

**PART I – THE SCHEDULE  
SECTION C  
STATEMENT OF WORK**

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**PART I – THE SCHEDULE  
SECTION C  
STATEMENT OF WORK<sup>1</sup>**

**C.1 SUMMARY DESCRIPTION OF WORK**

The U.S. Department of Energy (DOE) Office of River Protection (DOE-ORP) River Protection Project (RPP) is composed of two major scopes of work performed by two separate contractors. CH2M HILL Hanford Group, Inc (hereafter referred to as the “Contractor”) shall be responsible for planning, managing, and executing the Tank Farm Contract (TFC) projects, operations, and other activities as described in more detail in Section C.3, *River Protection Project -Technical Scope*, of this Statement of Work. The Hanford Waste Treatment and Immobilization Plant (WTP) contractor will design, construct and commence operations of the WTP for treating the tank farm waste.

The Contractor shall be responsible for interfacing and coordinating with other Hanford Site prime contractors in the performance of this work. The Contractor shall ensure that requirements for services it provides to other Hanford Site contractors, and receives from other site contractors are integrated with other Hanford Site contractors and provided for in the baseline. The Contractor shall establish appropriate arrangements with other Hanford Site prime contractors for the tasking of work. These arrangements shall anticipate the transition of existing Hanford Site prime contracts as the successor contracts are implemented.

The Contractor shall conduct business at the Hanford Site consistent with the following outcomes:

- Maintain Tank Farms waste and infrastructure in a safe environmentally compliant and stable configuration.
- Retrieve tank wastes to the extent needed for tank closure and deliver to the WTP contractor for treatment and immobilization.
- The immobilized low-activity waste (ILAW) fraction will be properly disposed either onsite or offsite.
- The immobilized high-level waste (IHLW) fraction will be interim stored until it can be shipped offsite for disposal (planned for the Yucca Mountain geologic repository).
- Efficiently and cost effectively close all Hanford Tank Farms.

Success in achieving these outcomes shall consider the following factors:

- Protection of worker safety and health, public safety and health, and the environment;
- Leadership and management effectiveness (Operations Management);
- Management responsiveness to customers (Customer Service);
- Responsive communications with external and internal Hanford customers; and
- Proficient partnering with other Hanford Site prime contractors.

Specific performance objectives, measures, and expectations are detailed in Section J, Appendix D, *Performance Based Incentives*, and Section C.3, *River Protection Project – Technical Scope*.

The Contractor shall integrate safety and environmental awareness into all activities, including those of subcontractors at all levels consistent with Integrated Safety Management principles. Work must be accomplished in a manner that achieves high levels of quality, protects the environment, the safety and

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<sup>1</sup> This conformed copy of Contract No. DE-AC27-99RL14047 has incorporated text referencing the Rocky Flats Pension and Post Retirement Benefit Plans (PRB) from Modification M126.

health of workers and the public, and complies with requirements. The Contractor shall identify hazards, manage risks, identify and implement good management practices, and make continued improvements in environment, safety, health, and quality (ESH&Q) performance.

The Contractor shall seek ways to streamline work processes by the use of necessary and sufficient standards and requirements. This includes requesting relief in the form of exemptions from requirements when appropriate, such as when the cost of the requirement will exceed its expected benefits.

The Contractor shall furnish, or cause to be furnished, all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this Contract as furnished by the Government), and otherwise do all things necessary for, or incident to, providing its best efforts so as to carry out in an efficient and effective manner all necessary work set forth in this Contract.

This Contract is intended to perform work necessary to reduce the potential risk to the public and the environment from the tank waste stored on the Hanford Site. It is also intended to meet the DOE legal obligations and commitments in carrying out this work. This Contract will be changed as required to assure that applicable legal obligations and commitments will be met.

## **C.2 MANAGEMENT WORKSCOPE**

### (a) Project Management Planning

The Contractor shall implement and maintain an integrated project management system to support safe, efficient, and measurable progress. The project management system shall include the processes and implementing procedures necessary to plan, execute, and control all work to be performed under this Contract.

DOE will continuously seek to improve Project performance under this Contract, and will actively seek effective Contractor project management and execution. The project management system shall be structured to provide early and continuous identification of opportunities to improve Project performance.

- (1) Project Integration and Control: The Contractor is responsible to integrate and control the Tank Farm Project, and shall coordinate and integrate all project activities. As part of the project integration responsibilities, the Contractor shall develop a Tank Farm Project Management Plan (PMP), execute the plan, and coordinate changes to the plan across the Project in accordance with DOE Order 413.3, *Program and Project Management for the Acquisition of Capital Assets*.

The Contractor shall perform planning based on the requirements, interfaces, endpoint targets and performance objectives provided in DOE guidance and approved Performance Based Incentives (PBIs). This planning activity shall utilize systems engineering techniques assuring that the Contractor's workscope is integrated.

The Contractor shall support required revisions of the River Protection Project System Plan and other RPP strategic planning documents and will participate with other DOE prime contractors, regulators, stakeholders, and customers in strategic situation analysis, integrated baseline development discussions and issue definition, and resolution. This planning shall look beyond the period of this Contract to encompass the life-cycle of RPP projects.

- (2) Project Scope, Schedule, and Cost Baseline: The Contractor shall complete and maintain an integrated life-cycle baseline which reflects: (a) technical scope of work specified in this Contract, (b) project/program schedules with critical paths

identified, and (c) a cost profile based on a resource-loaded schedule. The Contractor shall use industry-proven methodology, which will interface with DOE specific management information systems, in the preparation of this technical, schedule and cost baseline. The baseline shall be the basis for budget development, input to risk analysis, and prioritization of work. The baseline shall be developed and implemented in the Contractor's management system and shall be linked to the WTP contractor baselines to provide an integrated RPP baseline. Specifically, the Contractor shall, as identified in the approved baseline scope, provide the following:

