractor shall perform annual ISMS effectiveness reviews and submit an annual declaration to DOE along with any changes needed to the ISMS Description. The initial ISMS program must be approved by DOE prior to facility delease. The ISMS program shall be subject to an annual verification review by a DOE chartered ISMS verification team.

The ISMS program shall include a lessons learned program that is compliant with DOE Orders. The lessons learned program shall be structured to identify and apply available lessons in safety, quality and performance to this project as well as to capture, document, and provide lessons learned from this project for future application by others.

The Contractor shall prepare an ISMS description to implement the Contractor's ISMS within 90 days after NTP. The ISMS Program Plan shall identify how the Contractor will maintain compliant and safe operations by integrating safety and health into all activities including environmental compliance. The ISMS Program Plan shall integrate DOE O 436.1, Departmental Sustainability.

Existing safety programs required to support Task Order activities after facility transfer should be evaluated (such as Lock-out/Tag-out Program, hoisting and rigging program, etc.).

Table C.1.2.2.3.1 Integrated Safety Management Program Milestones/Schedule	
Milestone	**Date**
Submittal of ISMS Program Plan	30 Days Prior to Facility Delease
Submit ISMS Description	90 days after NTP

C.1.2.2.3.2 Safety Authorization Basis

The Contractor shall comply with 10 CFR 830 and have programs and procedures that implement the requirements. The Contractor shall develop documented safety analysis and safety basis documentation compliant with 10 CFR 830 and DOE STD 1027. To the extent practical, the safety basis documents shall be prepared using the existing information from the USEC safety basis documents. The Contractor shall obtain DOE approval of the safety basis documents prior to acceptance of the facilities. The Contractor shall update and maintain the safety basis documents in a manner that supports the work required by the Task Order and consistent with DOE Orders and applicable requirements.

Table C.1.2.2.3.2 Safety Authorization Basis Milestones/Schedule	
Milestone	**Date**
Submittal of Safety Basis Documents	60 days prior to Facility Delease

C.1.2.2.3.3 Nuclear Criticality Safety

The Contractor shall develop a Nuclear Criticality Safety (NCS) Program/Procedures to comply with DOE O 420.1B and implement the following standards including, but not limited to:

- DOE-STD-3007, Guidelines for Preparing Criticality Safety Evaluations at Department of Energy Non-Reactor Nuclear Facilities;
- DOE-STD-1134, Review Guide for Criticality Safety Evaluations, American National Standards Institute (ANSI)/American Nuclear Society (ANS)-8.3-1997, Criticality Accident Alarm System;
- DOE-STD-1158, Self-Assessment Standard for DOE Contractor Criticality Safety Programs;
- DOE O 5480.20A, Personnel Selection, Qualification and Training Requirements for DOE Nuclear Facilities; and
- ANSI/ANS-8.3-1997.

The NCS Program shall be described in safety basis documents in accordance with 10 CFR 830, Nuclear Safety Management. The Contractor shall be responsible for implementing and maintaining any necessary safety basis documents. The Contractor shall ensure proper implementation of Nuclear Criticality Safety Program on an annual basis by performing annual surveillances as required by ANSI/ANS-8.19, *Administrative Practices for Nuclear Criticality Safety* (required by DOE O 420.1B).

The Contractor shall operate the material storage areas and facilities in accordance with appropriate safety basis documents, as well as applicable legal and regulatory requirements.

Table C.1.2.2.3.3 Nuclear Criticality Safety Program Milestones/Schedule	
Milestone	**Date**
Submittal of Nuclear Criticality Safety Program	60 days prior to Facility Delease

C.1.2.2.3.4 Radiation Protection, Radiological Site Services

The Contractor shall develop and implement a Radiation Protection Program (RPP) in compliance with 10 CFR 835 and DOE Order 458.1. Additionally, radiological postings shall be transitioned from USEC (10 CFR 20 NRC) control to DOE 10 CFR 835 control. Management of radioactive sources received from USEC during facility transfer, or any other radioactive source the Contractor is responsible for shall be fully compliant with the RPP and DOE requirements upon possession or management of the sources.

The Contractor shall develop and implement its own radiological site services (RSS) programs. In the RSS programs, the Contractor shall include all dosimetry, data, and records necessary to demonstrate compliance with the required radiological monitoring and to verify the adequacy of site radiological control programs in protecting the health and safety of workers, the public, and the environment. The Contractor shall provide radiation dosimetry (Thermoluminescent Dosimeters/Personal Nuclear Accident Dosimeters) and bioassays as required by 10 CFR 835 for its employees and site visitors. The Infrastructure Contractor shall perform calibration and maintenance of all monitoring and surveying equipment as required by 10 CFR 835. The Contractor shall perform radiological surveys as needed for its work.

The Infrastructure Contractor shall manage the Paducah External Dosimetry Program, Paducah Internal Dosimetry Program, Paducah Radiological Instrumentation Program, and the Paducah Radiological Records Program and provide dosimetry and bioassay sampling as a Government Furnished Service. However, the Contractor's RSS Program shall be consistent with the Paducah site programs.

Table C.1.2.2.3.4 Radiation Protection Program Milestones/Schedule	
Milestone	**Date**
Submittal of the Radiation Protection Program and Environmental Radiation Protection Program	60 days prior to Facility Delease
DOE 10 CFR 835 compliant radiological postings	180 days following Facility Delease

C.1.2.2.3.5 Emergency Management & Fire Protection Program

The Contractor shall develop and manage the Paducah Site Emergency Management Program in compliance with the DOE order requirements. Per DOE O 151.1C, Comprehensive Emergency Management System, the Contractor shall implement comprehensive emergency management requirements, as they apply to the site/facility/activity, commensurate with the hazards present. General requirements shall include the development and implementation of a Comprehensive Emergency Management System designed to:

- Minimize the consequences of all emergencies involving or affecting facilities and activities (including transportation operations/activities);
- Protect the health and safety of all workers and the public from hazards associated with site operations and those associated with decontamination, decommissioning, and environmental restoration;
- Prevent damage to the environment; and
- Promote effective and efficient integration of all applicable policies, recommendations, and requirements, including Federal interagency emergency plans. Exemptions for two-level (site area emergency and alert) emergency classification shall be maintained (versus a three-level required by DOE O 151.1C).

Activities shall include, but are not limited to:

- Provide initial and refresher EOC and Joint Public Information Center (JPIC) training for DOE and DOE Prime Contractors/Subcontractors as needed. Develop and implement a site wide emergency exercise/drill program in compliance DOE Orders, with support from other DOE Prime Contractors/Subcontractors as needed.
- Ensure sufficient resources are available to provide emergency response compliance with DOE Orders for the entire site, (Fire Operations, Emergency Squad, Emergency Operations Center, & Joint Public Information Center) including capabilities of: fire, rescue, technical rescue, HAZMAT, medical response and the capability to notify employees and offsite personnel of an emergency to facilitate safe protective actions. Ensure the proper identification, categorization/classification, notification, and reporting of emergencies to the DOE Paducah office, PPPO Manager, the Headquarters Emergency Operations Center and other organizations in accordance with applicable DOE policies and requirements.
- Ensure recovery procedures are available that include termination of emergency, and the dissemination of information to Federal, State, Tribal, and local organizations regarding the emergency and possible relaxation of public protective actions; planning for decontamination actions; establishment of a recovery organization; development of reporting requirements; and establishment of criteria for resumption of normal operations.

The Contractor shall develop and submit documentation to establish Emergency Planning Zone; Hazard Surveys, Emergency Planning Hazard Assessments

(EPHA), Emergency Plans that document comprehensive emergency management programs; and Emergency Readiness Assurance Plans. The Contractor shall also develop and implement Emergency Action Levels (EALs) and protective actions, review and implement EALs and protective actions from other contractors/subcontractors.

The Contractor shall integrate emergency public information planning with the development and maintenance of the Paducah Site Emergency Plan. Maintain a coordinated off-site emergency management Interface with state, local, or tribal organizations responsible for off-site emergency response and protection of the public. Submit copies of all Mutual Aid Agreements and contracts for offsite assistance, annually, to DOE-PPPO. When any changes occur in Mutual Aid Agreements and contracts, the Contractor must notify DOE of the changes in writing by the end of the next working day and provide copies of the revised Mutual Aid Agreements and contracts.

Develop a Readiness Assurance program that meets the requirements of DOE Order 151.1C and provides assurances that emergency plans, implementing procedures, and resources are adequate and sufficiently maintained, exercised, and evaluated, and that improvements are made in response to identified needs.

The Contractor shall implement and manage a site-wide (covering the other site tenants/contractors) Fire Protection Program that complies with CRD O 420.1B, NFPA and OSHA 1910.146.

The Contractor shall maximize the use of local community medical, fire/emergency response where overall cost-effective to respond in a timely and effective manner. The Contractor may, upon approval by DOE, utilize grants, equipment transfer and realty transfers to the local community to ensure compliance with DOE Orders for adequate services. If the local emergency response capability is deemed insufficient, appropriate compensatory measures shall be implemented to address baseline needs. The Contractor shall provide to DOE an optimization plan for medical, fire and emergency response services within 90 days of NTP.

The Contractor shall replace the bridge on McCall Road (if required and authorized by the CO) to ensure response time from off-site providers meets DOE requirements. Any costs associated with the bridge replacement (or other similar actions) must be considered in any cost/benefit analysis evaluating the use of off-site fire/emergency response services.

The Contractor shall provide site-wide (involving site tenants/contractors) fire education, fire protection system inspections, testing and maintenance, fire investigations, fire department and emergency response, notifications, special hazard identifications, etc. Fire protection system inspection, testing and maintenance shall include a fire protection system impairment strategy. Fire protection systems in facilities shall be inspected, tested and maintained in accordance with National Fire Protection Standards.

The Contractor shall be responsible for providing a Fire Protection Plan and Fire Hazard Analyses (FHA). A Baseline Needs Assessment (BNA) shall be prepared including details regarding Contractor fire response capabilities including mission responsibilities, personnel, apparatus, equipment, facilities, programs, incident reporting, etc.
It is recognized that the size and capability of emergency response, including fire protection, programs and facilities are dependent on operational activities at the site. The Contractor shall develop these programs/documents with automatic triggers that eliminate requirements as the status of the GDP facilities moves toward shutdown and isolated status.

Table C.1.2.2.3.5 Emergency Management and Fire Protection Milestones/Schedule

Milestone	Date
Submittal of Optimization Plan for Medical, Fire and Emergency Response Services	90 days after NTP
Submittal of Paducah Site Emergency Management Program Plan	60 Days Before Facility Delease
Completion of Contractor Readiness Assessment for Emergency Management Program	15 Days Before Facility Delease
Submittal of Paducah Site Emergency Plan and other required secondary documentation such as EALs, EPHAs, Hazard Surveys, etc.	30 Days Before Facility Delease
Submittal of Fire Protection Plan and Fire Hazard Analysis	30 Days Before Facility Delease
Submittal of Emergency Management and Fire Protection Baseline Needs Assessment	60 Days Before Facility Delease

C.1.2.2.3.6 Quality Assurance/Quality Control

The Contractor shall comply with 10 CFR 830, other regulations affecting Quality Assurance (QA) and DOE O 414.1D and implement a DOE-approved Quality Assurance Program (QAP) in accordance with the EM Quality Assurance Program, EM-QA-001, prior to commencement of work affecting nuclear safety.

American Society of Mechanical Engineers NQA-1, 2004, *Quality Assurance Requirements for Nuclear Facility Applications*, and addenda through 2007 shall be implemented as part of the Contractor's QA Program for work affecting nuclear safety. The required portions of NQA-1 to be implemented include: Introduction, Part I, and as applicable portions of Part II. NQA-1 Parts III and IV are to be used as guidance for the Contractor's QAP and implementing procedures.

The Contractor's QAP shall describe the overall implementation of the EM QA requirements and shall be applied to all work performed by the Contractor (e.g., research, design/engineering, construction, operation, budget, mission, safety, and health).

The Contractor shall develop and implement a comprehensive Issues Management System for the identification, assignment of significance category, and processing of nuclear safety-related issues identified within the Contractor's organization. The Contractor shall, at a minimum, annually review and update the QAP as appropriate. The confirmation of the review and any changes shall be submitted to DOE for approval.

Table C.1.2.2.3.6 Quality Assurance/Quality Control Milestones/Schedule	
Milestone	**Date**
Submittal of the Quality Assurance Plan	30 days prior to Facility Delease

C.1.2.2.4 Regulatory Compliance and Permits

The Contractor shall coordinate with other site contractors to prepare appropriate transmittals and applications for transfer of all necessary operating and environmental permits, agreements, licenses, contracts, etc. from USEC to DOE owned/contractor operated facilities, systems, or processes. The Contractor shall coordinate with other site contractors to incorporate the required permitted activities into site-level permits such as, but not limited to, the Kentucky Pollutant Discharge Elimination System (KPDES) and the Facility Hazardous Waste Permit, where appropriate. The Contractor shall evaluate all current permits and agreements necessary for performance of this Task Order.

The Contractor shall modify the KPDES permit (KY0004049) to add the following USEC outfalls to the DOE outfalls and will include the Contractor as a co-permittee:

- 002, 004, 006, 008, 009, 010, 011, 012, 013, and 016.

The Contractor shall modify the Facility Hazardous Waste Permit (KY8-890-008-982) to include the Contractor as a co-generator.

The Contractor shall apply for or transfer other necessary permits, such as, but not limited to:

- Utah Generator Site Access
- Tennessee Radioactive-Waste-License-for-Delivery
- Ohio River Water Withdrawal Permit
- Waste Treatment Registration
- Clean Air Act Title V Permit
- Underground Storage Tank Registration for two fuel tanks
- Toxic Release Inventories

Prior to acceptance of the facilities from the Remediation Contractor, the Contractor shall submit a permit modification to the KPDES permit to show responsibility for all the outfalls and also must submit a permit modification to show DOE as the owner and the Contractor as the operator for the Facility

Hazardous Waste Permit (KY8-890-008-982) and the Contained Landfill Solid Waste Permit (073-00045). The Contractor shall also modify any other permits in use by the Remediation Contractor to include the Contractor as the operator.

The Contractor shall:

- Establish and document an environmental program that is compliant with all applicable laws, regulations, and DOE directives (including DOE O 436.1, Departmental Sustainability); and
- Comply with all existing regulatory agreements and permits and renew existing permits and/or obtain new permits as necessary.
- Comply with the terms of the FFA and other regulatory permits and agreements in place for Paducah GDP. The regulatory process for evaluating and selecting the approaches for D&D, demolition, and waste disposition will include stakeholder participation.

The Contractor shall comply with the following, but not limited to:

- Paducah GDP FFA, DOE/OR/07-1707
- TSCA FFCA, 1992, as amended;
- RCRA Part B Storage Permit;
- Director's Final Findings & Orders for DUF_6 (for small cylinders), 2005.
- Any other statutory or regulatory documents including, but not limited to, other applicable environmental laws, regulations, agreements, orders, permits, or consent decrees.
- Site Treatment Plan Agreed Order, 9/10/97, Commonwealth of Kentucky File Number DWM-30039-042

The Contractor shall evaluate the short-term and long-term costs and needs associated with operation of the site's permitted waste storage facilities and treatment operations and develop a plan for closure of the facilities. The plan shall consider alternatives to include suspending use of the facilities/operations to eliminate permit requirements and associated costs until the facilities might be needed in the future. Upon approval of the plan, the Contractor shall implement closure activities. DOE approval is required prior to implementation.

Table C.1.2.2.4 Regulatory Compliance and Permits Milestones/Schedule

Milestone	Date
Submit all permit modifications to DOE	60 days After NTP
Submit all permit modification to regulatory agencies	60 Days prior to Facility Delease
Submittal of the TSDF Operations Needs Analysis and Closure Proposal	January 31, 2015
Initiate Implementation of the Closure Proposal	August 1, 2015

C.1.2.2.5 Sampling and Data Management

The Contractor shall:

- Collect, evaluate, and manage the characterization data generated during Task Order performance, including performing sampling and analysis of all media, managing samples and analytical data, and validating analytical data;
- Maintain, input, create reports, and complete all other activities necessary to manage environmental data generated by the Contractor's activities. Ensure the data is current, complete, and compliant with Task Order requirements. This includes utilizing site databases (e.g., Oak Ridge Environmental Information System (OREIS), Geographical Information System, Paducah Project Environmental Measurement System (Paducah PEMS)) - or included as part of any regulatory agreement(s); and
- Perform all activities per the appropriate regulatory requirements to ensure the project objectives are met including, but not limited to:
  - Chain of Custody,
  - Data Quality Objectives,
  - Sampling and analytical methods, and
  - Sample Analysis, data management, and reports.

