

PART I – THE SCHEDULE

SECTION C – STATEMENT OF WORK

TABLE OF CONTENTS

C.1	PURPOSE, OVERVIEW, END-STATES, AND ORGANIZATION	1
	C.1.1 PURPOSE AND OVERVIEW	1
	C.1.2 END-STATES	1
	C.1.3 ORGANIZATION OF THE STATEMENT OF WORK	1
C.2	DESCRIPTION OF PERFORMANCE REQUIREMENTS	3
	C.2.1 ACTIVITY 1: TRANSITION	6
	C.2.2 ACTIVITY 2: REMEDIATION DESIGN	7
	C.2.3 ACTIVITY 3: REGULATORY AND SUPPORTING DOCUMENTATION	8
	C.2.4 ACTIVITY 4: DEACTIVATE, DECONTAMINATE, DECOMMISSION, AND DEMOLISH (D4) FACILITIES	10
	C.2.5 ACTIVITY 5: REACTOR INTERIM SAFE STORAGE	12
	C.2.6 ACTIVITY 6: FIELD REMEDIATION	13
	C.2.7 ACTIVITY 7: WASTE OPERATIONS	13
	C.2.8 ACTIVITY 8: OPERATE AND CLOSE UTILITY SYSTEMS	15
	C.2.9 ACTIVITY 9: SURVEILLANCE AND MAINTENANCE	17
	C.2.10 ACTIVITY 10: MISCELLANEOUS RESTORATION	17
	C.2.11 ACTIVITY 11: CLOSURE AND LONG-TERM STEWARDSHIP	18
C.3	ENVIRONMENT, SAFETY, QUALITY, AND HEALTH	19
	C.3.1 INTEGRATED SAFETY MANAGEMENT SYSTEM (ISMS)	19
	C.3.2 ENVIRONMENT, SAFETY, QUALITY, AND HEALTH (ESQH) PROGRAM	19
	C.3.3 REPORTING	20
	C.3.4 ACCIDENT INVESTIGATION	21
	C.3.5 INTERACTIONS WITH THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD	21
C.4	GOVERNMENT-FURNISHED SERVICES AND INFORMATION (GFS/I)	21
C.5	PROJECT MANAGEMENT	22
	C.5.1 PROJECT INTEGRATION AND CONTROL	22
	C.5.2 PROJECT SCOPE, SCHEDULE, AND COST BASELINE	23
	C.5.3 PROJECT BASELINE CHANGE CONTROL	23
	C.5.4 PROJECT PERFORMANCE INFORMATION AND MEASUREMENT	24
C.6	RISK MANAGEMENT	25
C.7	SAFEGUARDS AND SECURITY	25
	C.7.1 PHYSICAL SECURITY	25
	C.7.2 MATERIALS ACCOUNTABILITY	25
	C.7.3 INFORMATION PROTECTION	26
	C.7.4 COORDINATION WITH HANFORD SITE SAFEGUARD AND SECURITY ACTIVITIES ..	26
	C.7.5 EMERGENCY PREPAREDNESS	26
C.8	SUMMARY OF CONTRACT DELIVERABLES	27
C.9	LIST OF EXISTING REGULATORY AND SUPPORTING DOCUMENTATION	30

SECTION C

STATEMENT OF WORK

C.1 PURPOSE, OVERVIEW, END-STATES, AND ORGANIZATION

C.1.1 PURPOSE AND OVERVIEW

The purpose of this Contract is to close the Hanford Site River Corridor (RC), approximately 210 square miles of the Hanford Site along the Columbia River (illustrated in Figure C.1, *Hanford Site River Corridor*). This Contract applies performance-based contracting approaches; expects the Contractor to innovate and implement techniques that emphasize safe, efficient, and measurable results; and minimizes the description of how to accomplish the scope of work. The Contractor has the responsibility for total performance under the Contract, including determining the specific methods and graded approaches for accomplishing all work to be performed.

C.1.2 END-STATES

The U.S. Department of Energy (DOE) has defined RC closure as completion of all activities required to: deactivate, decontaminate, decommission, and demolish excess facilities; place former production reactors in an interim safe and stable condition; remediate waste sites and burial grounds; meet regulatory requirements; and transition to long-term stewardship.

To achieve this end-state safely and efficiently, the Contractor shall establish defensible technical approaches, develop risk-based end-states to protect human health and the environment, implement accelerated risk reduction techniques, and implement a regulatory framework to comply with all applicable requirements.

The current regulatory framework to achieve Hanford Site remediation is established in the Hanford Federal Facility Agreement and Consent Order, commonly known as the *Tri-Party Agreement* (TPA), entered into by DOE, the U.S. Environmental Protection Agency Region 10 (EPA), and the Washington State Department of Ecology (WDOE).