- (i) Organize the technical scope of work to be planned, managed, integrated, and reported using conventional project management techniques. The Contractor shall develop and use a Work Breakdown Structure (WBS), which will align with the DOE-ORP WBS.
- (ii) Implement a systems engineering process, which supports the management and integration of workscope activities. The Contractors' selected approach to systems engineering should be based on industry practices and should utilize a graded approach, as necessary.
- (iii) Develop and implement a risk management process utilizing a graded approach, which supports the management and integration activities under the authority of the Contract.
- (iv) Use a "graded approach" to determine applicable sets of requirements for use in design, management and operation of the individual facilities, and execution of projects and programs, with due consideration for industry standards, elimination of redundant requirements, value added, and the level of risk associated with each facility or program.
- (v) Incorporate the requirements of the *National Environmental Policy Act of 1969* (NEPA) into the planning process for activities covered in this Contract.
- (vi) Provide support to DOE-ORP planning and integration activities. Conduct studies and analyses of RPP/Hanford systems and information, which supports DOE-ORP internal and external management needs. The Contractor shall provide support in: 1) corporate strategic planning, 2) policy development, 3) management information systems, and 4) baseline management and reporting. Studies and analyses include identification and development in conjunction with DOE of breakthroughs that significantly improve baseline performance and lifecycle costs or improve work processes.
- (vii) Provide support for review of TFC planning and operations by both internal (DOE-ORP) and external (DOE-Headquarters, Inspector General, Defense Nuclear Facilities Safety Board, U.S Environmental Protection Agency, Washington State Department of Ecology, etc.) agencies. This will include resolution of issues and concerns following a review.
- (viii) The RPP baseline will be maintained, revised, and updated, if needed, annually. Following the WTP contractors submission of their Baseline Update, the Contractor shall perform an analysis of the integration of the WTP and TFC schedules and prepare an integrated River Protection

Project (RPP) baseline. DOE-ORP will provide the Contractor with an electronic copy of the WTP baseline. The Contractor shall provide the supporting TFC baseline package to DOE-ORP each year, fully integrated with the WTP contractor and supporting other Hanford contractor baseline packages.

Any changes to the Contractors current baseline shall be documented via a Baseline Change Request. The Contractor shall submit a risk assessment of the RPP Integrated Baseline.

(b) Project Management Execution

The Contractor is responsible to have systems which are managerially and financially in control for its own and other Hanford Site work as required by DOE. In furtherance of this, the Contractor shall:

- (1) Establish and maintain management systems to ensure that the Contract work is managed in an integrated project management system, as required by Section H, Clause H.8 *Project Controls*, to promote integration, enhance customer and stakeholder confidence, provide accurate and timely information for proactive decision-making, and ensure worker and public safety and protection of the environment. Systems and methodologies shall be established to identify, evaluate, and manage risks, and establish priorities based on project life-cycle considerations.
- (2) Obtain, integrate, analyze, report, and maintain appropriate and accurate TFC information to support DOE in the integration and management of the Hanford Site. This information includes, but is not limited to, data critical to effective management of the Hanford Site such as movement of wastes on or off the site, compliance with regulatory action assignments, or utilization of site services. The minimum reporting requirements are identified in Section F.3, *Reporting Requirements*.
- (3) Develop and maintain a management system, which reflects appropriate and accurate information to control, evaluate, and integrate project/mission management. This system shall reflect the following:
  - (i) Management, control, and reporting of technical, schedule, cost, and financial elements of the TFC life-cycle baseline and the supporting project execution plans, as required by Section H, Clause H.23 *Earned Value Management System*, including:
    - (A) Appropriate change control processes, which ensure documentation of all monitored elements of the baseline, are maintained up-to-date. This includes the configuration baseline of all technical systems and structures, and includes revision to the baseline and critical path as appropriate upon approval of changes. At a minimum the change control process shall implement the RPP baseline change thresholds in Section F, Table F-2,
    - (B) Tracking and measuring tools to provide DOE-ORP continual assessment of Contractor performance against the baseline;

- (C) Tools which allow the evaluation of the consequences (technical, cost, and schedule) of new information, alternative activities, and/or new financial scenarios;
  - (D) Estimating procedures based on commercial techniques, such as activity-based cost estimating and benchmarking against industry standards; and
  - (E) Cost accounting practices used for accumulating and reporting costs shall be consistent with those used in estimating costs for work under the Contract.
- (ii) Provide DOE-ORP with integrated financial, schedule, and critical path analysis, and activity tracking data to effectively manage the baseline(s) through automated reporting emphasizing performance measurements, change control, and trending data. This system shall support DOE ability to report direct and indirect costs in a manner satisfactory to DOE.
  - (iii) Maintain flexible information systems compatible with DOE information systems, including reporting, budget, and financial systems, and allow efficient data interchange among site contractors and DOE. This includes compatibility with DOE Integrated Planning, Accountability, and Budgeting System-Information System.
  - (iv) Create the ability to accommodate electronic transfer of data between a diverse set of hardware, software, and communications platforms. Use standard data definitions, time schedules, and rules for the provision of information to the Management Information System (MIS) to ensure accuracy and consistency. All data and information provided to DOE relating to the Contractor or the subcontractors shall be prepared using common and consistent definitions, principles, and methodologies (e.g., Full-Time Equivalent [FTE] employees).
  - (v) Use a centralized system of reporting unusual occurrences, near misses, environmental events, safety events, etc., and ensure that lessons learned from such occurrences are provided to DOE, the Contractor, and subcontractor workforces as defined in Section C.2.(d)(1)(e).
  - (vi) Maintain comprehensive management and technical oversight and corrective action programs, including tracking of issues and lessons-learned program effectiveness.
- (4) Establish an RPP configuration management system based on industry consensus standards, which with other management tools, such as change control, assures a sound technical basis for the TFC life-cycle baselines.
  - (5) Provide to DOE via a computerized file, periodic accounting entries regarding government property acquisitions, dispositions, and monthly depreciation charges. These entries shall provide consistent information and allow reconciliation of the Contractor's detailed property records.

- (6) Participate in the management of interfaces between the Contractor and any other RPP or Hanford Site organization and provide ORP with information and notification on all interface activities. The Contractor shall provide the resources needed to fully participate in the interface management process for the RPP. The Contractor shall also fully participate in the preparation for interface management activities that may occur beyond the period of Contract performance.