C.1.2.2.6 Continuity Programs

The Contractor shall develop implement, and update, as necessary, a Site Wide Continuity of Operations (COOP) Program per DOE Order 150.1. The Contractor shall develop and implement a COOP Implementation Plan or Business Recovery Plan that documents the COOP Program. The COOP program is designed to:

- Assist the Department in continuing to accomplish Departmental mission essential functions (MEFs), primary mission essential functions (PMEFs), and essential supporting activities (ESAs);
- Be integrated with the Emergency Management Program;
- Address preparedness and response to epidemic and pandemic events.

C.1.2.2.7 Environmental Monitoring and Reporting

The Contractor shall support activities required for environmental monitoring and reporting for the Paducah GDP Deactivation project. The Remediation Contractor shall provide environmental monitoring and make data available to the Contractor to reporting, tracking, trending, and evaluation of enforcement and compliance activities associated with environmental media. The Contractor shall prepare environmental permits, licenses and applications. In compliance with the regulatory agreements, the Contractor shall support environmental monitoring programs, including reports, maintenance, repair, and operation of all CO assigned monitoring systems and stations. In addition, consistent with the DOE O 231.1A, Environment, Safety and Health Reporting and DOE O 458.1,

Radiation Protection of the Public and Environment, the Contractor shall be responsible for collecting, compiling, and/or integrating data, reporting and documentation of environmental media obtained from operations and other activities to provide input to the Annual Site Environmental Report and the annual National Emissions Standards for Hazardous Air Pollutants report. Upon transition of the Remediation Contract work activities, the Contractor shall implement all aspects of the Environmental Monitoring and Reporting scope in Section C.1.7.5.

C.1.2.2.8 Safeguards and Security

C.1.2.2.8.1 Security Program

The Infrastructure Contractor is the Contractor Cognizant Security Authority (CCSA) at the Paducah site and considered to be the ODSA pursuant to DOE O 473.3. As such, it has the primary role for security functions for DOE operations consistent with the scope of the Infrastructure Contract. The CCSA maintains the Site Security Plan for all DOE operations at the Paducah site and shall prepare physical security plans and vulnerability assessments in support of all DOE programs (e.g., physical security, site visits, etc.). Physical security plans supporting work required by this Task Order shall be prepared by the CCSA in consultation with the Contractor which shall also be a signatory to the documents. If specific subject matter experts are not resident within the CCSA, the Contractor shall (with the appropriate subject matter expert on staff) draft the specific plan and coordinate activities with the CCSA. The CCSA is responsible for providing a site consolidated report on security infractions to DOE and provides personnel security and badging services for DOE Contractors at the site. The CCSA is responsible for DOE information security at the site including both classified and unclassified sensitive information. The CCSA maintains a Classification Officer and supporting staff for all DOE classification activities at the site. Site derivative classifiers are appointed by the CCSA Classification Officer.

The Contractor shall cooperate with DOE and the Infrastructure Contractor to optimize and revise the existing Site Security Plan to include the Protective Force upon the return of leased facilities and personalty from USEC. The Contractor shall obtain input from the Infrastructure Contractor to prepare a Security Optimization Plan that provides an implementation schedule and estimates for modifications to the current physical security program requirements and associated services that shall re-align the security requirements with the deactivation activities and DOE site programs in order to provide overall most cost-effective way of compliantly providing security. The Contractor shall obtain concurrence from the CCSA on the Security Optimization Plan prior to submittal to DOE for approval. The Contractor shall also support DOE with regard to review, development, and implementation of the HSS Site Security Risk Analysis and any associated corrective actions.

The Contractor shall perform all activities to:

a) Comply with site requirements to ensure appropriate levels of protection against: unauthorized access; theft, diversion, loss of custody of special nuclear material; espionage; loss or theft of classified matter or Government property; and other hostile acts that may cause unacceptable adverse impacts on national security or the health and safety of DOE and its Contractor employees, the public, or the environment.
b) Coordinate all requests for security services through the CCSA.
c) Ensure operations are fully consistent with all approved security plans applicable to the Contractor programs including, but not limited to facility security, physical security, cyber security, Operations Security (OPSEC), and information security.
d) Promptly prepare and submit requests for DOE authorization for personnel access to classified matter consistent with the provisions of the Contract Security Classification Specification (CSCS) approved for work under this Task Order. The Infrastructure Contractor performs the processing of the security clearance applications, and coordinates with federal security reviewers.
e) Provide an information security program commensurate with the types of information available on-site, such as, but not limited to, proprietary, Privacy Act, official use only (OUO), classified and Unclassified Controlled Nuclear Information (UCNI). The Contractor shall coordinate all information security programs with the CCSA who shall adjudicate classification issues.
f) Provide reports of security incidents or potential infractions to the CCSA. This will be included in a single, consolidated site report to DOE by the CCSA.
g) Ensure an adequate number of Contractor personnel are designated as derivative classifiers and/or UCNI reviewers in support of the Contractor's project needs.
h) Comply with CCSA security plans. The Contractor has the responsibility to recognize situations in which it shall need to request or develop security plans and work with the Infrastructure Contractor as appropriate to get those plans in place.
i) Comply with 10 CFR 824.

C.1.2.2.8.2 Nuclear Materials Control and Accountability

The Contractor shall modify USEC's and establish a centralized Nuclear Materials Control and Accountability (NMC&A) program to optimize the cost-effectiveness of the program for all accountable quantities of nuclear material on the Paducah site and for use by other site contractors. The Contractor shall accept transfer of the NMC&A Program for the Paducah site. The Contractor shall develop a program to manage all nuclear materials associated with the Task Order requirements.

The Contractor shall:

- Create, maintain, and provide a single, integrated NMC&A Plan, consistent with the safety requirements for use by Paducah site contractors performing NMC&A activities;

- Manage and conduct a centralized NMC&A Program for all accountable quantities of nuclear material on the Paducah site;
- NMC&A activities include warehousing, surveillance, characterization, planning, brokering, packaging, consolidation, preparation, and shipping of the inventory of depleted, normal and enriched Nuclear Materials;
- Be responsible for the final disposition, as directed by DOE, of all remaining Nuclear Material inventory including product and waste. The dispositioning of the Nuclear Material Product includes, but is not limited to, relocation to other DOE sites or DOE contractors for storage/programmatic use and/or sale to the private sector and/or disposal; and
- Provide necessary reports and information to support DOE-HQ Nuclear Materials Management and Safeguard System.

C.1.2.2.8.3 Physical Security Support

Upon return of the GDP facilities and associated realty to DOE, the Contractor shall provide Protective Force services for protection of the DOE site property and projects in accordance with Site Security Plans. The Contractor shall implement security optimization plans for re-alignment of services consistent with DOE project and site needs.

The Contractor shall maintain a trained Protective Force and shall provide all necessary equipment for use by the workforce (e.g. weapons). The Contractor shall utilize and maintain site facilities, including training facilities, portals, gates, etc. to implement and maintain compliance with Site Security Plans.

The Contractor shall develop and submit plans and implement installation of automated security access controls for personnel egress at least four locations to the site's limited area. The number and size of the access points shall be dependent on the needs of the Contractor and other site tenants/contractors, determined to be necessary by DOE to support the missions at the site and overall cost effective. The automated security access controls shall meet applicable DOE Orders and requirements.

Table C.1.2.2.8 Safeguards and Security Milestones/Schedule

Milestone	Date
Submittal of NMC&A Program Plan	90 Days after NTP
Submittal of Security Optimization Plan	90 Days after NTP
Submit automated security access control plans	90 days after NTP
Initiate automated security access control modifications	Date of Facility Delease

C.1.2.2.9 Records Management and Document Control

The Contractor shall manage all records generated/received in the performance of the Task Order, including records obtained from a predecessor contractor (if

applicable), in accordance with the Paducah Infrastructure Contractors Records Management Program, Federal laws, regulations, DOE Orders, and any other NARA or DOE requirements as directed by the CO. These functions include, but are not limited to, tasks associated with creating, receiving, maintaining, storing, protecting, scheduling and dispositioning inactive records (including emails) to the Infrastructure Contractor; managing classified records (if applicable), records management data calls by NARA and DOE-HQ, and support to ongoing requests related to the Freedom of Information Act (FOIA), the Privacy Act, The Energy Employee Occupational Illness Compensation Program (EEOICPA), the former worker medical screening program, the Chronic Beryllium Disease Prevention program, congressional inquiries and legal discoveries.

The Contractor shall ensure records classified as Quality Assurance records under American National Standards Institute (ANSI)/American Society of Mechanical Engineers (ASME) National Quality Assurance (NQA)-1 are categorized appropriately and managed in accordance with NQA-1 and 36 CFR Chapter XII, Subchapter B, and are maintained for traceability to the applicable item, activity or facility.

The Contractor shall ensure that records that contain personal information retrieved by name or another personal identifier are categorized and maintained in Privacy Act Systems of Records, in accordance with FAR 52.224-2, “Privacy Act” and DOE Order 206.1, “DOE Privacy Program”.

Except for those defined as contractor-owned (in accordance with DEAR 970.5204-3, “Access to and Ownership of Records,” see Section I), all records (see 44 U.S.C. 3301 for the statutory definition of a record) acquired or generated by the Contractor in the performance of this Task Order including, but not limited to, records from a predecessor contractor (if applicable) and records described by the Task Order as being maintained in Privacy Act Systems of Records shall be the property of the Government.

The contractor shall turn over inactive records to the Paducah Infrastructure Contractor in electronic format in accordance with the Paducah Infrastructure Contractors Records Management Program. The process shall include, but is not limited to:

- Transmitting of record(s) in Portable Document Format (PDF), or other NARA-acceptable format, with a minimum resolution of 300 dots per inch (NARA minimum requirement for permanent records). Transfer shall include back-up data or drafts (if applicable) that would be required to be maintained to adequately document the work performed.
- Perform 100 percent validation of all transfers to ensure:
    - Optical character recognition process performed.
    - All text and markings are clear and legible.
    - All pages are legible or marked as "poor quality original."
    - Pages are rotated correctly.
    - Classification markings are clear and legible.

- No security settings (e.g., encryption, passwords, and//or permissions) are included/embedded that would prevent opening, viewing, or printing a record.
- For permanent records, ensure lossless file compression technique is used (not lossy).

- All embedded fonts are identified publically as being legally embeddable in a file.
- Classified documents may be processed electronically so long as the computer systems which meet all classified security requirements are available to properly process them. Until the required computer systems are available to copy, log, process, transmit, and/or store classified documents, they should be processed as both hard copy and electronically.
- Digital photographs shall meet NARA's minimum requirements of 6 megapixel files or greater with a minimum pixel array of 3,000 pixels by 2,000 pixels, shall be scheduled, managed and captioned as required.
  - Captioning shall include an index that includes: Photo #, date taken, program category (e.g., Environmental Management), site, detailed description/caption, including names of individuals where possible. Digital photographs can be captioned utilizing the properties feature, but must also include an index to link the two. See 36 CFR 1237 for specific requirements.

The Contractor shall ensure all records identified for inclusion in the administrative record are turned over to the Paducah Environmental Information Center in both hard copy and electronic format. The Paducah Environmental Information Center, which is maintained by the Infrastructure Contractor on behalf of DOE, is located off-site at: 115 Memorial Drive, Barkley Center, Paducah, Kentucky.

The Contractor shall prepare, revise, submit for DOE approval, and execute an approved Records Management Plan, Vital Records Inventory, and Records Management Close-out or transition plan consistent with the Paducah Infrastructure Contractors Records Management Program, records management regulations, including clause DEAR 970.5204-3, Access to and Ownership of Records and the Section H clause entitled "Privacy Act Systems of Records."

The Contractor shall work with the Paducah Infrastructure Contractor and the Portsmouth/Paducah Project Office (PPPO) Records Management Field Officer (RMFO) for records related questions or guidance (e.g., records to be included in the AR, the handling of paper and/or electronic "copies" of records turned over, etc.)

C.1.2.2.10 Public Affairs and Program Management Support

The Contractor shall provide services including, but not limited to, management, public affairs including Paducah Site CAB support, financial, legal, procurement, and program management. The Contractor should pursue any available

exemptions which may reduce taxes, public information, and human resource management commensurate to support this scope of work. The Contractor shall perform all activities to:

a) Support DOE in responding to Congressional, regulatory and other requests for documents and information; examples of such include: Freedom of Information Act requests; Privacy Act requests; and litigation document requests served upon DOE and its current and former prime contractors.
b) Support shall include, but not be limited to, preparation for briefings, public presentations, and search, review, and reproduction of documents. The Contractor shall ensure all external briefing materials and public presentations are of the highest professional quality to market the current and planned project achievements.
c) Provide administrative services pertaining to public affairs. These shall include, but not be limited to, development of a project/site external communication strategy to market the current and planned project achievements to DOE's stakeholders, including local and state government and congressional representatives.
d) Ensure that all environmental regulatory documents have received adequate legal review for sufficiency, accuracy and strategic impacts before being submitted to DOE and then to the regulatory agencies.
e) Support DOE efforts with regard to site reindustrialization/reutilization activities and with regard to NEPA.
f) Provide joint legal support to DOE in connection with legal or regulatory proceedings at DOE's request.
g) Support Task Order Implementation at the beginning and transition at the end of the Task Order.
h) Provide central locations and receptacles for the collection and delivery of site mail by the Infrastructure Contractor.
i) External review and support to DOE involves providing support during audits and assessments by entities having oversight responsibility for DOE Paducah GDP Deactivation Project and its contractors. These entities include:
    - Defense Nuclear Facilities Safety Board (DNFSB);
    - Government Accountability Office (GAO);
    - DOE Office of Inspector General (OIG); and
    - Other governmental and DOE organizations.

The Contractor shall support the DOE Paducah site, DOE-PPPO, and the DOE ETS Contractor in hosting staff from auditing and assessing organizations, providing required presentations, responding to information requests, and providing required subject matter experts to respond to questions and information requests.

The Contractor shall:

- Support DOE in interfacing with DNFSB, as needed, by:
    - Providing support for the preparation of DOE responses to DNFSB issues and recommendations that affect this Task Order.

- Cooperating with the DNFSB and providing access to work areas, personnel, and information, as necessary.
- Maintaining a document process in accordance with the CRD M 140.1-1B, Interface with the DNFSB (or current version).

- Support DOE in interfacing with GAO, OIG, and other governmental and DOE oversight activities by:
  - Cooperating with assessors and auditors, and providing access to work areas, personnel, and information.
  - Providing support during audits and assessments, including delivering information within a specified time, arranging briefings, preparing presentation materials, maintaining a record of documents provided in response to requests, and making this record available to DOE-PPPO as requested.
- Provide knowledgeable single points-of-contact for each of the following:
  - DNFSB; and
  - OIG, GAO, and other assessing governmental and DOE oversight organizations (including the DOE Office of Enforcement).

C.1.2.2.11 Real and Personal Property Management

Administration of the real and personal property program is the responsibility of the Infrastructure Contractor including managing an automated database of all personal property actions related to acquisition, use and disposition. The Infrastructure Contractor is also responsible for managing the property inventory, databases, disposition operations, and providing input to FIMS and the Property Information Database System.

The Contractor shall gather the minimum required FIMS data for facilities returned (transferred) from USEC. The Contractor shall provide new or updated data to the Infrastructure Contractor for input into FIMS for all facilities assigned under this Task Order. The Contractor shall be responsible for ensuring FIMS data is accurate and up to date throughout Task Order period of performance for assigned facilities. The Contractor shall provide FIMS data to the Infrastructure Contractor and shall support the annual FIMS data verification.

Table C.1.2.2.11 FIMS Milestones/Schedule

Milestone	Date
Submit the FIMS data for returned facilities to the Infrastructure Contractor	30 days after Facility Delease

The Contractor shall manage all assigned Government-owned accountable and non-accountable personal property in accordance with the requirements listed below and 41CFR101 and 41CFR109:

i. Control classified equipment and material in accordance with DOE O 471.6, “Information Security.”

ii. Control high risk property in accordance with DOE Personal Property Letter 970-3, Rev.1, dated February 3, 1998.
iii. Destruction or "rendering useless" of any component, equipment, and material, which are both surplus to the DOE and identified in the Nuclear Suppliers Group Trigger List or are nuclear weapon component or weapon-like components, is the responsibility of the Contractor.

This includes establishing a system to track the assignment and status of high risk property specifically assigned to the Contractor. Prior to providing property to the Infrastructure Contractor for disposition, the Contractor shall characterize the property, maintain characterization records and provide those records at the time of property transfer to the Infrastructure Contractor.

The Contractor shall work with DOE Property Manager, Fleet Manager and Realty Officer and provide the property and vehicle reports in accordance with Section J, Attachment J-1, List of Applicable Laws, Regulations and DOE Directives, Attachment J-2, Summary of Task Order Deliverables, and Section I, Task Order Clauses.