C.1.3 ORGANIZATION OF THE STATEMENT OF WORK

This *Statement of Work* is divided into nine sections, with this *Section C.1* containing the purpose, overview, end-states, and organization; Section C.2, *Description of Performance Requirements*; Section C.3, *Environment, Safety, Quality, and Health*; Section C.4, *Government-Furnished Services and Information*; Section C.5, *Project Management*; Section C.6, *Risk Management*; Section C.7, *Safeguards and Security*; Section C.8, *Summary of Contract Deliverables*; and Section C.9, *List of Existing Regulatory and Supporting Documentation*.

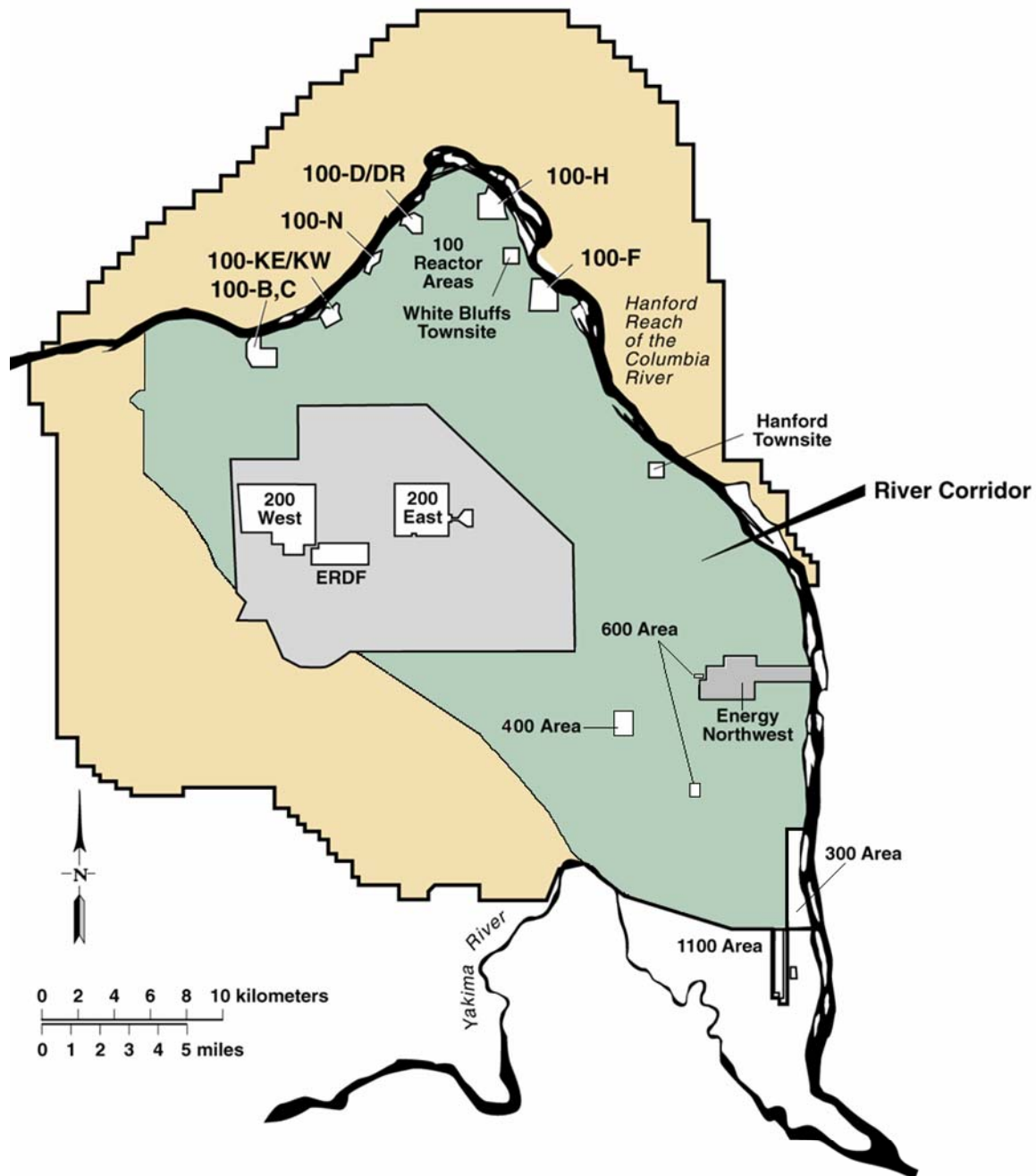


Figure C.1. Hanford Site River Corridor

Figure C.1 is for illustration purposes only; the Contractor shall rely upon the specific requirements contained within this *Statement of Work*

C.2 DESCRIPTION OF PERFORMANCE REQUIREMENTS

Except for the services and information identified as Government-Furnished Services and Information (GFS/I), the Contractor shall provide all personnel, facilities, equipment, materials, services, and supplies to close the RC.