Interface Documents will be developed and maintained to define interface agreements among the parties involved with the interfaces. The Contractor shall comply with the interface agreements reached with them and shall utilize the approved change control processes to obtain changes to the interface documents. The Contractor shall recognize the DOE role as "Owner" and as the final decision authority for any interface issues that are not resolved between the parties. Applicable interface document requirements associated with these agreements will also be incorporated into the TFC baseline.

- (7) Participate in the development of interfaces between the Contractor and WTP contractor to: 1) establish the physical and administrative interfaces, 2) develop any delivery requirements and acceptance criteria at the point of transition, 3) provide the necessary Contractor contributions to all Interface Control Documents that control each interface, and 4) provide necessary services and utilities.

The scope of the Contractor's participation and obligations described in this subparagraph (7) shall be set forth in a jointly developed Interface Management Plan (IMP) and Interface Control Documents (ICD) developed pursuant to the IMP. The IMP and ICDs will be referenced in Appendix O and will be used to establish Contractor's baseline performance obligations to ORP.

(c) Manage and Integrate Resources

The Contractor shall manage and integrate its resources for optimal achievement of outcomes set forth in Section C.1 above. In furtherance of this, the Contractor shall:

- (1) Support the annual budget submission process by working with DOE and other prime contractors to develop budget formulation documentation. The Contractor shall prepare documentation for its own work activities. Support to DOE during this process shall include but is not limited to assisting DOE to:
- (i) Develop project budget data.
  - (ii) Prepare budget justification analyses and budget scenario studies.
  - (iii) Provide support to all crosscutting budget formulation documents (i.e., ESH&Q, Information Resources Management, etc.).
  - (iv) Obtain regulator and other stakeholder participation in budget development, including assistance in response to stakeholder and regulator inquiries.
- (2) Provide leadership, project, and personnel management skills necessary to ensure compliance with the RPP goals and the *Hanford Federal Facility Agreement and Consent Order* (also known as the Tri-Party Agreement or TPA), and to motivate the workforce to:
- (i) Achieve quality work performance;

- (ii) Mandate attention to worker and public safety and health, environmental protection, and the tenets of Conduct of Operations; and,
  - (iii) Be fiscally and ethically responsible in the management of government and public resources, including property, equipment, funds, and time.
- (3) Use the existing "People Core" system at the Hanford Site to enhance human resources functions site-wide.
  - (4) Continually "right-size" its own workforce and that of its subcontractors to have the size of workforce equal to that necessary to accomplish the authorized workscope.
  - (5) Resolve employee concerns (including complaints on harassment, intimidation, retaliation, and discrimination) at the appropriate level. The Contractor shall support and provide cooperative membership in an approved "appeals avenue/forum" for resolving significant employee concerns (i.e., environmental, safety, health, and quality). The Contractor shall review and make recommendations to DOE to make the charter/process consistent with this Contract. The continued need for the "appeals avenue/forum" shall be reviewed annually and a recommendation submitted to DOE for discussion.
  - (6) Continually promote diversity in all aspects of the work under this Contract. An updated revision to the Diversity Plan, as set forth in Section J, Appendix G, *Guidance for Preparation of Diversity Plan*, shall be submitted to DOE-ORP for review and approval by February 1, 2001, and will be updated annually, thereafter.
  - (7) Provide an independent internal audit capability to review its activities and those of its subcontractors. An updated revision to the Internal Audit Plan as set forth in Section J, Appendix E, *Guidance for Other Required Plans* shall be submitted to ORP for approval by June 15, 2003, and updated annually, thereafter.
- (d) Environment, Safety, Health and Quality (ESH&Q)
- (1) The Contractor shall establish an Integrated Safety Management System (ISMS), in compliance with the Section I Clauses entitled, *Integration of Environment, Safety and Health into Work Planning and Execution*, and *Conditional Payment of Fee, Profit or Incentives*, that clearly communicates the roles, responsibilities, and authorities of line managers; holds line managers accountable for the performance of work in a manner ensuring protection of workers, the public, and the environment; and ensures quality work and products.

The Contractor shall:

- (i) Establish effective management systems to identify deficiencies and resolve them in a timely manner; ensure that corrective actions are implemented that address the extent of conditions, root causes, and measures to prevent recurrence; and prioritize and track commitments and actions as well as identify and implement lessons learned from other DOE sites, contractors, or commercial activities. The Contractor shall have and maintain an effective Lessons Learned Program to capture lessons learned from both internally and externally identified deficiencies and good practices. The Lessons Learned Program shall be rigorous and comprehensive such that the Contractor can demonstrate actions taken to address significant occurrences from both inside and outside of



the DOE complex. Lessons learned information should be targeted and made available to the personnel in the Contractor's organization actually conducting the type of work involved and most able to benefit from the information.

- (ii) Establish a structured, standards-based approach to planning and control of work including identification, management and implementation of ESH&Q standards and requirements that are appropriate for the work to be performed and for controlling related hazards, while facilitating the effective and efficient delivery of work. The Contractor shall implement the requirements identified in the Section I Clause entitled, *Laws, Regulations and DOE Directives*.
- (iii) Establish an organization that supports effective ESH&Q management by ensuring appropriate levels of staffing and competence.
- (iv) Establish disciplined self-assessment, feedback, continuous improvement processes, and conduct of operations discipline in the performance of all work.
- (v) Implement a program to track and address environmental compliance issues and implement requirements (including but not limited to permitting, environmental reporting, Consent Decrees, Tri-Party Agreement reporting/management, NEPA, pollution prevention, waste minimization), and comply with all aspects of the Section H Clause entitled, *Environmental Responsibility*.
- (vi) Recommend and implement ESH&Q performance measures to monitor the effectiveness of the implementation of ESH&Q programs.
- (vii) The Contractor shall obtain occupational medical services as a mandatory Hanford Site Service for all Contractor and subcontractor employees performing hazardous work that may expose workers to chemical, physical including radiological, biological, and/or similar hazards. The Contractor shall identify required occupational medical services as required in other sections of this Contract. Occupational medical services are a mandatory Hanford Site Service under this Contract and are provided by the Hanford Site Occupational Medical Contractor (HSOMC). The Section I clause entitled Access to and Ownership of Records is implemented as follows with respect to occupational medical records: All occupational medical records generated during the performance of Hanford-related activities will be maintained by the Hanford Site occupational medical services provider and are the property of DOE.