C.1.2.2.12 Computing and Telecommunication

Local Area Network (LAN) and a Wide Area Network (WAN) configured to allow multiple users will be provided for the Contractor's use at Paducah via a T-1 line. The T-1 line is only furnished for facilities on-site at Paducah. The Contractor will have to furnish the T-1 line to any other off-site facilities. The Infrastructure Contractor will perform maintenance and repair of all installed T-1 lines. The system will be configured to allow separation of multiple users and provide basic operating software sufficient to allow input into DOE data systems. Computer support will be provided by the Infrastructure Contractor and will include network administration, customer service support, help desk support, servers for the Paducah Data Warehouse, computer repairs, and cyber security and basic security such as SPAM, adware, and spyware protection. The Contractor's computing and telecommunications system shall be compatible with the Infrastructure Contractor's Cyber Security Program. Customer service support includes unpacking, installation, testing and removal of Personal Computers (PCs) and related components and software installation, removal, or upgrades as necessary; ensuring operability between PCs and peripheral devices, the LAN and WAN; and providing personal interface in assessing user needs through personal visits and telephone.

The Contractor shall install any additional ports necessary to support its own activities if a sufficient number of ports are not available in the work location. If additional facilities are brought on to house personnel (e.g. trailers) that are not sufficiently equipped, the Contractor is responsible to run lines, wire trailers, install ports and to perform any necessary preliminary work for connection to the site LAN or WAN. Any requests for additional computing resources either hardware or software must be submitted to DOE for approval including justification and detailed explanation of costs.

The Contractor shall be responsible for providing only peripheral activities related to the telephone system for its own personnel (i.e. individual phone unit replacements, and working with the Infrastructure Contractor for moving office phone numbers). If additional facilities are brought on to house personnel (e.g. trailers) that are not sufficiently equipped, the Contractor shall be responsible to run lines, wire the facilities, install phone systems and to perform any necessary preliminary work for connection to the site phone system.

Another site contractor holds the license for the Federal Communications Commission (FCC) digital narrow band radio frequencies being used and provides the narrow band radio frequency, the tower, and transmission services. At Paducah, most of the radios are Enhanced Access Communication Systems (LPE-200) portable 800 MHz compliant with the narrow band frequency. Narrow band frequency radios shall be supplied by the Contractor for its own use. Cell phones and other communication devices will not be provided and are the responsibility of the Contractor.

C.1.2.2.13 Energy Efficiency

The Contractor shall assist DOE through direct participation and other support in achieving DOE's energy efficiency goals and objectives in electricity, water, and thermal consumption, conservation, and savings, including goals and objectives contained in Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management. The Contractor shall maintain and update, as appropriate, its documents to include detailed plans and milestones for achieving site-specific energy efficiency goals and objectives. With respect to this paragraph, the plan shall consider all potential sources of funds, in the following order: 1) the maximum use of private sector, third party financing applied on a life-cycle cost effective basis, particularly from Energy Savings Performance Contracts and Utility Energy Services Contracts awarded by DOE; and 2) only after third-party financing options are evaluated, in the event that energy efficiency and water conservation improvements cannot be effectively incorporated into a private sector financing arrangement that is in the best interest of the Government, then DOE funding and funding from overhead accounts can be utilized. Implement the Transformation Energy Action Management (TEAM) Goals and Initiatives. Report the progress on achieving these goals and initiatives in the Ten Year Site Plan, semi-annually to EM HQ, and upon request. At a minimum, the following initiatives shall be pursued:

a) All new construction shall include plans for solar or other clean, secure on-site generation. All lighting systems and products shall utilize compact fluorescent /solid state/fluorescent lights where practical. All purchases of office equipment shall be ENERGY STAR or DOE Federal Energy Management Program top 25th percentile. All new construction and major renovations to achieve not less than Leadership in Energy and Environmental Design (LEED) Gold certification.
b) Decrease water consumption where practical, in all applicable buildings, trailers, and other structures and facilities.
c) Develop Green purchasing program and incorporate Executive Order 13423

into new subcontracts.

d) Increase energy efficiency by adding meters to buildings that meet the Department's cost-benefit analysis guidelines. Even on non-metered buildings, pursue energy savings opportunities such as fluorescent lighting, low flow shower heads, programmable thermostats, more efficient insulation, and other energy saving projects.
e) When the Contractor takes responsibility for facilities and enters into negotiations for power contracts, attempts shall be made to increase the purchase of electricity from renewable energy sources to at least 50%.
f) Transition all fleet vehicles to alternative fuel as vehicles are replaced. Pursue plug-in hybrid electric vehicles where economically and operationally practical.
g) Develop a Toxicity Reduction Plan. Develop toxicity reduction objectives and targets. Monitor ozone depletion substances, recovery, and recycling. Establish and achieve waste diversion goals.
h) Develop and implement a plan for enabling the ENERGY STAR standby feature on all computers and monitors. Develop and implement a plan for extending the useful life of electronic equipment. Electronics shall be dispositioned in an environmental responsible manner at the end of their useful life.

C.1.2.2.14 DOE Consolidated Audit Program (DOECAP)

The DOECAP is a consolidated audit program with DOE complex-wide participation that conducts annual audits of analytical environmental laboratories and commercial treatment, storage, and disposal facilities (TSDFs) that have contracts or agreements to provide services to DOE. DOECAP audits are performed on behalf of, and with the participation of, sites throughout the DOE complex. The six DOECAP laboratory audit areas include Quality Assurance Management Systems and General Laboratory Practices, Data Quality for Organic Analyses, Data Quality for Inorganic and Wet Chemistry Analyses, Data Quality for Radiochemistry Analyses, Laboratory Information Management Systems and Electronic Data Management, and Hazardous and Radioactive Materials Management. The seven DOECAP TSDF audit areas include Quality Assurance Management Systems, Sampling and Analytical Data Quality, Waste Operations, Environmental Compliance/Permitting, Radiological Control, Industrial and Chemical Safety, and Transportation Management.

The Contractor shall perform all activities to:

a) Provide qualified candidates to participate on at least one TSDF and one Lab DOECAP audit team per year.
b) Perform pre-audit activities, including but not limited to, requesting and reviewing pre-audit information from the audited facilities and participating in conference calls.
c) Perform audit activities, including lead auditor activities during laboratory audits.
d) Perform post-audit activities, including but not limited to, completing and issuing audit reports and notifying the audited facility of acceptance of the proposed CAP.

e) Perform work in accordance with DOECAP procedure AD-1, DOECAP Policies and Practices.

C.1.2.2.15 Asset Recovery and Recycling

Following direction of the CO, the Contractor shall evaluate, recover, store, and manage all scrap metal and materials in accordance with DOE Orders, policies, and other Federal regulations, including requirements on unrestricted release. The Contractor shall not release for unrestricted use any scrap metal from DOE radiological areas into commerce in accordance with the July 2000 (Memorandum of "Release of Surplus and Scrap Materials", from Secretary Bill Richardson, dated July 13, 2000) suspension prohibiting unrestricted release for recycling. Also, in accordance with the January 2000 (Press Release "Energy Secretary Richardson Blocks Nickel Recycling at Oak Ridge", dated January 12, 2000) moratorium instituted by the Secretary of Energy, the Contractor is prohibited from unrestricted release of volumetrically-contaminated metal into commerce. The Contractor shall comply with DOE policies that are developed to address or update the suspension or the moratorium. The Contractor shall provide a Recycling Program Plan within 6 months of NTP. Classified scrap metal and materials shall be handled in accordance with DOE security requirements.

In the event a decision is made by DOE to lift the recycling moratorium, the Contractor shall revise the Recycling Program Plan to reflect these changes no later than 60 days following the lifting of the moratorium to include re-use, recycle, and/or dispose of scrap metal and materials outside the radiological area, in accordance with all DOE Orders, policies, federal statutes, and regulations. In the event a decision is made by DOE to lift the recycling moratorium, the Contractor shall re-use, recycle, and/or dispose of scrap metal and materials inside the radiological area, in accordance with relevant DOE Orders, policies, federal statutes, and regulations, including regulatory and administrative requirements for controlled radiological use.

Table C.1.2.2.15 Asset Recovery and Recycling Milestones/Schedule

Milestone	Date
Recycling Program Plan	Within 6 months of NTP and updated as necessary

C.1.2.2.16 Pension and Benefit Administration

The Contractor shall become a participant in the East Tennessee Technology Park Pension Plan for Grandfathered Employees (ETTP MEPP), the East Tennessee Technology Park Multiple Employer Welfare Arrangement (ETTP MEWA), and other existing benefit plans. The requirements associated with this responsibility are set forth in Section H.105, Special Provisions Applicable to Workforce Transition and Employee Compensation: Pay and Benefits.

C.1.2.3 Post-GDP Shutdown Environmental Remediation Transition

Pre-GDP Remediation is currently being performed by the Remediation Contractor and that contract is scheduled to end on July 25, 2015. After that date, services provided by the former Remediation Contractor to the Contractor (See C.1.10) will no longer be provided to the Deactivation Contractor.

Upon expiration of the Remediation Contract, the Contractor shall assume responsibility for any and all Post-GDP Shutdown Environmental Services. Three months prior to the end of the Remediation Contract, the Contractor shall initiate transition of facilities and equipment utilized by the Remediation Contractor for its own use in support of the Post-GDP Remediation work scope. The Contractor shall perform all activities to support acceptance of facilities and equipment, including, but not limited to, facility walkdowns, evaluation of environmental/regulatory compliance, programmatic and operational documents and procedures, and validation of FIMS data, etc. Additionally, the Contractor shall re-assign/transfer all permits, or other site documents, as applicable. The Contractor shall be the operator on all environmental permits.

The Contractor shall provide weekly status report of transition activities to DOE during this transition period. The Contractor shall establish routine status meetings with DOE and affected contractors to review transition activities and issues. In accordance with the Section H clause, Government-Owned Property and Equipment Responsibilities for Task Order Transition Period, the Contractor shall conduct a joint reconciliation of the Government property inventory with the predecessor contractor. The Contractor shall ensure that these functions are seamlessly integrated into its on-going/existing tasks.

Table C.1.2.3 Environmental Remediation Transition Milestones/Schedule

Milestone	Date
Complete transition of Environmental Remediation Facilities and Equipment	Upon expiration of the Remediation Contract
Complete re-assignment of environmental permits	Upon expiration of the Remediation Contract

C.1.3 Facility Modification and Infrastructure Optimization

C.1.3.1 Stabilization

After facilities are turned over by USEC and accepted by DOE, the Contractor shall perform stabilization and deactivation activities for facilities as appropriate to put into safe configuration for long-term S&M and the Contractor shall submit a Stabilization and Deactivation Plan. In general, "stabilization" refers to the early stages of the deactivation process when nuclear materials and contaminants are prepared for storage and/or removed from the facility. "Deactivation," which follows "stabilization," involves removing remaining radioactive and hazardous materials, shutting facility systems down, and de-energizing equipment in preparation for long-term S&M.

The Contractor shall perform the necessary facility stabilization and deactivation activities including, but not limited to, the following:

1) Evaluate and determine the need for the continued safety requirements for monitoring and/or maintaining systems;
2) Perform deactivation and/or verification activities that support facilities stabilization, per DOE O 420.1B, Facility Safety and contractor safety basis documentation;
3) Perform uranium deposit/hold-up removal or Tc-99 treatment necessary to minimize long-term S&M cost.

NOTE: Due to enormous surface area of the uranium process systems within the Paducah cascade, a significant amount of uranium has been chemically and physically absorbed to the inner walls of the piping and cell components. This deposited uranium is commonly referred to as the in process uranium hold-up. It has been estimated as much as 7,500 kgs of uranium may be present.

Additionally, there are uranium deposits caused by wet air in leakage. The moisture in the air upon entering the cascade reacts with UF_6 to form various uranium oxy-fluorides with the most common being UO_2F_2 and are deposited near the leak. The uranium deposits can range from a few pounds caused by seal failures to several hundred pounds from expansion joints. The seal failures are readily detectable by seal alarms, compressor surging and motor load oscillations thus minimizing the duration of the leak. On the other hand, expansion joint failures may go undetected for a longer period of time, resulting in much larger uranium deposits. Overall it is estimated to be approximately 5,000 lbs of UO_2F_2 within the cascade.

Table C.1.3.1 Facility Deactivation and Maintenance Milestones/Schedule

Milestone	Date
Stabilization and Deactivation Plan	30 Days prior to Facility Delease

C.1.3.2 Utility Optimization

The Contractor shall ensure that decisions for optimizing utilities and laboratory services are based on documented cost/benefit analyses that evaluate overall costs to DOE. Additionally, the Contractor shall use energy savings performance contracts to the maximum extent possible where determined to be cost effective.

The Contractor shall ensure the reduction and optimization of on-site utilities as such to support the continued operations of the DUF_6 Conversion Plant, the on-going environmental remediation and other site tenants/contractors. The Contractor shall ensure that use/need of utilities for its operations is minimized to the maximum extent and shall work aggressively to isolate and shutdown GDP and associated support facilities at the site so that the GDP enters long-term minimal S&M as quickly as possible.

The Contractor shall develop, submit and implement a Utility Optimization Program Plan consistent with the Federal Energy Management Program (FEMP) and DOE Order O 436.1, where applicable. The Plan shall include site utility redistribution and electrical switchyards consolidation. The Contractor shall evaluate the required utilities necessary to support long-term DOE-mission activities at the Paducah Site, including the shutdown and future demolition of GDP.

The Contractor shall obtain the DOE CO approval prior to implementation of any utility modifications. Such plans shall consider and include current site utilization, end state vision, and shared site agreements with other site contractors.

Upon completion of the optimization implementation, DOE may require the Contractor to transition utility operations to another site contractor. The Contractor shall complete any requested utility transitions within 90 days of DOE's request.

Table C.1.3.2 Utility Optimization Milestones/Schedule	
Milestone	**Date**
Submittal of Utility Optimization Program Plan	30 days after NTP

C.1.3.2.1 C-611 Water Treatment and Distribution Facilities

The Contractor shall assess the capabilities of the on-site water treatment facilities and distribution network for purposes of transferring these DOE assets to local community water districts or for deactivating the on-site water treatment facilities and relying solely on community water districts water supplies. Additionally, the Contractor shall assess the site's near-term and long-term operational needs as the GDP is deactivated and placed into long-term S&M, DUF_6 operations continue, and environmental remediation activities continue (i.e., including the needs of other on-site tenants/contractors). The Contractor shall prepare a cost/benefit analysis for transferring responsibilities for providing potable and non-potable water services to the site by local community water districts, or to the extent applicable, any other potential service provider and evaluate the viability of such a transfer and identify the key activities necessary to be completed by DOE to support such a transfer (including transfer of DOE assets/real property). This Water Treatment Facility and Distribution Network Transfer Cost/Benefit and Viability Analysis and Implementation Plan shall also include a schedule and implementation plan for all actions required to be completed prior to facility transition. The Contractor shall also identify and evaluate other alternatives, including innovative approaches that results in the attainment of potable and non-potable water supplies from outside sources. This Cost/Benefit Alternative Analysis shall include a schedule and implementation plan for all actions required to be completed. After the C-611 Water Treatment and Distribution Facilities are turned over by USEC and accepted by DOE, the Contractor shall implement the alternative approved by DOE.

Table C.1.3.2.1. Water Treatment and Distribution Facilities Milestones/Schedule	
Milestone	**Date**

Water Treatment Facility and Distribution Network Transfer Cost/Benefit and Viability Analysis and Implementation Plan	60 days after NTP
Complete transfer of Water Treatment Facilities/real property	Date of Facility Delease
Start Implementation of Recommended Optimization Actions	As scheduled in the approved Water Treatment Facility and Distribution Network Transfer Cost/Benefit and Viability Analysis and Implementation Plan
Complete Implementation of Recommended Optimization Actions	As scheduled in the approved Water Treatment Facility and Distribution Network Transfer Cost/Benefit and Viability Analysis and Implementation Plan

C.1.3.2.2 C-615 Sewage Disposal Plant

The Contractor shall assess the capabilities of the on-site sewage collection and treatment systems and facilities for purposes of replacing these facilities through use of more efficient modular treatment systems or use of local community sewage treatment districts. Additionally, the Contractor shall assess the sites near-term and long-term operational needs as the GDP is deactivated and placed into long-term S&M, DUF_6 operations continue, and environmental recommendation activities continue (i.e., including the needs of other on-site tenants/contractors). As the sewage facilities and infrastructure have historical radiological contamination, any recommendation provided by the Contractor must ensure no migration of contamination off-site. The Contractor shall prepare a cost/benefit analysis for Contractor-identified alternatives, including innovative approaches to replace or optimize existing sewage collection and treatment systems and facilities. This Sewage System/Facility Cost/Benefit Alternatives Analysis and Implementation Plan shall include a schedule and implementation plan for all actions required to be completed. After the C-615 Sewage Disposal Plan is turned over by USEC and accepted by DOE, the Contractor shall implement those alternatives approved by DOE.

Table C.1.3.2.2 Sewage Treatment Plant Milestones/Schedule

Milestone	Date
Sewage System/Facility Cost/Benefit Alternatives Analysis and Implementation Plan	60 days after NTP
Complete transfer of Sewage Treatment Plant Facilities/real property	Date of Facility Delease
Start Implementation of Recommended Optimization Actions	As scheduled in the approved Sewage System/Facility Cost/Benefit Alternatives Analysis and Implementation Plan

Complete Implementation of Recommended Optimization Actions	As scheduled in the approved Sewage System/Facility Cost/Benefit Alternatives Analysis and Implementation Plan

C.1.3.2.3 Power Distribution

The Contractor shall assess the capabilities and configuration of the on-site power distribution system and facilities for purposes of 1) consolidating on-site power distribution to the C-531 Switchyard as quickly as possible, 2) evaluating and determining if construction/installation of a replacement switchyard(s) (high and low side) is cost effective, 3) transferring options or ownership of the four existing switchyards (C-531, C-533, C-535, C-537), two relay houses (C-532, C-536), and other related support systems/facilities to electrical utilities.

Additionally, the Contractor shall assess the site's near-term and long-term operational needs as the GDP is deactivated and placed into long-term S&M, DUF_6 operations continue, and environmental remediation activities continue (i.e., including the needs of other on-site tenants/contractors). As radiological and PCB contamination exists in the switchyards and on/near associated support facilities and assets, any recommendation provided by the Contractor must ensure appropriate controls are in place to properly control contaminants and ensure protection of personnel entering or commercially utilizing the facilities and systems.

The Contractor shall prepare a Power Distribution System Optimization Analysis and Implementation Plan that identifies alternatives, including innovative approaches to divest DOE of the power distribution system and position itself to be solely an end-user of power supplied by the existing utilities servicing the site. This analysis and implementation plan shall also include a schedule for all actions required to be completed. Additionally, this analysis and implementation plan shall consider implications associated with NERC/FERC compliance, focusing on the most cost effective means of meeting DOE's missions at the site.

After the Power Distribution System is turned over by USEC and accepted by DOE, the Contractor shall implement those alternatives approved by DOE. The Contractor shall coordinate with Tennessee Valley Authority, Electric Energy Inc., and Kentucky Utilities to implement modifications that may result from approved utility optimization plans.

Table C.1.3.2.3 Power Distribution Milestones/Schedule	
Milestone	**Date**
Submit Power Distribution System Optimization Analysis and Implementation Plan	30 days after NTP
Complete all engineering and design activities for consolidation of the power distribution system to the C-531 Switchyard	90 days prior to Facility Delease
Start field work for C-531 Switchyard optimization	Date of Facility Delease
Complete field work for C-531 Switchyard optimization	1 year after Facility Delease
Field Start of optimization activities (other than reconfiguring power to C-531)	As scheduled in the approved Power Distribution System Optimization Analysis and Implementation Plan
Complete Implementation of Recommended Optimization Actions (other than reconfiguring power to C-531)	As scheduled in the approved Power Distribution System Optimization Analysis and Implementation Plan

C.1.3.2.4 C-600 Steam Plant Shutdown

After the C-600 Steam Plant is turned over by USEC and accepted by DOE, the Contractor shall deactivate and shutdown the C-600 Steam Plant. However, heat, compressed air, nitrogen, and chilled water will still be required for certain facilities that currently utilize the RCW system (residual heat). The Contractor shall evaluate the site's need (including tenants/contactors) for heat, compressed air, nitrogen and chilled water.

The Contractor shall develop a Steam, Air, Nitrogen, and Chilled Water Optimization Plan which will include alternate sources, properly sized, for the utilities and upon approval by DOE, implement the modifications. The Plan shall include a schedule and implementation plan for all actions required to be completed. The Contractor's evaluation shall also include the use of lube oil as a fuel source and include the dispositioning cost of the site's approximately 600,000 gallons of lube oil within the cost/benefit analysis. The Optimization Plan shall specifically include the provision of an alternative heat supply to the facilities currently utilizing waste heat for facility heating systems. Facilities include C-100, C-101, C-102, C-200, C-400, C-710 and C-720. The Contractor shall also include evaluation of modifications to the chilled water system to provide air conditioning for the C-100, C-101, C-102, C-200, C-300, C-400 office areas, C-710 and C-720 office areas that are currently cooled. In all instances, these facility modifications should be sized and installed only for these facilities/areas which the Contractor (or the other site's contractors/tenants) expects to utilize for support of this PWS. All procurement activities and design work must be finalized prior to date of Delease. After the C-600 Steam Plant is turned over by USEC and accepted by DOE, the Contractor shall implement waste heat and chilled water conversion modifications.

Table C.1.3.2.4 C-600 Steam Plant Shutdown Milestones/Schedule	
Milestone	**Date**
Steam, Air, Nitrogen, and Chilled Water Optimization Plan	90 Days after NTP
Complete Design and procurement activities	Date of Facility Delease
Initiate waste heat conversion modification	As scheduled in the approved Steam, Air, Nitrogen, and Chilled Water Optimization Plan
Complete waste heat conversion modifications	As scheduled in the approved Steam, Air, Nitrogen, and Chilled Water Optimization Plan
Initiate chilled water conversion modification	As scheduled in the approved Steam, Air, Nitrogen, and Chilled Water Optimization Plan
Complete chilled water conversion modifications	As scheduled in the approved Steam, Air, Nitrogen, and Chilled Water Optimization Plan

C.1.3.2.5 Analytical Laboratory

The Contractor shall assess the capabilities of the on-site Analytical Laboratory (C-709 and C-710) for purposes of privatization of the facilities and equipment. Additionally, the Contractor shall assess the need of analytical services (lease, transfer, or purchase) from existing on-site tenants/contractors to determine the type of analytical services needed. The Contractor shall prepare a cost/benefit analysis for privatizing operation of the Analytical Laboratory, evaluate the viability for such an activity and identify the key activities necessary to be completed by DOE to support such a privatization activity. This Cost/Benefit and Viability Analysis shall also include a schedule and implementation plan with all activities required to be completed prior to facility transfer. The Contractor shall also identify and evaluate other alternatives, including innovative approaches that result in transfer of Analytical Laboratory operations to private or commercial entities. After the Analytical Laboratory is turned over by USEC and accepted by DOE, the Contractor shall implement the approach approved by DOE.

Table C.1.3.2.5 Analytical Laboratory Milestones/Schedule	
Milestone	**Date**
Privatization Cost/Benefit and Viability Analysis	60 Days after NTP
Analytical Laboratory Privatization Complete	Date of Facility Delease

C.1.4 Surveillance and Maintenance and Utility Operations

C.1.4.1 Surveillance and Maintenance

The Contractor shall develop, document, and maintain an S&M Program Plan as appropriate for all facilities that are within the Contractor's responsibility.

The S&M activities shall be tailored during the facility life-cycle in accordance with DOE O 430.1B, Real Property Asset Management, and 10 CFR 851, Worker Safety and Health Program. Other areas that may require S&M include closed areas, remediated areas, capped areas (e.g., landfill), open areas, etc.

For all activities, the Contractor shall maximize use of recycling excess materials and equipment to reduce project costs in accordance with DOE O 436.1, including leading efforts to gain approval for recycling scrap metals. The Contractor shall support DOE's reindustrialization and asset utilization activities at the site.

After facilities are turned over by USEC and accepted by DOE, the Contractor shall provide preventive and corrective maintenance using a graded approach on buildings, trailers and OSF assigned in Table C-1. A graded approach is defined as the process of ensuring that actions used to comply with a requirement are commensurate with (1) the relative importance of safety and safeguards and security, (2) the magnitude of any hazard(s) involved, (3) the life cycle stage of the facility, (4) the programmatic mission of the facility, (5) the particular characteristics of the facility, (6) the relative importance of the radiological and non-radiological hazards, and (7) any other relevant factor. The activities include, but are not limited to: carpentry; painting; electrical; winterizations; floor maintenance; plumbing; instrumentation; heating, ventilation, and air conditioning; sheet metal work; and hoisting and rigging.

The Contractor shall provide to DOE an Annual Site Facility Occupational Status Report that documents which facilities are routinely occupied and the plans associated with unoccupied facilities. The Contractor shall also, to the extent practicable, remove and disposition permanently unoccupied temporary facilities (e.g. trailers) or small structures to preclude degradation that would result in increased cost to DOE. DOE approval is required prior to implementing such actions.

The Contractor shall perform all S&M activities including, but not limited to, the following:

1) Minimize and reduce the occupation of facilities to the maximum extent possible;
2) Maintain the operability of critical equipment such as the criticality accident alarm systems and public warning systems, monitor radiological conditions, and check and maintain safety-related items. However, as facility conditions change, the Contractor shall reduce or eliminate critical

equipment or use of critical systems that are no longer required for compliance with DOE requirements.

3) Perform minimally required facility inspections including equipment and/or structure;
4) Conduct preventive, predictive, and corrective maintenance actions only necessary to support near-term Contractor or site tenants/contractors operations. As operational activities change, the Contractor shall periodically determine if continued preventative, predictive, and corrective maintenance is still warranted.

The cleanup of PCB spills and leaks, maintenance of PCB collection trough systems in the GDP cascade buildings, and the disposal of PCB waste are ongoing activities. PCBs were used extensively in the uranium enrichment process. The lube oil system in the GDP facilities leaks oil that migrates into the ventilation systems and comes into contact with PCB impregnated gaskets. These systems occasionally leak due to age, vibration, and thermal cycling. Troughs and a collection system have been installed under the areas that have a high potential to leak. There are over 16,000 PCB collection troughs (ranging from 4½ to 6 feet in length) installed inside the cascade buildings (C-310, C-315, C-331, C-333, C-335, and C-337). The cascade buildings cover approximately 6,400,000 square feet of floor space. PCB lube oils are continuously collected and dispositioned; maintenance of the trough system is ongoing. PCB lube oils that leak or spill are collected, cleaned-up, sampled, and properly disposed. The Contractor shall perform all activities to:

1) Perform surveillance and maintenance of the PCB collection and containment trough system including disposition of the collected PCB lube oils to the extent necessary.
2) Clean up, sample, and decontaminate PCB spills and leaks, sample and analyze spill sites (estimated to be 40 small spills per year), and properly disposition the PCBs and PCB contaminated material (e.g., absorbent pads and pigs).
3) Collect quarterly air quality data throughout the cascade buildings, and submit quarterly and annual reports through the end of the Task Order.
4) As the Contractor implements actions to deactivate and isolate the enrichment facilities, the Contractor shall evaluate the requirements of the TSCA FFCA and determine how to comply with or modify the agreement in order to minimize cost to DOE and place the facilities in long-term S&M at minimal annual cost to DOE.

The roofs for the process facilities shall be maintained in a structurally sound condition and deferred maintenance of the roofs is prohibited. The Contractor shall assess the structural integrity of the roofs prior to facility delease and annually thereafter. The Contractor shall provide DOE a report of the structural integrity of the roofs within 30 days of completing its assessment, including the costs and schedule for repair of the roofs. All repairs must be completed in a compliant, timely manner and must prevent water leakage.

Down-post any Department of Energy Material Storage Areas (DMSAs). Currently there are 19 DMSAs as listed below:

- C-310-01, C-310-03, C-310-04, C-310-05, C-331-09, C-400-01, C-400-02, C-400-03, C-400-04, C-400-05, C-400-06, C-400-07, C-400-08, C-409-01, C-409-02, C-720-01, C-720-02, C-720-03, C-720-04

Upon expiration of the Remediation Contract, the Contractor shall perform routine surveillance and maintenance of all DOE-owned facilities assigned to the former Remediation Contractor in FIMS and identified in Section J, Attachment J-12. The Contractor shall perform all S&M activities associated with these facilities through the end of the Task Order. This will include tasks as required; for example, routine inspections, corrective maintenance, facility repairs necessary to maintain the integrity of the facility, combustible removal, rodent and pest control, gross vacuuming, maintenance vacuuming, cleanup of spills/leaks, control of loose contamination and airborne particles, and isolation of utilities.

The Contractor shall store and maintain approximately 9,700 tons of volumetrically contaminated classified nickel stored on the C-746-H4 pad. The Contractor shall develop strategies, including options for the sale of 9,700 tons of classified nickel and other recyclable metals and materials stored at Paducah acting as DOE's agent for identifying and negotiation for reclamation and resale of the nickel, as well as, other valuable assets recovered as part of executions of this work scope. The Contractor shall implement asset and recovery activities as directed by the CO in accordance with C.1.2.2.15, Asset Recovery and Recycling. Tasks may include, but are not limited to:

1. Assist DOE in completing the evaluation of disposition options under NEPA;
2. Once authorized, implement the approved option for sale of classified nickel and other recyclable metals and materials; and
3. If sale is selected, assist DOE in completing the sale and disposition of the classified nickel and other recyclable metals and materials.

Table C.1.4.1 Surveillance and Maintenance Milestones/Schedule

Milestone	Date
S&M Program Plan	30 days prior to Facility Delease
Submit Roof Structural Integrity Assessment	Date of Facility Delease and annually thereafter
Complete Annual roof repairs	As scheduled
Annual Site Facility Occupational Status Report	90 days after Facility Delease and annually thereafter
As defined by Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement (UE TSCA FFCA)	As defined by the UE TSCA FFCA
UE TSCA FFCA Annual Compliance Agreement Report	Due 7/1 (for previous calendar year)

C.1.4.2 Utility Operations

After utilities are turned over by USEC and accepted by DOE, the Contractor shall operate and maintain utilities to the extent necessary and ensure utility services are provided to site tenants for the utilities described within this section. The Contractor shall work with the other site tenants/contractors to ensure that decisions to provide these services are based on overall cost effectiveness.

The Contractor shall provide sewage handling and treatment (e.g. C-615 Sewage Disposal Plant) services the site's contractors/tenants. The C-615 Sewage Treatment Plant provides secondary treatment and consists of a comminutor, primary and secondary settling basins, trickling filter, sludge digester and settling beds, chlorinator, and contact chamber.

In the event it is not in DOE's best interest to rely on commercially provided water, the Contractor shall ensure the operation and maintenance of the permitted C-611 Water Treatment Facilities and provide potable and non-potable (process) water to the site's contractors/tenants. This includes maintenance of associated raw water lines, distribution lines to the individual site facilities, water towers, pump, housings, etc. This raw water treatment process is based on conventional water treatment techniques which include softening, coagulation, flocculation, sedimentation, and chlorination. Raw water is obtained from the Ohio River through an intake station and pumped through water-softening units at the facility.

The Contractor shall ensure power is provided to all on-site tenants/contractors. Although the Contractor is not responsible for purchasing power (DOE purchases power), the Contractor shall project the power needs for GDP deactivation and S&M for a five-year period and update that projection quarterly. The Contractor shall also provide updates as requested.

Table C.1.4.2 Utility Operations Milestones/Schedule

Milestone	Date
Submit Power Projection and Updates	90 days after NTP and quarterly thereafter

C.1.4.3 Cylinder Transfers

The Contractor shall:

1) Conduct cylinder transfer operations. Approximately 470 14-ton natural UF_6 thin walled feed cylinders (48Gs) shall be transferred to 14-ton 48Y cylinders. The Contractor shall minimize cost to DOE (short term and long-term) in determining the appropriate facilities to use in processing the natural UF_6. No heavy heals (excessive unrecoverable compounds) may remain at the completion of this subtask. Any recovery of uranium through the use of the purge cascade must be demonstrated to be cost beneficial to DOE. The Contractor shall prepare and submit a Feed Transfer Plan to DOE for approval that documents the operational activities and proposed

facilities that are directly and indirectly necessary to support the operations activities to perform the feed transfer activities and the associated costs. Additional transfers (e.g. high-assay tails and off-spec uranium) may be requested by DOE.

Table C.1.4.3 Cylinder Transfers Milestones/Schedule	
Milestone	**Date**
Submit Natural UF feed Transfer Plan	60 days prior to Facility Delease
Initiate Natural Feed Transfers	15 days following Facility Delease
Complete Natural Feed Transfers (including any heavy heals generated by the operations)	1 year after Facility Delease

C.1.4.4 Analytical Laboratory Operations

In the event it is not in DOE's best interest to privatize the Analytical Laboratory, the Contractor shall ensure the operations and maintenance of the analytical laboratory only to the extent necessary to support its and other site tenants/contractor's needs after the Analytical Laboratory facilities are turned over by USEC and accepted by DOE. The Contractor shall provide analytical services for its work in support of the Paducah Deactivation PWS and provide analytical services to other Paducah site contractors (e.g., Infrastructure, Remediation, and DUF_6 contractors, etc.). The Contractor shall ensure costs are segregated appropriately and shall require the other site tenants/contractors to pay the fully burdened costs for performance of the analytical analysis/services. Additionally, the Contractor shall complete a cost comparison analysis comparing commercial analytical services with self-performance and provide an annual report to DOE detailing these cost comparison analyses. The analytical methods typically requested are provided in Attachment J-10, Laboratory Analytical Methods.