The HSOMC, currently provides occupational Health Services to the Hanford Site. The Contractor shall obtain for itself and require all subcontractors performing work on the Hanford Site to obtain the following services from the HSOMC: occupational medical evaluations including return to work evaluations and work restriction reviews, medical surveillance evaluations, occupational primary care, health care centers/first aid, work conditioning, case management, work site health programs including blood-borne pathogens and immunizations, and behavioral health services including employee assistance programs, and

health information services such as medical records and medical scheduling.

The Contractor shall coordinate with the HSOMC and reach agreement regarding service requirements and delivery, including data gathering and sharing. The agreement should emphasize a comprehensive public health approach as being integral to a well-run health and safety program and address cost and resources effectiveness. This agreement shall be subject to approval and validation by DOE-ORP.

- (viii) Maintain, implement and improve the TFC (Tank Farms, 242-A Evaporator, and 222-S Laboratory) nuclear safety authorization basis in support of safe, effective, and efficient work accomplishment.
  - (ix) In accordance with the ISMS, Authorization Agreements (AAs) will be developed, mutually agreed to, and executed between the Contractor and DOE-ORP. The Contractor will maintain the AAs. The AAs are to serve as a mechanism whereby DOE-ORP, and the Contractor, jointly clarify and agree to the key conditions for conducting work safely, effectively and efficiently for Hazard Category 1 and 2 nuclear facilities. The AAs are to be updated annually, or as required to reflect changing conditions and Contractor responsibilities.
  - (x) Establish annual safety goals with performance indicators, such as worker radiation exposure, lost workdays, restricted work days, etc.
- (2) The safety and health of workers and the public, protection and restoration of the environment and implementation of quality assurance programs are fundamental responsibilities of the Contractor. Accordingly, the Contractor shall:
- (i) Take necessary actions to prevent serious injuries/illnesses and /or fatalities and prevent radiological or chemical exposures to workers and environmental releases in excess of established limits;
  - (ii) Establish clear environmental, safety, health and quality plans and priorities and manage activities in proactive ways, including visible management field presence, that effectively and efficiently protect the environment, public and worker safety and health, and ensure the quality of work and work products;
  - (iii) Carry out all activities in a manner that complies with human health, safety, environmental, and quality regulations; minimizes the generation of wastes, releases or emissions into the atmosphere, and releases to soil and surface or groundwater; and complies with applicable regulatory requirements and DOE directives;
  - (iv) Empower workers through the use of committees, employee involvement and the tenants of the DOE Voluntary Protection Program (VPP);
  - (v) Engender a "Safety Conscious Work Environment" in which safety issues are promptly identified and effectively resolved, and in which employees feel free of recrimination, harassment, intimidation, or other actions that induce peer pressure to not raise safety issues or otherwise create an environment where safety issues are not identified and resolved.

(e) Economic Transition and Outsourcing

The Contractor shall:

- (1) Be responsible for the performance of the work under this Contract in a manner that helps the community establish a stable economic base over the long term. This shall be accomplished through appropriate private sector participation in cleanup, making available for effective private use DOE assets no longer required or under-utilized by the Government, and investment of private resources in the community.
- (2) The Contractor shall:
  - (i) Recommend to DOE-ORP, the use (by the Contractor, subcontractors, or other private entities) of Government-owned assets (equipment, facilities, or land) on a non-interfering basis to promote, assist, or otherwise foster creation of new private sector jobs.
  - (ii) Accomplish changes in the workforce in a way that minimizes social and economic impacts and complies with Section 3161 of Public Law 102-484.

(f) External/Internal Communications

- (1) The Contractor shall participate in the DOE-ORP external/internal communications program to ensure that the full range of stakeholders receive information in a timely, accurate, complete, and professional manner. Contractor external communications actions shall comply with the DOE Openness Initiatives and Public Involvement Policy and will be approved in advance by DOE-ORP.
- (2) The Contractor shall work with DOE to ensure that external/internal communications activities represent a singular and consistent DOE source of information about the DOE-ORP mission and its relationship to the Hanford Site.
- (3) Contractor external/internal communications efforts and/or corporate communications not directly related to the DOE-ORP mission at Hanford, and/or approved by DOE-ORP, are not allowable costs under this Contract.
- (4) The Contractor shall keep the Hanford Site workforce related directly to the work performed by the Contractor and subcontractors under this Contract informed consistent with applicable laws and regulations.
- (5) At DOE-ORP direction, the Contractor shall:
  - (i) Provide timely and consistent support for inter-Governmental liaison activities, including activities with Federal, State, local and Native American Governments.
  - (ii) Provide logistical support for public meetings, employee and community events, and other meetings on an as-needed basis. .
  - (iii) Respond in a timely fashion with information as requested by DOE-ORP in support of *Freedom of Information Act* and/or *Privacy Act* requests.
- (6) External/internal communications activities shall include, but not be limited to:

- (i) Public information
- (ii) Public involvement
- (iii) Emergency communications activities
- (iv) Media relations
- (v) Site tours, including transportation for tours
- (vi) Preparation/maintenance of public information audio/video products and printed materials.

(g) Training

The Contractor shall coordinate training needs through the Hazardous Materials Management and Emergency Response (HAMMER) facility and the Hanford Site-training program, as applicable.

(h) Emergency Preparedness

The Contractor shall provide an emergency response capability for facilities under its control that implements the Hanford Emergency Management Plan (DOE/RL-94-02, Revision 2), as modified. Because of the potential for the Contractor to become the Event Contractor as defined in the Hanford Emergency Management Plan, implementation includes, but is not limited to, maintaining a 24-hour per day, 7 days per week, capability to adequately staff the required Hanford Site Tank Farm areas of responsibility and 222-S Laboratory specific Emergency Response organization positions within 60 minutes of receipt of notification from the Occurrence Notification Center of a Hanford Site emergency.