- The Contractor shall arrange for and coordinate the disposition of laboratory waste resulting from its services. Samples identified as waste will be disposed of within six (6) months of the acceptance of the Analytical Laboratory deliverable/data.

- The Contractor shall deliver electronic laboratory reports that meet the data deliverable requirements, within the agreed upon turnaround times, for the samples and analytes/compounds/radionuclides.

- In the event the operations of this analytical laboratory are privatized, the Contractor shall ensure that the laboratory still provides the analytical services to the DUF_6 Project.

- The Contractor shall be required to provide the following Analytical Services to the DUF_6 Project:

1. Hydrofluoric Acid (HF) Product Analysis: This analysis is performed to ensure the HF meets free release limits before shipment and a 24-hour pick-up and analysis is required. (% Acid, metals, silicon, sulfur, chloride (SW-846) and uranium by alpha spectrometer)
2. Potassium Hydroxide (KOH) Analysis: This analysis is required for environmental compliance and process control. A 24-hour pick-up and analysis is required (concentration - %KOH)

- Additionally, the Contractor shall ensure that classified processing of volatiles is a capability that the onsite laboratory performs (whether self-performed or not) unless other off-site services are more cost effectively available.

- Additionally, the Contractor shall also ensure that DOE's Contractor's analytical services are given priority over commercial services.

- The Contractor shall participate in Performance Evaluation Studies (PES) for its self-performed laboratory services provided through industry standard vendors and/or control programs. The PES programs include, but are not limited to: 1) Mixed Analyte Proficiency Evaluation Report Program (MAPEP), 2) American Industrial Hygiene Association and National Institute of Occupational Safety and Health Asbestos Proficiency Testing Programs, 3) Environmental Resource Associates (ERA) Proficiency Testing Program, and Discharge Monitoring Report – Quality Assurance (DMR-QA) study. The Analytical Laboratory may also be subject to blind PES submittals at the discretion of DOE.

- The Contractor shall submit to on-site audits led by DOE-CAP or their designees within the DOE and Contractor organizations. Audit teams will typically consist of personnel from the DOE-CAP, and other DOE Contractors. The audits will be performed periodically as identified by the DOE-CAP.

Table C.1.4.4 Analytical Laboratory Operations Milestones/Schedule	
Milestone	**Date**
Annual Commercial versus Contractor Cost Comparison Report	Annually

C.1.4.5 Waste Management Operations

The Contractor shall be responsible for the management and disposition of all waste generated by the Paducah GDP Deactivation project in accordance with all applicable laws, regulations, and DOE Orders. The Contractor shall have the capability to evaluate project waste management options consistent with the requirements of any negotiated regulatory agreement. For all activities, the Contractor shall maximize use of recycling excess materials and equipment to reduce project costs. The Contractor shall support DOE's reindustrialization and asset utilization activities at the site. The evaluations of waste management

option shall include stakeholder and regulatory involvement. The waste management options shall include, but not be limited to waste minimization, re-use, waste treatment, recycling, off-site disposal, and potential on-site disposal.

Environmental Remediation activities using the CERCLA process (in accordance with Executive Order 12580, Superfund Implementation) shall comply with the substantive requirements of DOE O 435.1, Radioactive Waste Management and DOE M 435.1-1, Radioactive Waste Management Manual (including disposal facility performance assessment and performance objectives, as well as the composite analysis) through the CERCLA process. Wastes generated are to be managed in compliance with RCRA, and in accordance with approved project CERCLA documents.

All waste management activities shall meet the appropriate waste acceptance criteria for approved waste disposition/disposal options. Waste is considered disposed of when it has been shipped to, and accepted for final disposition at, a properly licensed and permitted disposal site. The Contractor shall avoid generating waste with no pathway for disposal. The Contractor shall assist DOE in evaluating disposal site alternatives (e.g., cost/benefit analyses, National Environmental Policy Act (NEPA) documentation).

General Waste Information

Waste and other nuclear materials has been generated and stored at the Paducah Site over its lifetime. This waste includes, but is not limited to, waste such as Toxic Substance Control Act (TCSA), Mixed Low Level Waste (MLLS), Low Level Waste (LLW), Transuranic (TRU), and Mixed TRU (MTRU) generated by the previous contractors. The Contractor shall take all reasonable actions to minimize waste generation and to preclude the generation of TRU and MTRU wastes. The Contractor shall obtain DOE approval prior to generation of TRU or MTRU waste. After facilities are turned over by USEC and accepted by DOE, the Contractor shall also manage and dispose of newly generated waste such as runoff from waste facilities, LLW, TSCA waste, MLLW. Any USEC-owned waste must be treated under separate accounting codes and be able to be treated separately from other wastes.

The Contractor may transfer wastes to the Remediation Contractor storage and processing, where cost effective or required to comply with nuclear safety requirements (e.g., storage of fissile waste). After transition of the Remediation Contractor work to the Contractor, the Contractor shall utilize any facilities available for cost-effective storage and processing.

C.1.4.5.1 Waste Treatment

After facilities and/or operations are turned over by USEC and accepted by DOE, it is anticipated that waste generated during the execution of this Task Order shall require treatment services at other DOE or non-DOE facilities.

The Contractor shall:

- Perform either on- or off-site treatment, subject to regulatory requirements to meet the waste acceptance requirements for disposal of waste;
- Assume operations of existing Paducah waste management facilities/systems in accordance with approved DOE safety basis;
- Ensure existing treatment facilities remain compliant with all permits, orders, and regulatory requirements;
- Develop and maintain summary information for Nevada National Security Site on waste stream life-cycle projections planned for treatment facilities.

C.1.4.5.2 Waste Handling/Packaging/Hauling and Transportation for Treated and/or Disposed Waste

After facilities and/or operations are turned over by USEC and accepted by DOE, the Contractor shall perform all activities associated with the characterization, packaging, handling and hauling/transportation of waste to various facilities. This includes the transport to off-site and on-site treatment and/or storage facilities and off-site and on-site disposal facilities. All packaging and transportation practices shall be in accordance with applicable Federal, state, and local regulations and requirements.

In addition, the Contractor shall:

- Procure necessary packaging and carrier services for transport to/from treatment facilities and to disposal facilities;
- Make the appropriate requests and gain approval from the DOE CSA for classified shipments; and
- Develop appropriate transportation plans, including transportation security plans, for various waste types, obtain appropriate transport permits, and coordinate with DOE transport managers.

C.1.4.5.3 Disposal

The Contractor shall ensure that all waste generated prior to 90 days from this Task Order is completed are compliantly managed, characterized, processed, packaged and disposed. Management of wastes generated within 90 days from Task Order completion is the responsibility of the Contractor; however, disposition of wastes generated within 90 days from Task Order completion is the responsibility of the next contractor.

When off-site disposal is required, the Contractor shall:

- Receive and manage the disposal certificates for all wastes shipped off-site;
- Dispose of waste at approved DOE facilities and/or permitted commercial disposal facilities;
- Develop and maintain summary information on waste stream life-cycle projections planned for disposal facilities; and

C.1.4.5.4 Waste Management Operations

The Contractor shall submit and maintain a Waste Management Plan and obtain DOE approval. The Waste Management Plan shall include the evaluation of recycling waste and materials from these PWS activities. The recycling analysis shall include a thorough trade-off analysis of economic, health, safety, and waste volume benefits that could be realized by innovative recycling approaches. The Waste Management Plan shall also include the approaches for minimizing the generation of secondary wastes and reduce equipment contamination.

The Contractor shall be responsible for managing any secondary waste that may be generated. The Contractor shall be responsible for the management and disposition of all wastes generated by the Paducah GDP Deactivation project. The Contractor shall also be responsible for the management and/or disposition of waste generated by USEC and accepted by DOE under the terms and conditions of the DOE/USEC Lease. The Contractor shall track the volume, type of waste, cost, and disposal locations of each type of waste. Cost for storage, characterization, treatment, and disposal of any USEC waste must be tracked under separate accounting codes and be able to be tracked separately from other waste. The Contractor shall ensure operations of storage areas or facilities and comply with all permits, orders, and regulatory requirements. The Contractor shall, to the extent possible, minimize the number of facilities and waste/materials in storage.

Table C.1.4.5. Waste Management Operations Milestones/Schedule

Milestone	Date
Submit Waste Management Plan	60 days after NTP

C.1.5 Deactivation, Decontamination and Demolition

C.1.5.1 Additional Stabilization and Deactivation

The Contractor shall perform Additional Stabilization and Deactivation as approved by the CO if/when funding becomes available and if determined to be in the government's best interest. The Contractor shall perform additional stabilization and deactivation activities (beyond those activities initially performed in Section C.1.3.1). Additional stabilization and deactivation activities shall be performed to further reduce long-term S&M costs and reduce future demolition costs. The Contractor shall evaluate and determine benefits of additional uranium deposit/hold-up removal or Tc-99 treatment that reduces future S&M and/or demolition costs.

C.1.5.2 Decontamination and Demolition

The Contractor shall perform Decontamination and Demolition of Inactive Facilities listed in table C.1.5.2.2 (a) including C-415, C-728, C-746-B (including all clean-out behind doors 1 and 2), C-746-M, C-408, and C-801 and any other

facilities as assigned. The decontamination and demolition of facilities includes all manmade structures, and generally includes the following activities: re-routing of utilities, hazardous material abatement activities, equipment removal, decontamination, and demolition of structures/components. The work shall be performed and completed consistent with regulatory agreements and decisions that may include consideration of specific buildings for re-use. The demolition of below-grade man-made structures shall be coordinated with site cleanup goals and the subsequent remediation of environmental media and shall be removed as directed by DOE.

The initial phase of a facility demolition will generally address above-grade structures; if soil remediation is not performed immediately the contractor shall perform appropriate activities to stabilize the area and prevent surface water accumulation in sub-grade structures. The stabilization of the area may include leaving the building slab in place until the area is ready for below grade demolition and remediation of contaminated media. In performing the work, the Contractor shall coordinate its activities with other site contractors/tenants to avoid and/or mitigate any interference with ongoing site work.

This work scope shall be considered complete following decontamination, demolition and disposition of all material associated with the designated facilities. This shall include all site restoration, demobilization activities, and submittal of a final Removal Action Completion Reports, where appropriate. As funding becomes available, facilities may be identified for demolition within the scope of this PWS.

The facilities have been maintained to a minimal level to ensure integrity of the structure safety envelope. The facilities exist in various states of repair; asbestos, uranium, heavy metals, and PCBs are the hazards of most concern. Facilities must be dispositioned as part of the activities. Some facilities may have classified material in them. The Contractor shall perform all activities to:

a) Prepare, complete, and submit all required CERCLA documentation (some actions may be done as DOE maintenance actions) for demolition of the facilities and assist in obtaining regulatory approval. Includes all applicable field work and analytical work necessary to support CERCLA documents.
b) Plan and conduct the response action in accordance with the CERCLA process for all structures. If selected within the Action Memorandum, then demolish all facilities to slab, if applicable, or at grade components. If selected within the Action Memorandum, sub-grade areas, including but not limited to basements, depressions, sumps, etc., shall be backfilled with an approved material suitable to prevent surface water accumulation and groundwater infiltration. Removal may include, but not be limited to, removal of clean-out, the facility equipment, personal property/fixtures, utility service components (including components leading up to the inactive facilities), tanks, sumps, asbestos, LLW, and PCB contaminated items.
c) Complete disposal of all wastes excavated or generated (see Table C.1.5.2.2 (b), all site restoration, demobilization activities, submit a final Removal Action Completion Report that is of sufficient quality such that the DOE and

regulator can approve it without further modification or correction, and complete RCRA closure of the RCRA storage facilities. Actively assist in obtaining regulatory approval.

Table C.1.5.2.1 Inactive Facilities Milestones/Schedule	
Milestone	**Date**
Complete CERCLA Documentation	As scheduled and approved by the CO

Table C.1.5.2.2 (a) Inactive Facilities

Building Number	Title	Approximate Floor Area (ft^2)	Description	Comments
C-746-B, Doors 1 and 2	Contained within South Warehouse	Contained within 71,100	54,000 ft^3 of primarily of scrap materials and equipment	Used for storage of miscellaneous materials and equipment, including a 13 foot long 42 inch diameter "A" line expansion joint (C-337-5A Bypass Line) containing an estimated 15,000 lbs of uranium oxide.
C-746-B	South Warehouse	71,100	Prefabricated metal building	Provided hazardous/flammable storage
C-728	Motor Cleaning Facility	1,597	Steel Light Frame	Used for maintenance shops and general motor cleaning
C-415	Feed Plant Storage	3,672	Steel light frame building	Used for tool cribs/dispensing/control
C-746-M	Waste Askarel Storage Facility	560	Prefabricated metal building	Used for general storage
C-408	50-ton Truck Scale	130	Unit Masonry	Used for weighing
C-801	Bus Shelter	1,080	Structural Steel and Corrugated Steel Siding	Shelter

The following table provides estimated quantities of material to be dispositioned:

Table C.1.5.2.2 (b) Inactive Facilities Waste Estimates

Waste Type	TSCA	Sanitary	MLLW	LLW
Quantity	Included in MLLW	35,000 ft3	34,000 ft3	474,000 ft3

NOTE: The quantities identified in this PWS are based upon current approximations; actual quantities may vary.

C.1.6 On-Site Waste Disposal Facility (OSWDF)

The Contractor shall assume responsibility for any and all OSWDF approvals, design, and construction, if selected as the preferred alternative for waste disposition through a ROD.

The Contractor shall complete the necessary designs and sequence the construction of an OSWDF consistent with the waste volumes to be generated in performance of this Task Order and over the planned lifecycle for the PGDP.

The DOE estimates a future need for disposal of approximately 3.7 million cubic yards of radioactively contaminated, non-radioactively contaminated, and hazardous material (soil and building debris), including sanitary waste (Table C.1.6(c)) through the end of D&D of the PGDP. The majority of this waste will be disposed of outside of the period of performance of this Task Order as it is currently associated with D&D of the GDP. Approximately 2,000 yd^3 of these volumes are classified waste. Currently, the majority of remediation-generated waste is being disposed at the onsite C-746-U landfill, EnergySolutions of Utah, and the Nevada Test Site.

Note: The quantities identified in this PWS are based upon current approximations; actual quantities may vary.

The following table provides estimated quantities of material to be dispositioned over the project life-cycle consistent with Table C.1.6(c):

Table C.1.6 (a) Life-cycle CERCLA Waste Estimates

Waste Type	TSCA	Sanitary	MLLW	RCRA	LLW
Quantity	13,000 yd3	1,079,000 yd3	63,300 yd3	16,700 yd3	2,547,000 yd3

The following table provides estimated quantities of material to be dispositioned during the contract performance period:

Table C.1.6 (b) CERCLA Waste Estimates

Waste Type	TSCA	Sanitary	MLLW	LLW
Quantity	2,500 yd3	125,000 yd3	9,000 yd3	170,000 yd3

Table C.1.6(c) Estimated Disposal Volumes by Waste Form for Waste Disposition Options Project through 2040

Waste form	LLW (yd^3)	LLW/RCRA (yd^3)	LLW/RCRA /TSCA (yd^3)	LLW/ TSCA (yd^3)	RCRA (yd^3)	TSCA (yd^3)	Sanitary (yd^3)	Total (yd^3)
Asbestos	3,742	21	24,773	0	0	4,031	980	33,547
Concrete	377,393	746	0	0	0	0	393,349	771,488
General Construction Debris	425,867	2,863	0	19	0	2,871	235,380	667,000
Other Dry Solids	45,951	95	5,325	167	542	780	4,172	57,032
Scrap Metal	407,746	172	0	0	0	3,676	68,827	480,421
Soil	1,286,267	29,154	12	0	16,121	1,685	376,273	1,709,512
Total	**2,546,966**	**33,051**	**30,110**	**186**	**16,663**	**13,043**	**1,078,981**	**3,719,000**

LLW = low-level waste
RCRA = Resource Conservation and Recovery Act of 1976
TSCA = Toxic Substances Control Act of 1976, Public Law 94-469, October 11, 1976, 15 USC Section 2622
Source: DOE/LX/07-0035&D1, Scoping Document for CERCLA Waste Disposal Alternatives Evaluation Remedial Investigation/Feasibility Study at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, April 2008

C.1.6.1 OSWDF Design

The Contractor shall perform all activities to:

a) The Contractor shall complete, as appropriate, OSWDF design, final WAC development, and prepare draft design packages consistent with the FFA SMP. The Contractor shall aggressively pursue completion of CERCLA design documents and WAC. Interaction with the regulators shall be coordinated through DOE. The Contractor shall ensure its plans are integrated with the Remediation Contractor's efforts to complete pre-ROD CERCLA documents and gain regulatory approval of the ROD.
b) In the event the ROD is not approved by the regulators upon expiration of the Remediation Contract, the Contractor shall complete all remaining pre-ROD and ROD CERCLA documents.
c) If the ROD selects the on-site disposal cell alternatives, the Contractor shall complete the design for the OSWDF.
d) Prepare, complete, and submit all post-ROD subsequent CERCLA documents consistent with the results of the RI/FS, Proposed Plan, and ROD that evaluated the waste disposal options for material generated from remediation, deactivation, decommissioning and decontamination activities at the PGDP. Includes all applicable fieldwork and analytical work necessary to support CERCLA documents. Documents are to be of sufficient quality such that DOE and regulators can approve them without further modification or correction. Actively assist in obtaining regulatory approval for any submittal.If the ROD selects the on-site disposal cell alternative, develop a plan to minimize the footprint for the portion of the disposal cell associated with the classified waste and provide it to DOE for approval.
e) Complete all critical decision documents and comply with all requirements for capital asset projects as required by DOE O 413.3B.

Table C.1.6.1 OSWDF Milestones/Schedule

Milestone	Date
Submit 30%, 60%, 90%, and Final Design Package	As established by the Contractor's Performance Baseline and approved by DOE

C.1.6.2 OSWDF Construction (As authorized by the CO)

The Contractor shall construct and operate the OSWDF under specified and approved plans and controls developed during the regulatory process, including but not limited to: waste placement, waste transport, storm water management, primary leachate and secondary leachate management, waste/soil compaction, dust control, nuclear safety, health and safety, security, and operations equipment/facility needs and use. Implement field activities in accordance with the ROD to support all waste disposal activities associated with the OSWDF and other projects as required.

C.1.7 Post-GDP Shutdown Environmental Services

Starting upon expiration of the Remediation Contract, the Contractor shall provide environmental services at the Paducah Site for the overall management of the activities being conducted under the FFA, RCRA, TSCA, and SMP. Transition of work elements under C.1.7 of this PWS shall begin 90 days prior to the expiration of the Remediation Contract.

The Contractor shall execute all work elements under C.1.7 of this PWS after transition is complete. This also includes environmental monitoring and reporting activities, operations of ongoing remedial actions, and activities being conducted in accordance with environmental programs and permits. Q Clearances are necessary, to perform some of the activities within this PWS Section. A Post-GDP Shutdown Environmental Services Accountable Property list is provided in Section J, Attachment J-13.

C.1.7.1 Reserved

C.1.7.2 Post-GDP Shutdown Groundwater Sources OU

General Information

TCE was discovered in residential wells north of the Paducah Site in 1988. DOE, the EPA and Kentucky entered into an Administrative Consent Order under Sections 104 and 106 of CERCLA that requires: 1) monitoring residential wells potentially affected by contamination; 2) providing alternative drinking water to residents with contaminated wells as specified by the DOE Action Memorandum for the Water Policy at the Paducah Gaseous Diffusion Plant (DOE/OR/06-1201&D2); and 3) investigation of the nature and extent of off-site contamination.

The Administrative Consent Order site investigation delineated two off-site groundwater contamination plumes, referred to as the Northwest and Northeast Plumes, and identified several potential on and off-site source areas requiring additional investigation and action. An additional on-site plume has been found to the southwest of the Paducah site. In addition, a series of Remedial Investigation/Feasibility Studies (RI/FS) were conducted under the FFA, including the evaluation of all potential major contaminant sources impacting groundwater and surface water. The project continues to evaluate on-going potential sources of contamination. In accordance with these investigations, DOE implemented interim actions that focused on reducing potential risks associated with off-site contamination.

The Southwest, Northwest and Northeast Plumes all have TCE and ^{99}Tc contaminants. Interim remedial actions were developed to mitigate and control the spread of highest concentration portion of the Northwest and Northeast plumes. To implement these two interim remedial actions, two pump-and-treat facilities have been installed. The Northwest Interim Record of Decision was signed in 1993, and the Northeast Interim Record of Decision was signed in 1995.

A preliminary study has been completed on the viability of utilizing natural attenuation as a final remedy. The preliminary study showed that aerobic degradation is occurring in the Regional Gravel Aquifer.

C.1.7.2.1 Pump and Treat Operations

The Contractor shall perform all activities to:

a) Operate and maintain the two installed groundwater pump-and-treat facilities in accordance with the approved operations and maintenance plans to control the highest concentration portion of the Northeast and Northwest Groundwater Plumes until regulatory approval is attained to cease operations, including preparation, completion and submittal of any applicable regulatory documents.
b) Sample and monitor the three plumes, and conduct analyses to determine the effectiveness of and the need for continued operation of the pump-and-treat system.
c) Continue and complete any ongoing optimization activities (e.g., Northeast Plume Optimization) as part of the site's overall groundwater strategy.
d) Prepare an updated TCE and ^{99}Tc plume map with current date every two years (currently odd years), including documentation showing how the map has changed and the data/information used to generate the maps.

C.1.7.2.2 C-400 Source Treatment Operations

The Contractor shall perform all activities to complete the ongoing remediation of the C-400 sources, including operation of the treatment system, shutdown and removal of the treatment system, development and submittal of all regulatory documents and reports, demobilization, site restoration and compliant waste disposal. All wastes excavated or generated during this project and all site restoration and demobilization activities. All wastes excavated or generated up to 90 days prior to the end of the Task Order must be disposed of prior to the end of the period of performance.

Table C.1.7.2.2 C-400 Source Treatment Operations Milestones/Schedule

Milestone	Date
D1 Remedial Action Completion Report for C-400 Phase II	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of FFA SMP.

C.1.7.2.3 Southwest Plume Source Treatment Operations

The Contractor shall perform all activities to complete the ongoing remediation of the Southwest Plume Sources, including operation of the treatment system/implementation of the remedy, shut-down and removal of the treatment system, development and submittal of all regulatory documents and reports,

demobilization, site restoration and compliance waste disposal. All wastes excavated or generated up to 90 days prior to the end of the Task Order must be disposed of prior to the end of the period of performance.

Table C.1.7.2.3 Southwest Plume Source Treatment Operations Milestones/Schedule	
Milestone	**Date**
D1 Remedial Action Completion Report(s)	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP.

C.1.7.3 Post-GDP Shutdown Soils and Surface Water OUs

Sites are included in this OU based on the expectation that they primarily pose a direct contact threat to on-site industrial workers and likely are not a migration threat to groundwater or they are part of site's surface water. The project shall incorporate results from previous actions and sitewide valuations/surveys. Results of the Soils OU RI will be used in scoping for and completion of the baseline ecological risk assessment conducted under the Surface Water OU.

The Contractor shall perform all activities necessary to meet the regulatory milestones specified in the FFA Site Management Plan; including the development and submittal of regulatory documents, any required field work, site restoration/demobilization. This includes activities necessary to support the baseline ecological risk assessment. Any wastes generated as part of this Task Order shall be compliantly disposed of.

The Contractor shall perform all activities to:

a) Prepare all CERCLA documents supporting the remediation of the Surface Water Operable Unit including Feasibility Studies, Proposed Plans, Records of Decision, and all subsequent CERCLA documents needed to implement the selected remedial action, and actively assist in obtaining regulatory approval. Includes all applicable field work and analytical work necessary to support development or implementation of CERCLA documents.
b) Completion of the remedial action for the Surface Water Operable Unit, including necessary excavation of portions of Bayou and Little Bayou Creek and other SWMUs within the SWOU.
c) Development and submittal of all regulatory documents and reports, demobilization, site restoration and compliant waste disposal. All wastes excavated or generated during this project and all site restoration and demobilization activities. All wastes excavated or generated up to 90 days prior to the end of the Task Order must be disposed of prior to the end of the period of performance.

C.1.7.4 Shutdown Burial Grounds Operable Unit (BGOU)

There are on-site burial grounds that are being investigated in the Post-GDP Shutdown Burial Grounds Operable Unit. Known contaminants include, but are not limited to, heavy metals, TCE, radioactive materials, and PCBs. The burial grounds may be contributing sources of TCE contamination to the Southwest and Northwest Dissolved Phase Plumes. These burial grounds contain various waste forms that include, but are not limited to radiologically contaminated (uranium, ^{99}Tc, etc.) dry active waste, debris, drummed sludges, metals, classified components, and excess equipment. The burial grounds at SWMUs 2, 4, 5, 6, 7, 13, 30, and 145 all have a soil cover (not a cap). The SWMUs cover an area of approximately 32,000 ft2, 286,700 ft2, 197,400 ft2, 13,500 ft2, 240,900 ft2, 294,000 ft 2, 128,000 ft2, and 44 acres, respectively. SWMU 3 (C-404 RCRA landfill) has a Subtitle C RCRA cap, though it has no subsurface liner, and is approximately 1.2 acres.

Though the final remedy will not be determined until the ROD is finalized for each SWMU or groups of SWMUs, the assumption is that SWMU 2, SWMU 3, and SWMU 4 will be excavated. Some wastes may meet the waste acceptance criteria for the C-746-U landfill. Other wastes will be disposed off-site, unless there is an on-site CERCLA cell that is able to accept those wastes. The assumption is also that the remaining SWMUs will have a regulatory compliant soil covers or cap and their wastes will remain in place. In addition, the assumption is that at least three burial grounds (SWMU 4, SWMU 7, and SWMU 2) will also require treatment within or below the buried waste for VOCs (TCE/TCA).

Table C.1.7.4 Post-GDP Shutdown Burial Grounds Milestones/Schedule

Milestone	Date
D1 SWMUs 5 and 6 Remedial Action Completion Report	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP.
D1 Remedial Investigation Addendum for SWMU 4	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP.
D1 Feasibility Study for SWMU 4	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP.
D1 Proposed Plan for SWMU 4	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP.

D1 SWMU 4 Record of Decision	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP.
D1 Land Use Control Implementation Plan	As established in the Contractor's performance baseline and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP.

C.1.7.4.1 Burial Grounds SWMUs 5 & 6 Cap

The Contractor shall perform all activities to:

a) Prepare all CERCLA documents supporting the remediation of the burial grounds including Feasibility Studies, Proposed Plans, Records of Decision, and all subsequent CERCLA documents needed to implement the selected remedial action, and actively assist in obtaining regulatory approval. Includes all applicable field work and analytical work necessary to support development or implementation of CERCLA documents.
b) Completion of 100% of the Subtitle D capping action for SWMUs 5 and 6 compliant with the applicable CERCLA Decision Documents.
c) Compliantly dispose of all wastes excavated or generated up to 90 days prior to the completion of the Task Order period.

C.1.7.4.2 Balance of BGOU

The Contractor shall perform all activities to:

a) Prepare all CERCLA documents supporting the remediation of the burial grounds including Feasibility Studies, Proposed Plans, Records of Decision, and all subsequent CERCLA documents needed to implement the selected remedial action, and actively assist in obtaining regulatory approval. Includes all applicable field work and analytical work necessary to support development or implementation of CERCLA documents.
b) For SWMU 4, complete all CERCLA documents supporting the remediation of the burial grounds including Feasibility Studies, Proposed Plans, Records of Decision, and all subsequent CERCLA documents needed to implement the selected remedial action, and actively assist in obtaining regulatory approval.
c) For SWMU 4, complete the selected remedial action, including any required excavation and disposition of excavated material.
d) For SWMU 4, development and submittal of all regulatory documents and reports, demobilization, site restoration and compliant waste disposal. All wastes excavated or generated during this project and all site restoration and demobilization activities. All wastes excavated or generated up to 90 days prior to the end of the Task Order must be disposed of prior to the end of the period of performance.
e) For SWMU 4, completion of any selected volatiles source treatment to address DNAPL and residual volatiles remaining under the burial cells.

C.1.7.5 Environmental Monitoring Program and Reporting

The Contractor shall perform the following programmatic Environmental Management System functions. This is an ongoing activity requiring the Contractor to perform environmental monitoring of on-site and off-site air, soils, and water, and to report results to DOE and regulators.

In order to protect the health and safety of the on-site workforce, the public, and the environment, monitoring of on-site and off-site air, soils, and water is continuously performed. An environmental monitoring program has been established. Agreements with the regulators have been made on the scope of the program. It is DOE's goal to continuously optimize the monitoring requirements through agreements with the regulators; however, the Contractor must obtain DOE and/or regulatory approval as appropriate prior to reducing any monitoring activities.

The Contractor shall perform all activities to:

a) Monitor and maintain the structural integrity of the groundwater monitoring wells (currently estimated at 356). Well maintenance includes, but is not limited to, replacing broken concrete pads surrounding the wells; repairing, replacing, extending the outer protective steel casing; repairing, replacing, installing vehicle guard posts around the wells; repairing and replacing casing covers, lock hasps, and hinges on outer protective casings; drilling weep holes in the outer protective casing; and painting the outside of the outer protective casings, including well rehabilitation or replacement, and abandonment as required.
b) Monitor all of the site's outfalls, seeps, in-stream surface water locations, and sediment monitoring locations.
c) Conduct thermoluminescent dosimeter (TLD) monitoring at an estimated 40 locations; aquatic and other biological monitoring; and landfill surface water and leachate monitoring.
d) Conduct monthly inspections of C-746-K and C-404 burial ground caps, and provide corrective maintenance as required.
e) Execute the Water Policy (interim control measure) to include management of license agreements (an estimated 101) with local residents and businesses to supply municipal water and license agreements (an estimated 2) to allow DOE to access and sample off-site monitoring and residential wells.
f) Maintain the license agreement with Kentucky Fish and Wildlife for management of the approximately 1,986 acres of DOE property not in the industrialized portion or buffer area of the plant. (REEMCBCDOE-03-12-0701)
g) Operate and maintain the Paducah Data Warehouse. Provide a web-based version for access by regulators, Citizens Advisory Board members, and the public.
h) Perform all environmental monitoring tasks necessary to support all site activities, including but not limited to sample collection, and analysis as necessary to prepare and submit reports.
i) Monitor all SWMUs in accordance with the RCRA permit.

j) Maintain, input, create reports, and complete all other activities necessary to manage environmental data generated by the Contractor's activities and data provided by other site Contractors. Ensure the data is current, complete, and compliant with Task Order requirements. This includes management of databases (e.g., Oak Ridge Environmental Information System (OREIS), Geographical Information System (GIS), Paducah Project Environmental Measurement System (Paducah PEMS)) transitioned to the Remediation Contractor or included as part of any regulatory agreement(s).
k) Provide SWMU notifications for work in all SWMUs at Paducah GDP in compliance with all legal requirements.
l) The Contractor shall conduct CERCLA Five Year Reviews in accordance with the Federal Facility Agreement.
m) Update, maintain, and comply with the existing Paducah Site Treatment Plan (STP) and obtain DOE approval of the STP is required prior to submittal to the regulators;
n) The Contractor shall perform sitewide environmental regulatory management for all site-wide permits, permit applications, and reports; site-wide NEPA documents; site-wide environmental reports, etc.). The Contractor shall administer the site program and provides required environmental information to support regulatory compliance and is responsible for compliance in areas under its cognizance, including NEPA. Provides required air and liquid effluents and near facility environmental monitoring; collects, compiles, and/or integrates air and liquid effluent monitoring data from operations and activities under its control. The Contractor shall provide environmental data to support the Annual Paducah Environmental Reports and integrates its environmental permitting and regulatory compliance activities with the Paducah-wide permitting and compliance framework.
o) The Contractor shall perform ambient air monitoring data to verify radionuclide levels in off-site ambient air in accordance with the Paducah Gaseous Diffusion Plant Department of Energy NESHAP Management Plan, BJC/PAD-141, February 2000, or updated version. The Contractor shall collect radionuclide samples surrounding the plant to capture airborne radionuclides emitted from all sources including fugitive and diffuse sources.
p) Perform air filter screening for development of the annual NESHAP report and reporting in the Annual Site Environmental Report.

C.1.7.6 Environmental Services Waste Operations

The Contractor to the extent necessary to comply with regulatory and DOE requirements, shall operate and maintain a compliant Waste Management Program. Waste is considered disposed of when it has been shipped to, and accepted for final disposition at, a properly licensed and permitted disposal site. The Contractor shall avoid generating waste with no pathway for disposal. The Contractor shall not generate TRU waste. The Contractor shall assist DOE in evaluating disposal site alternatives (e.g., cost/benefit analyses, NEPA documentation).