(i) Environmental Monitoring

The Contractor shall manage its facilities and operable units to assure compliance with environmental requirements and agreements. The Contractor shall work with the Project Hanford Management Contractor (PHMC) or other designated contractors in providing legally and regulatory required air and liquid effluent and near facility environmental monitoring. The Contractor shall collect, compile, and/or integrate air and liquid effluent monitoring data from operations and activities under their control. The Contractor shall compare the monitoring data with regulatory and/or permit standards applicable to their activities and/or operations and provide the data and analyses to the PHMC or other designated contractors for use in preparing the mandatory State and Federal environmental reports for the Hanford Site.

The Pacific Northwest National Laboratory (PNNL) monitors the Hanford environment to protect public safety and Hanford Site ecological and cultural resources. This includes providing real time localized weather information for routine safety operations and emergency response, performing Hanford Site and off-site environmental monitoring, as well as determining radiological exposure to the public and the environment. The Contractor shall provide appropriate environmental data for its facility and operable units to support Hanford Site assessments and preparation of the Hanford Site Environmental Report.

PNNL is responsible for Hanford Site groundwater monitoring. The Contractor will be knowledgeable of actions PNNL completes to develop monitoring plans for Contractor

facilities and operable units. The Contractor shall maintain regulatory oversight capability to ensure that compliance for their facility and operable units is maintained, for the groundwater-monitoring program by PNNL.

The Contractor will perform vadose zone characterization around the Tank Farms in accordance with TPA and other regulatory requirements. This effort will be integrated with the PNNL groundwater monitoring effort, DOE-ORP *Resource Conservation and Recovery Act of 1976* (RCRA) Facility Investigation/Corrective Measures Studies, and the PHMC or other designated contractors.

### C.3 RIVER PROTECTION PROJECT

#### (a) Technical Scope of the Contract

The River Protection Project (RPP) scope of this Contract encompasses activities identified in the TFC RPP baseline (hereafter referred to as the "Baseline") as amended by approved Baseline Change Requests (BCRs) needed to: (1) safely manage tank wastes, and operate tank farm systems within an approved authorization basis for such operations applying appropriate life cycle asset management; (2) retrieve waste from single shell tanks consistent with the TPA and other applicable Federal or State laws, regulations; and retrieve and dispose of waste from double shell tanks, including completing upgrades of waste retrieval and transfer systems; (3) develop potential supplemental treatment technology(ies), such as Bulk Vitrification; (4) construct, operate, and maintain facilities necessary for waste treatment support and treated waste storage/disposal ; (5) stabilize facilities and prepare tank closure plans for SSTs as contemplated in the TPA ; (6) execute supporting project management responsibilities including strategic analysis, baseline management, contracting functions, compliance, finance and administration, and (7) perform landlord functions for the 222-S Analytical Laboratory, as set forth in the following sections:

#### (1) Safe Tank Waste Storage

##### (i) General Description

Contractor shall provide an adequate, comprehensive, and reliable safety basis for the management and storage of waste managed by Contractor under the scope of this Contract. This will be accomplished by developing, operating to and maintaining an integrated authorization basis (AB), and by resolving outstanding safety issues and unreviewed safety questions to ensure safe storage and retrieval of waste. Proposals to modify the AB shall be made as appropriate to provide a cost effective AB for safe and reliable waste storage; retrieval; feed delivery; and immobilized product storage, and disposal. Waste sampling and characterization will be performed as required to assure safe storage conditions and to maintain the integrity of the double-shell tank (DST) system. Waste monitoring, characterization, treatment, disposal and reporting will be performed as required to meet regulatory requirements. Wastes meeting the waste acceptance criteria will be received into the DST system from Hanford Site facilities as required to support the Hanford Site cleanup mission.

The Contractor shall also adequately perform operations and maintenance; effectively manage, plan, and utilize resources; and implement an approved life-cycle asset management system.

The Contractor shall store tank wastes in compliance with storage requirements and without any significant non-compliance due to Contractor action or lack of planning. The integrity of the DSTs shall be maintained to support the extended waste treatment mission. Additional performance expectations are identified in the Baseline and in the Section J, Appendix D, *Performance Based Incentives*.

(ii) Tank Farm Upgrades

The Contractor shall complete upgrades to the DST system to support safe and reliable tank waste operations, such as, storage, retrieval, staging, and delivery activities. This includes performing waste transfer system upgrades necessary to provide a compliant system to support waste feed delivery to the WTP and will include completion of additional waste system upgrades contained in the Baseline. The DST system shall support implementation of the DST system RCRA permit.

The Contractor shall comply with all regulations; and improve infrastructure reliability, operability and maintainability (including transfer systems, instrumentation and control systems, electrical distribution, and ventilation systems).

The Contractor shall complete the Tank Farm upgrades necessary to implement a RCRA permit for the DST system, as identified in the approved Baseline, and Section J, Appendix D, *Performance Based Incentives*.

(iii) Component Isolation and Monitoring

The Contractor shall complete the isolation and monitoring of DST components that are not part of the DST system identified in the RCRA permit application or issued permit. Entry points into stabilized SSTs shall be capped or plugged as required to ensure that waste and water will not re-enter the tank.

The Contractor shall complete the component isolation and monitoring; necessary to implement a RCRA permit for the DST system, as identified in the approved baseline, and Section J, Appendix D, *Performance Based Incentives*.

(iv) 242-A Evaporator

The Contractor shall operate and maintain the 242-A Evaporator structures, operating systems and equipment, and monitoring systems in accordance with the 242-A current Authorization Basis and applicable regulatory requirements. The Contractor shall maintain security, radiological control, and access control to ensure personnel safety.

The Contractor shall operate, maintain, and upgrade the 242-A evaporator to maintain readiness to operate and to support the extended waste treatment mission. This shall include evaporator campaigns upgrades as identified in the approved Baseline, and Section J, Appendix D, *Performance Based Incentives*.