The Paducah Site has one 60-acre RCRA Subtitle D landfill (approximately 22 acres are permitted for disposal) that is currently operational and is designated

as the C-746-U landfill. The landfill waste acceptance criteria prohibits the disposal of classified, hazardous, or LLW. However, waste with residual radioactive material within authorized limits may be disposed in the C-746-U landfill. The location of the landfill is outside the security fence. Five of 23 cells within the C-746-U landfill are currently active. The landfill has a capacity to accept an estimated 1.96 million cubic yards of waste, and currently contains an estimated 300,000 cubic yards.

The Contractor shall perform all activities to:

a) Manage, characterize, process, and package all waste generated during this Task Order. The Contractor shall also be responsible for dispositioning all waste generated or received prior to 90 days before this Task Order expires. This includes final characterization, packaging, labeling, and final disposition of all acceptable waste (e.g. not sanitary waste) from the Infrastructure Contractor or that which was left behind by the Remediation Contactor, included within Table C.1.7.6, which provides volume estimates of the waste typically generated from routine Environmental Management Projects. These volumes do not include waste volumes from ongoing or upcoming CERCLA remediation projects or from GDP Deactivation and Stabilization activities.
b) Operate and maintain the waste storage facilities identified in Table C-2 to the extent required to support the Contractor's work scope.
c) Operate and maintain the three landfills (C-746-U, C-746-S, and C-746-T) in accordance with Kentucky regulations, DOE requirements (e.g., authorized limits), closure and post-closure requirements, and the operating permit, to include but not limited to, the following:
    1) Accept waste (including waste from other site contractors) that meets the requirements of the permit.
    2) Operate and maintain the leachate collection and treatment systems at C-746-U and C-746-S. Collect, characterize, transport, treat as necessary, and discharge an estimated 405,000 gallons of leachate from the C-746-U (365,000 gallons) and C-746-S (40,000 gallons) landfills annually at an approved wastewater treatment facility. C-746-U leachate is collected via underground pipes and pumped into leachate storage tanks. Leachate from C-746-S is collected in a sump and transferred into tanker trucks where it can be transferred to the leachate storage tanks. Leachate is treated either in the C-746-U leachate treatment system or via tanker trucks for treatment at C-615 when the C-746-U treatment system is unavailable or leachate treatment demands exceeds the C-746-U treatment system capacity such as during maintenance or discharges into outfall 19 from the sediment basin when the treatment system is not allowed to simultaneously discharge into the outfall.
    3) Be named as the operator on the permit for the C-746-U, C-746-S and C-746-T landfills, the RCRA permit, and the KPDES permit. If this work is subcontracted out, the Contractor shall remain named as the operator. Additionally, the Contractor shall be designated as the waste generator and responsible for making waste determinations at the site. The Contractor shall enter into a RCRA co-generator agreement with DOE consistent with the existing agreement at the Paducah Site.

4) Complete the design and gain regulatory approval (via permit modification) for design and construction of C-746-U Cells 7-11.

d) The Contractor shall continue any waste determination efforts regarding De-Listing Waste and as described within the 2003 Agreed Order Site-Wide Contained-In determinations.
e) Perform regulatory activities as identified in the 2003 Agreed Order associated with no further action determinations for SWMUs for DMSAs.
f) Comply with the agreement with the Tennessee Valley Authority Shawnee Fossil Plant for DOE to accept certain ^{99}Tc contaminated waste associated with the PDGP ^{99}Tc groundwater plume.

The following table provides estimated quantities of newly generated waste to be dispositioned:

Table C.1.7.6 Environmental Services Newly Generated Waste Estimates

Waste Type	Runoff from Waste facilities	LLW	TSCA	MLLW
Quantity	28,500 ft3 per year	26,300 ft3 per year	300 ft3 per year	325 ft3 per year

NOTE: The quantities identified in this PWS are based upon current approximations; actual quantities may vary.

C.1.8 Government-Furnished Property and Services

Section J, Attachment J-5, Government Furnished Services (GFS) and Interface Requirements Matrix identifies services that are provided by individual site contractors. Upon transition from USEC, the Contractor shall manage the Government furnished property (GFP) and/or equipment in accordance with the Infrastructure Contractor's Program Plans. The GFP list is provided in Section J, Attachment J-6, Government Furnished Property and Equipment.

DOE is committed to providing effective support to the Contractor throughout the period of Task Order performance, and the Contractor may request that DOE consider providing additional GFP or GFS. To manage the GFP or GFS to be furnished under the Task Order and to evaluate the additional GFP or GFS that may be required, the Contractor shall submit for DOE approval:

- GFP or GFS Request: 12-month advance projection of GFP or GFS to be furnished under the Task Order and additional contractor-requested GFP or GFS, prior to each fiscal year;
- Information that supports the improved performance for the cost saved as a result of having the requested GFP or GFS, and
- GFP or GFS Request Update: quarterly update to the projection of GFP or GFS to be furnished under the Task Order and additional contractor-requested GFP or GFS, prior to each quarter.

DOE shall review the 12-month and quarterly advance projections. If it is determined to be in the best interest of the Government, DOE shall notify the contractor within 30 days

that the additional contractor-requested GFP or GFS can be provided, and shall provide the contractor details regarding the DOE action(s). The supported GFP or GFS shall be added to the Section J, Attachment J-5, Government Furnished Services and Interface Requirements Matrix and Government Furnished Services, as a DOE commitment to the contractor.

If DOE cannot support a contractor request, DOE shall notify the contractor within 30 days that the requested GFP or GFS cannot be provided, and there shall be no DOE commitment to furnish the GFP or GFS. For the additional contractor requested GFP or GFS, DOE shall use its best efforts to meet these requests; however, in the event that DOE is unable, for any reason, to provide the contractor with its requested additional GFP or GFS, the Contractor shall remain fully and solely responsible for obtaining the needed services and/or information in a timely manner and without any further recourse against DOE.

The Contractor shall be responsible for its own services including, but not limited to, transportation, traffic management, shipping/receiving, scale calibrations, vehicle and equipment maintenance and management. The Infrastructure Contractor manages and administers the government vehicle and fleet program. As such, requests for government vehicles and fleet shall be coordinated with the Infrastructure Contractor. Additionally, the Contractor shall maintain equipment and appropriate certifications to ensure an effective transportation program.

C.1.9 Summary of Task Order Deliverables

Section J, Attachment J-2, Summary of Task Order Deliverables, summarizes the specific products the Contractor shall submit to the DOE, the type of action DOE shall perform, and the date/timeframe that the Contractor is required to submit the product.

Deliverables are considered contractor endpoints, work scope completions, products, reports or commitments that shall be delivered to DOE. The types of DOE action are defined as:

- Approve – The Contractor shall provide the deliverable to DOE for review and approval and is responsible for obtaining DOE approval. The initial deliverable shall be of sufficient quality, depth, thoroughness, and format to support DOE approval. DOE will review the deliverable and provide comments in writing. DOE comments will be discussed with the Contractor and the Contractor shall provide written responses. The Contractor shall revise the documents to incorporate all DOE mandatory comments. Once DOE approves a deliverable or document, the Contractor shall place it under change control and shall make no changes to that document without further DOE approval.
- Information – The Contractor shall provide the deliverable to DOE for information purposes. DOE shall have the option of reviewing the information and providing comments. The Contractor shall respond to all written comments.
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Section J, Attachment J-2, Summary of Task Order Deliverables does not include all required deliverables identified in other applicable sections of the Task Order, DOE directives, federal regulations, or regulatory documents. The Contractor shall be

responsible for the compliance with all applicable standards, orders and regulations under the Task Order.

TABLE C-1: LISTING OF GDP TRANSFER FACILITIES

Property ID	Property Name	Property Type	Preliminary Hazard Category	Gross Sqft
C-100-T04	Office Trailer	Trailer	Other Industrial	1,440
C-100-T05	Office Trailer	Trailer	Other Industrial	1,440
C-100-T06	Office Trailer	Trailer	Other Industrial	1,440
C-100-T07	Change House Trailer	Trailer	Other Industrial	1,440
C-100-T08	FOCI Office and Change House Trailer	Trailer	Other Industrial	1,440
C-102-T01	Office Trailer	Trailer	Other Industrial	1,440
C-102-T02	Office Trailer	Trailer	Other Industrial	1,440
C-102-T03	Office Trailer	Trailer	Other Industrial	1,440
C-102-T04	Office Trailer	Trailer	Other Industrial	1,440
C-102-T05	Office Trailer	Trailer	Other Industrial	1,440
C-102-T06	Office Trailer	Trailer	Other Industrial	1,440
C-102-T07	Office Trailer	Trailer	Other Industrial	1,440
C-102-T08	Office Trailer	Trailer	Other Industrial	1,440
C-102-T09	Office Trailer	Trailer	Other Industrial	1,440
C-302-T01	Power Operations Storage		Other Industrial	
C-320-A	Temporary Storage		Other Industrial	
C-320-B	Temporary Storage		Other Industrial	
C-331-T07	Instrument Mechanic Trailer	Trailer	Other Industrial	720
C-333-T06	Health Physics Office	Trailer	Other Industrial	96
C-333-T07	Feed Vaporization Facility	Trailer	Other Industrial	96
C-337-T01	Health Physics Office Trailer	Trailer	Other Industrial	96
C-337-T02	Health Physics Office Trailer	Trailer	Other Industrial	1,440
C-360-T01	Health Physics Office Trailer	Trailer	Other Industrial	96
C-360-T02	Cascade Operations Storage	Building	Other Industrial	36
C-607	Emergency Air Compressor Generator Build	Building	Other Industrial	2,000
C-615-J	Chromate Lift Station (Abandoned)		Other Industrial	
C-615-K	Chromate Lift Station (Abandoned)	OSF	Other Industrial	
C-617-C	Outfall 13 Wetland & Pond	Land	Other Industrial	
C-637-T01	Health Physics Office Trailer	Trailer	Other Industrial	160

C-720-C1	Paint Shop	Building	Other Industrial	5,120
C-720-E	Change House Addition	Building	Other Industrial	3,467
C-720-G	Warehouse	Building	Other Industrial	10,800
C-720-H	Warehouse	Building	Other Industrial	2,400
C-720-L	Oxygen Facility		Other Industrial	
C-720-M	Computer Maintenance Trailer	Trailer	Other Industrial	1,440
C-720-M T01	Computer Maintenance Storage Trailer		Other Industrial	
C-720-M T02	Computer Maintenance Storage Trailer		Other Industrial	
C-720-R	Mass Spectrometer Repair Trailer	Trailer	Other Industrial	250
C-720-S	Instrument Maintenance Trailer		Other Industrial	
C-720-T	Electrical Maintenance Trailer		Other Industrial	
C-720-T08	Mobile Office	Trailer	Other Industrial	200
C-720-U	Computer Maintenance Storage Trailer		Other Industrial	
C-721	Gas Manifold Storage	Building	Other Industrial	962
C-724-A	Carpenter Shop Annex	Building	Other Industrial	3,900
C-724-B	Carpenter Shop	Building	Other Industrial	10,215
C-724-C	Paint Shop	Building	Other Industrial	1,600
C-724-D	Lumber Storage Building	Building	Other Industrial	2,880
C-724-T01	Change House Trailer		Other Industrial	
C-725	Paint Shop	Building	Other Industrial	410
C-726	Sandblast Building	Building	Radiological	2,019
C-729	Acetylene Building	Building	Other Industrial	430
C-730	Maintenance Service Building	Building	Other Industrial	1,057
C-731	Railroad Repair Equipment Storage Building	Building	Other Industrial	1,280
C-732	Maintenance Materials Storage Building	Building	Other Industrial	1,680
C-740	Material Yard	OSF	Other Industrial	
C-740-A	Semi-Trailer Unloading Facility	OSF	Other Industrial	
C-740-B	Oil Drum Storage Shelter	Building	Other Industrial	2,800
C-741	Mobile Equipment Building	Building	Other Industrial	5,360
C-742	Cylinder Storage Building	Building	Other Industrial	2,745
C-743	Office Building	Building	Other Industrial	9,973
C-743-A	Health Physics Storage		Other Industrial	
C-743-A1	Storage Shed		Other Industrial	
C-743-A2	Storage Shed		Other Industrial	
C-744	Material Handling Building	Building	Other Industrial	6,400

C-745-X	Equipment Storage Yard	OSF	Other Industrial	
C-745-Y	Equipment Storage Yard		Other Industrial	
C-745-Z	Equipment Storage Yard		Other Industrial	
C-745-Z1	Construction Spoils Area		Other Industrial	
C-746-G	Electrical Equipment Storage	Building	Other Industrial	2,400
C-746-G-T01	Electrical Equipment Storage		Other Industrial	
C-746-G-T02	Electrical Equipment Storage		Other Industrial	
C-746-H1	PEM Storage Slab	OSF	Other Industrial	
C-746-H2	PEM Storage Slab	OSF	Other Industrial	
C-754	Low-Level Waste Storage		Radiological	
C-754-A	Waste Management Staging Area		Radiological	
C-754-B	Low-Level Waste Storage		Other Industrial	
C-757	Solid & Low-Level Waste Processing Facility		Radiological	
C-757-T01	Health Physics Office		Other Industrial	
C-800-T01	Technician Office Trailer		Other Industrial	
C-802	Meteorological Tower	OSF	Other Industrial	
C-102	Hospital	Building	Other Industrial	11,666
C-300 - 531	Instrumentation Tunnel		Radiological	
C-300 - 533	Instrumentation Tunnel		Radiological	
C-300 - 535	Instrumentation Tunnel		Radiological	
C-300 - 537	Instrumentation Tunnel		Radiological	
C-331-A	Contractor Staging Area West		Radiological	
C-331-B	Contractor Staging Area East		Radiological	
C-410-D	Fluorine Storage Building	Building	Other Industrial	1,526
C-410-K	Fluorine Facility	Building	Other Industrial	
C-540-A	Oil Pump House	Building	Other Industrial	312
C-540-B	Oil Storage Tank (Northwest)	OSF	Standard Industrial	
C-540-C	Oil Storage Tank (Southwest)	OSF	Standard Industrial	
C-540-D	Oil Storage Tank (Northeast)	OSF	Standard Industrial	
C-540-E	Oil Storage Tank (Southeast)	OSF	Standard Industrial	
C-541-A	Oil Pump House	Building	Other Industrial	312
C-541-B	Oil Storage Tank (Northwest)	OSF	Standard Industrial	

C-541-C	Oil Storage Tank (Southwest)	OSF	Standard Industrial	
C-541-D	Oil Storage Tank (Northeast)	OSF	Standard Industrial	
C-541-E	Oil Storage Tank (Southeast)	OSF	Standard Industrial	
C-615-L	Oil Control Monitoring Station	Building	Other Industrial	144
C-615-M	Oil Control Structure	OSF	Other Industrial	
C-615-N	Oil Contaminated Lagoon		NA	
C-615-O	Oil Control Building	Building	Other Industrial	144
C-616-A	Chemical Feed Building	Building	Other Industrial	2,000
C-616-B	Clarifier-East		Other Industrial	
C-616-C	Lift Station		Other Industrial	
C-616-D	Sludge Vault and Valve Pit		Radiological	
C-616-F	Full Flow Lagoon		Other Industrial	
C-616-G	Tank Farm (2 15,000 gal tanks)		Other Industrial	
C-616-H1	Ferrous Sulfate Storage Tank (East)	OSF	Other Industrial	
C-616-H2	Ferrous Sulfate Storage Tank (West)	OSF	Other Industrial	
C-616-J	Reduction Tank-East		Other Industrial	
C-616-K	Service Building	Building	Other Industrial	420
C-616-L	Effluent Control Vault	Building	Other Industrial	96
C-616-M	Clarifier-West		Other Industrial	
C-616-N	Reduction Tank-West		Other Industrial	
C-616-P	Sludge Vault and Valve Pit		Radiological	
C-616-Q	Flyash Settling Lagoon		Other Industrial	
C-617-A	Effluent Control Station	Building	Other Industrial	256
C-617-B	Effluent Control Lagoon	OSF	Other Industrial	
C-631-10	Asbestos Crew Storage		Other Industrial	
C-631-12	Asbestos Crew Storage		Other Industrial	
C-631-13	RCW Equipment Storage		Other Industrial	
C-631-15	RCW Equipment Storage	Building	Other Industrial	192
C-631-3	Fire Water Pump House	Building	Other Industrial	1,196
C-631-4	Blending Pump House	Building	Other Industrial	1,540
C-631-T08	Asbestos Decon Trailer	Trailer	Other Industrial	196
C-631-T09	Asbestos Crew Breakroom Trailer	Trailer	Other Industrial	776
C-631-T11	Instrument Maintenance Trailer	Trailer	Other Industrial	720
C-631-T14	RCW Supervisor's Office	Trailer	Other Industrial	320
C-631-T16	Maintenance Trailer	Trailer	Other Industrial	360
C-633-1	Pump House	Building	Other Industrial	10,245

C-633-3	Blending Pump House	Building	Other Industrial	1,984
C-633-6	Sand Filter Building	Building	Other Industrial	260
C-635-1	Pump House	Building	Other Industrial	8,505
C-635-2	Cooling Tower	OSF	Other Industrial	
C-635-3	Blending Pump House	Building	Other Industrial	1,984
C-635-4	Blending Cooling Tower (North)	OSF	Other Industrial	
C-635-5	Blending Cooling Tower (South)	OSF	Other Industrial	
C-637-1	Pump House	Building	Other Industrial	10,245
C-637-2A	Cooling Tower (South)	OSF	Other Industrial	
C-637-2B	Cooling Tower (North)	OSF	Other Industrial	
C-637-3	Blending Pump House	Building	Other Industrial	2,084
C-637-4	Blending Cooling Tower (North)	OSF	Other Industrial	
C-637-5	Blending Cooling Tower (South)	OSF	Other Industrial	
C-637-6	Sand Filter Building	Building	Other Industrial	260
C-720-D	Transformer Building	Building	Other Industrial	400
C-720-J	Air Lock	Building	Other Industrial	920
C-722	Acid Neutralization Pit		Other Industrial	
C-742-B	Drying Agent Cylinder Storage	Building	Other Industrial	255
C-745-J	Radioactive Material Storage Area		Other Industrial	
C-310 331-A	Enclosed Bridge		Radiological	
C-310 331-B	Tie Line		Category 2	
C-320	Communication Building	Building	Other Industrial	1,116
C-350	Drying Agent Storage Building	Building	Other Industrial	1,570
C-375-04	C-615 Sec. Basin EF (KPDES 004)		Radiological	
C-375-06	C-611 No. Lagoon (KPDES 006)		Radiological	
C-375-16	Plant Sur. Runoff Outfall (KPDES 016)		Radiological	
C-375-E2	Oil Control Dam (KPDES 002)		Radiological	
C-375-E3	Oil Control Dam (KPDES 010)		Radiological	
C-375-E4	Oil Control Dam (KPDES 011)		Radiological	
C-375-E5	Oil Control Dam (KPDES 012)		Radiological	
C-375-E6	Plant Sur. Runoff Outfall (KPDES 013)		Radiological	
C-375-S6	Oil Control Dam (KPDES 009)		Radiological	

C-375-W7	Oil Control Dam (KPDES 008)		Radiological	
C-400	Cleaning Building	Building	Category 2	116,140
C-400-D	Fluorine Storage Building		Category 2	
C-409	Stabilization Building	Building	Category 2	26,797
C-620	Air Compressor Room	Building	Radiological	10,000
C-631-1	Pump House	Building	Other Industrial	9,700
C-720	Maintenance and Storage Building	Building	Category 2	299,944
C-720-A	Compressor Shop Addition	Building	Category 2	1,600
C-720-B	Machine Shop Addition	Building	Category 2	1,700
C-720-C	Converter Shop Addition	Building	Category 2	28,134
C-720-K	Instrument Shop Addition	Building	Category 2	1,520
C-746-Q1	High Assay Waste Storage Facility	Building	Category 2	16,335
C-300	Central Control Building	Building	Other Industrial	16,022
C-310	Purge and Product Building	Building	Category 2	112,240
C-310-A	Product Withdrawal Building	Building	Category 2	3,276
C-315	Surge and Waste Building	Building	Category 2	16,040
C-331	Process Building	Building	Category 2	1,029,120
C-333	Process Building	Building	Category 2	2,130,120
C-333-A	Feed Vaporization Facility	Building	Category 2	8,305
C-335	Process Building	Building	Category 2	1,029,120
C-337	Process Building	Building	Category 2	2,130,120
C-337-A	Feed Vaporization Facility	Building	Category 2	8,556
C-360	Toll Transfer and Sampling Building	Building	Category 2	17,800
C-360-A	Toll Transfer and Sampling Building Annex	Building	Category 2	
C-315- 331	Tie Line		Category 2	
C-331-333-A	Enclosed Bridge		Radiological	
C-331-333-B	Tie Line (East)		Category 2	
C-331-333-C	Tie Line (West)		Category 2	
C-331-335	Tie Line		Category 2	
C-331-410	Tie Line		Category 2	
C-335-337-A	Enclosed Bridge		Radiological	
C-335-337-B	Tie Line (North)		Category 2	
C-335-337-	Tie Line (South)		Category 2	

C				
C-633-2A	Cooling Tower (South)	OSF	Other Industrial	
C-633-2B	Cooling Tower (North)	OSF	Other Industrial	
C-633-4	Blending Cooling Tower (North)	OSF	Other Industrial	
C-633-5	Blending Cooling Tower (South)	OSF	Other Industrial	
C-200	Guard and Fire Headquarters	Building	Other Industrial	19,490
C-200-A	C-200 Annex		Other Industrial	
C-200-B	Storage Trailer	Trailer	Other Industrial	
C-201	Emergency Equipment Storage Building	Building	Other Industrial	864
C-201-A	Emergency Equipment Storage Building	Building	Other Industrial	
C-201-B	Emergency Equipment Storage Building	Building	Other Industrial	
C-201-C	Emergency Equipment Storage Building	Building	Other Industrial	
C-201-D	Emergency Equipment Storage Building	Building	Other Industrial	
C-202	Guard Training Building	Building	Other Industrial	3,446
C-203	Emergency Vehicle Shelter	Building	Other Industrial	1,800
C-205	Respirator Issue Building		Other Industrial	
C-206	Pumper Drafting Pit	OSF	Other Industrial	
C-206-A	Storage Trailer		Other Industrial	
C-206-B	Smoke Training Facility		Other Industrial	
C-207	Fire Training Facility	Building	Other Industrial	900
C-212	Office Building	Building	Other Industrial	3,471
C-212-A	Main Guard Post (Gate 15)	Building	Other Industrial	280
C-214	Post 57, Access Road		Other Industrial	
C-215	Portals 18 and 19	Building	Other Industrial	1,045
C-216	Post 47	Building	Other Industrial	500
AREA	Raw Water Supply Lines		NA	
AREA	Underground Sewer Lines		NA	
AREA	Underground Sanitary Water Lines		NA	
C-212-U	Utility Operations Office	Building	Other Industrial	1,715
C-224	Post 15		Other Industrial	
C-225	Post 48		Other Industrial	
C-229	Post 229		Other Industrial	
C-220-A	Power Distribution System	OSF	NA	
C-230-A	Sanitary Water System	OSF	NA	
C-230-B	Sanitary Sewer System	OSF	NA	
C-230-C	Storm Sewer System	OSF	NA	

C-230-D	Chilled Water System		NA	
C-230-E	Plant (Process) Water System	OSF	NA	
C-230-F	Process Wastewater System		NA	
C-230-G	Recirculating Cooling Water System	OSF	NA	
C-230-H	High-Pressure Fire Water System		NA	
C-230-J	Process Waste Heat Utilization System	OSF	NA	
C-232-A	Nitrogen System		NA	
C-232-B	Compressed Air System		NA	
C-232-C	Acetylene / Oxygen System		NA	
C-232-D	Steam Distribution System	OSF	NA	
C-232-E	Natural Gas System		NA	
C-302	Operations Division Data Center	Building	Other Industrial	7,366
C-303	Supervisory Control and Data Acquisition	Building	Other Industrial	2,109
C-304	Training and Cascade Office Building	Building	Other Industrial	8,000
C-400-A	Emergency Power for Critical Alarms	Building	Other Industrial	100
C-407	Nitric Acid Storage Tank	OSF	Standard Industrial	
C-408	50-Ton Truck Scale	Building	Standard Industrial	100
C-531-1	Switch House	Building	Other Industrial	31,400
C-531-2	Switchyard	OSF	Other Industrial	
C-531-3A	Fire Valve House No. 1	Building	Other Industrial	144
C-531-3B	Fire Valve House No. 2	Building	Other Industrial	144
C-532	Relay House	Building	Other Industrial	7,784
C-533-1	Switch House	Building	Other Industrial	37,360
C-533-2	Switchyard	OSF	Other Industrial	
C-533-3A	Fire Valve House No. 1	Building	Other Industrial	144
C-533-3B	Fire Valve House No. 2	Building	Other Industrial	144
C-533-3C	Fire Valve House No. 3	Building	Other Industrial	144
C-533-3D	Fire Valve House No. 4	Building	Other Industrial	144
C-535-1	Switch House	Building	Other Industrial	28,000
C-535-2	Switchyard	OSF	Other Industrial	
C-535-3A	Fire Valve House No. 1	Building	Other Industrial	144
C-535-3B	Fire Valve House No. 2	Building	Other Industrial	144
C-535-4	Test Shop (Maintenance Office)	Building	Other Industrial	480
C-536	Relay House	Building	Other Industrial	7,784

C-537-1	Switch House	Building	Other Industrial	42,140
C-537-2	Switchyard	OSF	Other Industrial	
C-537-3A	Fire Valve House No. 1	Building	Other Industrial	144
C-537-3B	Fire Valve House No. 2	Building	Other Industrial	144
C-537-3C	Fire Valve House No. 3	Building	Other Industrial	144
C-537-3D	Fire Valve House No. 4	Building	Other Industrial	144
C-537-4	Test Shop	Building	Other Industrial	480
C-600	Steam Plant	Building	Other Industrial	47,424
C-601	Nitrogen Generator Building Addition	Building	Other Industrial	2,250
C-601-A	Steam Plant Fuel Storage Tank (Center)	OSF	Other Industrial	
C-601-B	Steam Plant Fuel Storage Tank (South)	OSF	Other Industrial	
C-601-C	Steam Plant Fuel Oil Pump House	Building	Other Industrial	148
C-601-D	Fuel Storage Tank (North)	OSF	Other Industrial	
C-602	Coal Storage Yard		Other Industrial	
C-603-E	Nitrogen Storage Tank (E)		Standard Industrial	
C-603-F	Nitrogen Storage Tank (C)		Standard Industrial	
C-603-G	Nitrogen Storage Tank (W)		Standard Industrial	
C-604	Utilities Maintenance Building	Building	Other Industrial	2,400
C-604-A	Utilities Storage Building	Building	Other Industrial	290
C-605	Substation Building	Building	Other Industrial	1,200
C-606	Coal Crusher Building	Building	Other Industrial	1,470
C-611-A	Building and Shop Storage	Building	Other Industrial	504
C-611-A1	Activated Carbon Storage Facility		Other Industrial	
C-611-B	Head House	Building	Other Industrial	1,215
C-611-B1	Polymer Feed System Enclosure	Building	Other Industrial	285
C-611-C	Flocculator Basin	OSF	Other Industrial	
C-611-D	Settling Basin (Northeast)		Other Industrial	
C-611-E	Settling Basin (Northwest)		Other Industrial	
C-611-F	Settling Basin (Southeast)		Other Industrial	
C-611-F1	Secondary Coagulation Basin	OSF	Other Industrial	
C-611-F2	Chemical Feed Building for C-611-F1	Building	Other Industrial	589
C-611-F3	Activated Carbon Feed Building		Other Industrial	
C-611-G	Settling Basin (Southwest)		Other Industrial	
C-611-H	Filter Building and Pump	Building	Other Industrial	13,067

	Station			
C-611-I	Clear Well		Other Industrial	
C-611-O	Sanitary Water Storage Tank	OSF	Other Industrial	
C-611-P	Pump House	Building	Other Industrial	902
C-611-Q	36" Raw Water Line Booster Station	Building	Other Industrial	392
C-611-R	Water Tank-RCW Fire Water (High Pressure	OSF	Other Industrial	
C-611-S	Storage and Chlorine Facility	Building	Other Industrial	1,120
C-611-T	Booster Pump Station Plant Water	OSF	Other Industrial	
C-611-T01	Instrument Maintenance Trailer	Trailer	Other Industrial	670
C-611-U	Softening Facility (West)	OSF	Other Industrial	
C-611-V	Sludge Lagoon	OSF	Other Industrial	
C-611-V1	Sludge Lagoon	OSF	Other Industrial	
C-611-W	Sludge Lagoon	OSF	Other Industrial	
C-611-X	Softening Facility (East)	OSF	Other Industrial	
C-611-Y	Recycle Lagoon	OSF	Other Industrial	
C-611-Z	Flocculator Basin		Other Industrial	
C-615	Sewage Disposal Plant	Building	Radiological	806
C-615-A	Primary Settling Tank	OSF	Radiological	
C-615-B	Final Settling Tank	OSF	Radiological	
C-615-C	Oil Control Building	Building	Radiological	1,308
C-615-D	Digester	OSF	Radiological	
C-615-E	Trickling Filter		Radiological	
C-615-F	Trickling Filter Sludge Beds		Radiological	
C-615-G	Sewage Lift Station	OSF	Other Industrial	
C-615-H	Sewage Lift Station	OSF	Other Industrial	
C-615-H1	Sewage Lift Station	OSF	Other Industrial	
C-615-H2	Sewage Lift Station	OSF	Other Industrial	
C-615-H3	Sewage Lift Station	OSF	Other Industrial	
C-615-H4	Sewage Lift Station	OSF	Other Industrial	
C-615-H4A	Sewage Lift Station (TBD)	OSF	Other Industrial	
C-615-H5	Sewage Lift Station (TBD)	OSF	Other Industrial	
C-615-H6	Sewage Lift Station (TBD)	OSF	Other Industrial	
C-615-H7	Sewage Lift Station (TBD)	OSF	Other Industrial	
C-615-H8	Sewage Lift Station (TBD)	OSF	Other Industrial	
C-631-2	Cooling Tower	OSF	Other Industrial	
C-631-5	Blending Cooling Tower (West)	OSF	Other Industrial	

C-631-6	Blending Cooling Tower (East)	OSF	Other Industrial	
C-635-6	Process Waste Heat Utilization Pump House	Building	Other Industrial	2,556
C-709	709 Plant Laboratory Annex		Radiological	
C-710	Technical Services Building	Building	Category 2	84,333
C-710-A	Gas Cylinder Storage Building	Building	Other Industrial	400
C-710-B	Storage Facility		Other Industrial	
C-711	Gas Manifold	Building	Other Industrial	962
C-712	Acid Neutralization Pit		Other Industrial	
C-727	90-Day Mixed Waste Accumulation Facility	Building	Radiological	4,428
C-746-X	Electrical Equipment Storage Building		Other Industrial	
C-802B	Meteorological Equipment Building	Building	Other Industrial	24

Table C-2 Environmental Services Waste Storage Facilities							
Building Number	**Building Title**	**Square Feet**	**Bldg. Description**	**Waste Type**			
				RCRA	**RCRA/ TSCA**	**TSCA**	**LLW**
C-301	LLW Waste Storage	2,802	Concrete pad with roof				X
C-733	Waste Oil and Chemical Storage Facility	4,224	Covered structure enclosed by a wall on one side and fencing on the other sides. This building is RCRA permitted and holds the flammable/ignitable hazardous material. Several large tanks are here for batching/transfer operations.	X	X		X
C-746-A	North Warehouse	63,100	Prefabricated Metal building – provides hazardous/flammable storage	X			X
C-746-B	South Warehouse	71,100	Prefabricated Metal building – provides hazardous/flammable storage	X			X
C-746-H3	Storage Area	56,150	Concrete slab for 90-day storage of RCRA material. Two clean shell structures are located on the pad for storing LLW and solid waste.	X			X
C-746-M	Waste Uranium Chip Storage	432	Prefabricated metal building. No uranium chips are currently stored here				X
C-746-Q	Hazardous and Low-Level Waste Storage Facility	33,165	Prefabricated metal building that stores RCRA and LLW. Hazard Category 2 Facility. Material that requires nuclear criticality storage is located here. A block wall separates it from C-746-Q1.	X	X	X	X
C-746-V	Waste Staging Area	10,000	Outside gravel pad. LLW and solid waste is temporarily stored here.				X
C-752	Waste Holding Pad	8,800	Concrete slab for outside holding of waste material.				
C-752-A	Waste Storage Facility	43,600	Prefabricated metal building used for operations and storage of waste. This building is permitted for RCRA storage and treatment. The southeast corner of the building has a structure for waste treatment that can be isolated from the rest of the building and hooked to air containment systems. Treatment for wastewater occurs here by activated carbon or a low capacity ultraviolet light system. The building is also used for sorting and packaging waste.	X	X	X	X
C-753-A	TSCA Storage Facility	31,600	Prefabricated metal building used for storage of TSCA waste. Sorting and packing operations also occur here.			X	X

"X" indicates the type of waste that can be stored in the facility