(v) Manage Tank Farm Environmental Compliance

The Contractor shall manage and complete environmental compliance activities that support safe tank waste storage. This includes completing required remedial field investigations, corrective measure studies, and Vadose Zone sampling and characterization activities.

The Contractor shall achieve the expectations identified in the approved Baseline, and Section J, Appendix D, *Performance Based Incentives*.

(2) Waste Retrieval

(i) General Description

The Contractor shall in an environmentally sound, safe, secure, and cost-effective manner:

- Retrieve wastes from SSTs, and designated miscellaneous underground storage tanks (MUSTs); and
- Prepare to provide waste from the DST system (feed delivery) to the WTP contractor for processing.

The waste retrieval and feed delivery workscope shall be projectized to assure required deliverables are met. The Contractor shall establish the functions and requirements and establish the schedule to install the equipment needed to reliably deliver the proper waste feed on schedule to the WTP contractor for waste treatment.

The *Tank Waste Remediation System (TWRS) Environmental Impact Statement Record of Decision* calls for retrieval of wastes from all 149 SSTs, 28 DSTs, and MUSTs. Until all waste is retrieved, the DSTs must function to store and prepare waste retrieved from SSTs and MUSTs for waste treatment facilities while optimizing utilization of DST space.

(ii) Single Shell Tank Retrieval

The Contractor shall develop methods, systems and requirements for retrieving wastes from the Single Shell Tanks to the extent needed to close them in accordance with RCRA and the *Atomic Energy Act of 1954 (AEA)*. SST retrieval methods and requirements shall support SST retrieval demonstrations.

Single shell tank retrieval objectives include demonstrating technologies to retrieve salt cake, hard heel, and other wastes from SSTs; determining technology limitations, retrieval efficiencies, safety and environmental concerns, and cost impacts for SST retrieval systems; evaluating alternative retrieval technologies for SSTs that have leaked or may leak; and supporting the transition and closure of SSTs and tank farms. The Contractor shall complete the SST retrieval progress identified in the approved baseline, and in the Section J, Appendix D, *Performance Based Incentives*.

(iii) Double Shell Tank Retrieval and Waste Feed Delivery

The Contractor shall develop detailed plans to design, construct, install and test systems for retrieving wastes from the DSTs to meet the waste feed requirements of the WTP. The Contractor will also maintain these systems to be operational when required to deliver waste. This will require providing DST waste retrieval systems that can supply waste feed in composition sufficient to meet waste feed delivery in quantities and rates sufficient to support the WTP processing capacities. This shall also include providing tank characterization and waste samples to support WTP planning and testing requirements. Also included is support for the development of the RPP flowsheet and planning inclusive of all major process steps and/or systems including but not limited to: SSTs, DSTs, pre-treatment, immobilization, supplemental treatment, immobilized product storage and disposal, as identified in the Baseline. Development of the RPP flowsheet includes improving the quality of input data, developing flowsheet assumptions, identifying inputs and outputs at each step, and developing constraints/requirements at each step.

The Contractor shall perform DST Retrieval and Waste feed Delivery planning and preparation for the initiation of waste treatment activities either through WTP processing capacities or supplemental treatment processing capacities.

(3) Supplemental Treatment

(i) General Description

The Contractor shall develop potential supplemental treatment technologies including the bulk vitrification system. A Demonstration Bulk Vitrification System (DBVS) project shall demonstrate if the technology has justifiable potential for full-scale implementation to treat tank wastes. The demonstration will yield results that provide insights and direction to the development of full-scale system design and operation.

The DBVS facility shall be used to evaluate: the ability to produce immobilized LAW (ILAW) to supplement the plan capacity in the WTP currently under construction; the compatibility of the technology with actual tank waste; the safety; efficiency, and potential cost-effectiveness of the bulk vitrification process; and the feasibility for full-scale application. This project shall be designed to investigate requirements for feed material handling, equipment operation, residual material handling, production and control of secondary wastes, and potential environmental impacts associated with the process.

The DBVS objectives are identified in the approved Baseline and Section J, Appendix D, *Performance Based Incentives*.



(4) Waste Treatment Support and Treated Waste Storage/Disposal

(i) General Description

The Contractor shall design, procure, construct and operate infrastructure sufficient to enable the WTP facilities to be constructed and operated, and consistent with the ICDs for infrastructure activities. The infrastructure shall support treatment of tank wastes either through the WTP alone or in conjunction with a supplemental technology.

The Contractor shall provide safe storage and final near-surface disposal on the Hanford Site for ILAW, and failed or decommissioned melters from the WTP.

The ILAW disposal facilities will receive immobilized low activity tank waste. The ILAW waste packages will be placed in near-surface disposal facilities. The near-surface disposal systems and waste packages shall meet regulatory requirements for transportation and near-surface disposal of low-level waste.

The Contractor shall also provide for the safe storage for IHLW. The IHLW storage facility will receive IHLW, where the product will be stored until shipped to a geologic repository. Storage of the product in a storage facility will consolidate the high level waste in one area and provide safe, environmentally sound storage. In addition HLW storage will provide load-out capability for shipment of IHLW canisters to a geologic repository.

(5) Close Facilities

(i) General Description

The Contractor shall undertake facilities stabilization in preparation for the transition of such facilities for deactivation and decommissioning. The Contractor shall develop closure plans in conformance with NEPA analysis developed to support tank closure and applicable RCRA requirements. The plans shall provide closure definition, closure demonstrations, system design, authorization basis, work plans, approvals and other information necessary for closing the SSTs in accordance with the closure requirements of DOE Manual 435.1 and TPA Milestones.

The Contractor shall support NEPA analysis supporting RPP, and perform planning and preparation for the closure of all Tank Farms facilities, sites, or other areas of concern.

(6) Manage Projects

(i) General Description

The Contractor shall establish and maintain necessary systems and organizational components necessary to execute the technical work scope set forth in this Section of the Contract. This includes, but is not limited to, organizational components responsible for strategic analysis and integration; project management; business management; contracts; compliance; and finance and administration, consistent with the WBS descriptions in the DOE Mission Analysis Report.

The Contractor shall implement DOE Order 413.3, *Program and Project Management for the Acquisition of Capital Assets* for the RPP. This shall include the requirements of Section C.2, *Management Workslope* and Section C.3, *River Protection Project*

(7) Analytical Laboratory Services

(i) General Description

The Contractor shall perform landlord responsibilities for the 222-S Laboratory facilities and equipment, to include facility operations, maintenance, and analytical process development in support of the RPP mission. The Contractor shall coordinate and provide services to the Analytical Services Production Contractor (ASPC) in support of the analytical services production functions in the 222-S Laboratory complex.

(ii) Facilities and Instruments

The Contractor will operate facility systems and maintain equipment to support the analytical functions within the 222-S Laboratory and associated facilities. The Contractor shall ensure that operations remain within the bounds of the approved AB. The Contractor shall provide maintenance, routine calibrations, repairs and engineering functions for the facilities and instrumentation. The analytical instrumentation and support equipment shall assure capacity, capability and reliability are available to support the clean up schedules. The facility and instrumentation availability is subject to routine downtime for maintenance, repairs and upgrades; scheduled downtime will be closely coordinated with the ASPC to maximize efficiency; unscheduled outages of facilities or equipment will be prioritized to minimize the impact to the ASPC.

(iii) Established programs and services

The Contractor shall evaluate, develop and maintain AB documentation, environmental permitting and other compliance documentation and activities for the 222-S Laboratory complex and analytical activities in support of the ASPC. The support shall include but is not limited to:

- Radiological control program and services as submitted through an inter-contractor work order with the 222-S Laboratory contractor,
- Nuclear safety,
- Safety management programs (in the Documented Safety Analysis),

- Security program and personnel,
- Emergency response program,
- Fire protection program,
- Waste management program and services,
- Regulatory issues resolution and actions,
- Coordination of laboratory analyses and data interpretation for the RPP, and
- Engineering.

(iv) Laboratory Information Management System (LIMS)

The Contractor shall provide to the ASPC, the comprehensive LIMS. These systems have the capability to upload a large proportion of the analytical data from the instruments to the analytical reporting systems after approval by the responsible chemists.

(v) Analytical Process Development

The Contractor shall perform analytical process development work in the 222-S Laboratory to support the RPP. The Contractor shall maintain a nuclear material safeguards and security program and maintain special nuclear material accountability to support process development work. Analytical process development work shall be coordinated with the ASPC and newly developed analytical process shall be transferred to the analytical services production function provided by the ASPC as soon as practicable.

(b) Required Investment by DOE – (Government Furnished Services/Items)

DOE and the Contractor both recognize that the successful execution of the Scope of Work of this Contract will require cooperative efforts by both parties to minimize non-value added transactions. Within this recognition, there are certain commitments and actions required on the part of the Government to achieve the desired performance within the level funding assumptions underlying the Baseline. The description of Government Furnished Services/Items is set forth in the Performance Based Incentives (PBIs) included in Section J, Appendix D.

During the term of the Contract, DOE and the Contractor will work to fulfill the objective, and meet the commitment and deliverables identified therein. During the performance of the Contract, the parties agree that efficiencies and performance improvements will be required to reduce the actual cost and/or improve the schedule for the work.

The Contractor and the Government will establish a Partnering Agreement. The agreement will establish a common vision with supporting goals and missions, that will promote the principles of teamwork, mutual respect, openness, honesty, trust, professionalism and build a better understanding of one another's position. The agreement will also include joint commitments to:

- Maintain high safety performance,
- Eliminate barriers to a faster, more cost effective program,
- Create an organizational culture able to accommodate change,
- Resolve conflicts through a coordinated work effort to avoid adversarial relations, and
- Reinforce the partnered relationship with honest feedback and continual improvement.

#### **C.4 SUPPORT FOR WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT CONTRACTOR**

The Contractor shall be responsible for providing support to the Hanford Waste Treatment and Immobilization Plant (WTP) Project. Part of the RPP mission is to separate the Hanford Site tank waste into LAW and HLW fractions and to immobilize and dispose of them in an environmentally sound, safe, and cost-effective manner.

The Contractor shall be responsible for coordinating the WTP contractor's requirements for infrastructure, utility, and service support with the PHMC (or other designated contractors), who shall provide such support as specified in RPP Interface Control Documents. Required services include waste sampling and characterization.

#### **C.5 CROSS-CUTTING SERVICES**

The Contractor shall obtain samples from waste tanks for the WTP, and the PHMC (or other designated contractors) and its subcontractors at the Hanford Site. The sampling techniques may include grab sampling for liquids, core sampling for liquids and solids, and vapor sampling. The Contractor shall receive liquid radioactive wastes that meet Contractor tank waste acceptance criteria from other site facilities for storage in the DST systems and eventual immobilization and disposal. Additional interface requirements specific to WTP are included in Section J, Appendix O, Interface Documents Specific to WTP interfaces.

The Contractor shall provide support for groundwater/vadose zone integration activities consistent with DOE-ORP approved interface management agreements.

The Contractor shall provide site-wide ventilation and balance services.

The Contractor will operate facilities and maintain the 222-S Complex.

#### **C.6 INTERACTIONS WITH OTHER PRIME CONTRACTORS**

The Contractor may, from time to time, provide services to and receive services from other Hanford Site DOE prime contractors by memoranda of agreement or other subcontract arrangements. The Contractor is encouraged to utilize the specified expertise of the PHMC (or other designated contractors), PNNL, the HSOMC, the River Corridor Contractor, and the Energy Savings Performance Contractor (ESPC) to accomplish the TFC mission. In the event the Contractor determines that services may be obtained from more cost effective sources of supply, the Contractor shall notify DOE of its proposal to utilize other sources. The Contractors shall work with each other in identifying yearly requirements for services. DOE approval will be obtained prior to changing service providers.

#### **C.7 SPONSORSHIP AND ADMINISTRATION OF ROCKY FLATS PENSION AND POST RETIREMENT BENEFITS (PRB)**

Based upon the desire of Kaiser-Hill LLC, and CH2M HILL Hanford Group, Inc. (Contractor) to transfer sponsorship, management and administration of certain pension and benefit plans from Kaiser Hill LLC to the Contractor, the Department of Energy authorizes the Contractor to support the transfer of, and accept sponsorship and responsibility for, the management and administration of the Rocky Flats Pension and PRB Plans described in subsections 1 through 4 of Section C.7. Upon transfer of sponsorship, management and administration responsibilities, Contractor shall manage and administer the Plans in

accordance with all applicable laws, regulations, DOE Directives and in accordance with the provisions and requirements of this Contract, including, but not limited to applicable requirements of Section J, Appendix B of this Contract. The Plans shall be managed separately from the Hanford Site Multi-Employer Pension Plan (MEPP) and the Hanford Employee Welfare Trust (HEWT) and in a manner so as to preserve the Plans' separate and distinct identities.

The benefits to be transferred are:

- (a) Rocky Flats Employee Welfare Trust. Benefits covered under this multiple employer welfare agreement include:
  - (i) Medical (both fully insured and self-funded) plans for:
    - Salaried retirees and their eligible dependents;
    - United Steelworkers of America (USWA) hourly retirees and their eligible dependents; and
    - Salaried participants on Long Term Disability.
  - (ii) Basic and supplemental life insurance for:
    - Salaried retirees;
    - United Steelworkers of America (USWA) hourly retirees;
    - Security Protection Officers (SPO) hourly retirees; and
    - Salaried participants on long-term disability.
  - (iii) Vision coverage for SPO retirees only.
  - (iv) COBRA medical coverage for terminated salaried USWA and SPO employees and eligible dependents.
  - (v) COBRA dental coverage for:
    - Retired salaried, USWA and SPO employees and eligible dependents; and
    - Terminated salaried, USWA and SPO employees and eligible dependents.
  - (vi) Displaced workers medical coverage for laid-off salaried, USWA and SPO employees not eligible to retire. Coverage includes eligible dependents.
- (b) Rocky Flats Multiple Employer Pension Plan. This master plan covers two separate defined benefit plans for salaried retirees and SWA retirees.
- (c) Kaiser-Hill Retirement Plan for Hourly Plant Protection Employees. This defined benefit plan covers SPO retirees.

#### **C.8 ACTIONS REQUIRED REGARDING ROCKY FLATS PENSION AND PRB PLANS AT CONTRACT TERMINATION OR EXPIRATION**

Upon expiration or termination of this Contract, the Contracting Officer shall unilaterally direct the Contractor to take all necessary steps to facilitate the transfer of the sponsorship, management and administration of the Rocky Flats Pension and PRB Plans to such follow-on contractor or contractors who may be responsible for the continuation of all or a portion of the work carried out under this Contract. In

the event the Contractor is directed by the Contracting Officer to transfer these functions and responsibilities to another entity, the Contractor shall continue to be responsible for the sponsorship, management and administration of these Plans until all legal requirements related to transfer of these obligations are completed.

**C.9 ROCKY FLATS PENSION AND PRB PLANS REPORTING DELIVERABLES**

- (a) The Contractor shall provide the following Rocky Flats Pension and PRB Plans reporting deliverables to the DOE Office of River Protection (ORP) Contracting Officer:2

Item <sup>3</sup>	Frequency	Copies	Recipient
Management Plan	Annual	3	CO
Status Report	Quarterly	3	CO
Cost Plan	Annual	3	CO
Cost Management Report	Quarterly	3	CO
ERISA Filings	Annual	3	CO
Actuarial Valuation Reports	Annual	3	CO
Pension Trust Statement	Quarterly	3	CO
Summary Plan Description	Annual	3	CO
Summary of Material Modification	Annual	3	LM/HQCO
FAS 87/106 Disclosure Data Call	Annual	3	CFOCO

2 Other reports and requirements are referenced in Section J, Appendix B

3 The **Management Plan** referenced is the Contract Management Plan. A sample outline is found in the Uniform Reporting System for Contractors, but, in general, is the Contractor’s plan for management of the Contract. The Management Plan shall address any additional work scope pertaining to the management, administration, and sponsorship of the Rocky Flats Pension and **PRB Plans** through this Contract modification.

**Status Report** is a concise narrative assessment providing the status of work. The Status Report is used to monitor standing and to provide recognition of potential problem areas. An example of the status report is also found in the Uniform Reporting System for Contractors. Typical items covered include, but are not limited to, scope changes, changes in approach, discussion of individual tasks, achievements, and open items.

**Cost Plan.** The Cost Plan establishes the intended rate of accrued costs for the life of the contact for this particular scope of work. It shows a time-phased baseline plan, which allows for the measurement of cost performance and provides basic information for updating and forecasting budget requirements. An example Plan is found in the Uniform Reporting System for Contractors.

**Cost Management Report.** The Cost Management Report is a periodic (for this purpose, quarterly) account of the cost status of the work measured against the Cost Plan. It is used: (1) to monitor and control the performance; (2) to report planned and accrued costs for the current reporting interval, as well as cumulative costs to date; (3) to forecast accrued expenditures for subsequent reporting periods, the remainder of the fiscal year, and the life of the effort; (4) to report variances between the overall contract level and the associated Cost Plan and, (5) to project short, intermediate, and long-range planning. This report is used by DOE as backup documentation to support reimbursement authorization of the Contractor’s invoices.

The DOE Order is 1332.1A, *Uniform Reporting System*, which is an old order but an archive copy can be found on the DOE Directives home page, which also contains examples of the plans and reports.

(b) The address for the DOE-ORP Contracting Officer is:

ATTN: Cloette B Reid  
Contracting Officer  
U.S. Department of Energy  
P.O. Box 450  
Richland, WA 99352

(c) Point of Contact for CH2M HILL Hanford Group, Inc. is:

Dan Cartmell  
Vice President and CFO  
CH2M HILL Hanford Group, Inc.  
P.O. Box 1500  
Richland, WA 99352