The Contractor shall perform eleven major activities to close the RC:

Activity 1:	Transition
Activity 2:	Remediation Design
Activity 3:	Regulatory and Supporting Documentation
Activity 4:	Deactivate, Decontaminate, Decommission, and Demolish (D4) Facilities
Activity 5:	Reactor Interim Safe Storage
Activity 6:	Field Remediation
Activity 7:	Waste Operations
Activity 8:	Operate and Close Utility Systems
Activity 9:	Surveillance and Maintenance
Activity 10:	Miscellaneous Restoration
Activity 11:	Final Closure and Stewardship

The RC is divided into four major geographic areas, with one supporting geographic area:

- 100 Area, the location of nine former production reactors, associated support facilities, and the waste sites resulting from the disposal of solid and liquid wastes;
- 300 Area, the location of research, development, and fuel fabrication facilities, and the waste sites resulting from the disposal of solid and liquid wastes;
- 400 Area, the location of a small number of facilities and waste sites located outside the Fast Flux Test Facility reactor area;
- 600 Area, the location of two major burial grounds (618-10 and -11) on mostly vacant lands; and
- Waste Operations are supported in the 200 Area at the Hanford Site.

Consistent with a performance-based approach, this *Section* is structured to provide performance requirements and a linkage to individual requirements documents referenced in this *Statement of Work*:

- Table C.1, *River Corridor Work Summary*, provides a one-page summary of the work to be performed under this Contract and an index to the individual subsections; the numbers contained in Table C.1 provide the number of total remedial actions and field work sites across the RC;
- Table C.2, *River Corridor Contract Line Item Summary*, provides a summary on how each of the eleven major activities described within this *Section* are allocated to the three Contract Line Item Numbers (CLIN) referenced in the Section B clause entitled *Type of Contract – Items Being Acquired*;
- Each subsection within this *Section* provides a statement of scope and completion criteria, entrance condition, constraint(s), requirement(s), and GFS/I for the eleven major activities, with individual requirements for the 100, 300, 400, and 600 Areas; and

- All remedial actions and field work sites under this Contract are listed in Section J, Attachment J-1, *Table of River Corridor Closure Contract Workslope*; Attachment J-1 provides information on the incumbent performing contractor, status, and the available regulatory and supporting documentation for each remedial action and field work site.

Table C.1: River Corridor Work Summary

Activity	100 Area							300 Area	400 Area	600 Area	Totals
	B/C Area	D Area	F Area	H Area	K Area	N Area	Remaining Sites				
1: Transition	Refer to Section C.2.1								N/A	N/A	
2: Remediation Design	Refer to Section C.2.2										
3: Regulatory Documentation	Refer to Section C.2.3										
4: D4 Facilities	Refer to Section C.2.4										
	5	16	1	2	116	113	1	220	33	0	507
5: Reactor Interim Safe Storage	Refer to Section C.2.5										
	1	0	0	1	2	1	N/A	N/A	N/A	N/A	5
6: Field Remediation	Refer to Section C.2.6										
Liquid Waste Sites	4	6	1	4	8	0	0	0	0	0	23
Waste Sites	10	12	8	6	39	77	10	107	3	0	272
Burial Grounds	3	16	8	5	2	0	0	6	0	2	42
Confirmatory Sampling Sites	6	27	23	18	49	11	5	10	0	0	149
7: Waste Operations	Refer to Section C.2.7										
8: Operate and Close Utility Systems	Refer to Section C.2.8										
9: Surveillance and Maintenance	Refer to Section C.2.9										
10: Miscellaneous Restoration	Refer to Section C.2.10										
11: Final Closure and Stewardship	Refer to Section C.2.11										
Totals	29	77	41	36	216	202	16	343	36	2	998

Table C.2: River Corridor Contract Line Item Summary

Activity	CLIN 1	CLIN 2	CLIN 3
	100 Area, Selected 300 Area, and 400 Area Contract Scope	Remaining 300 Area Contract Scope	600 Area Contract Scope
1: Transition	Authorized at Contract award (and included as part of CLIN 1)		
2: Remediation Design	Authorized at Contract award (and included as part of CLIN 1)		
3: Regulatory Documentation	Authorized at Contract award (and included as part of CLIN 1)		
4: D4 Facilities	Authorized at Contract award	Upon DOE Authorization of CLIN 2	N/A
	Excess 300 Area facilities	14 300 Area facilities shown in Table C.3, <i>300 Area Facilities Occupied by PNNL</i>	
5: Reactor Interim Safe Storage	Authorized at Contract award	N/A	N/A
6: Field Remediation	Authorized at Contract award	Upon DOE Authorization of CLIN 2	Upon DOE Authorization of CLIN 3
	Field Remediation linked to Excess 300 Area facilities	Field Remediation linked to 14 300 Area facilities shown in Table C.3	
7: Waste Operations	Authorized at Contract award	Upon DOE Authorization of CLIN 2	Upon DOE Authorization of CLIN 3
8: Operate and Close Utility Systems	Authorized at Contract award (and included as part of CLIN 1)		
9: Surveillance and Maintenance	Authorized at Contract award (and included as part of CLIN 1)		
10: Miscellaneous Restoration	Authorized at Contract award	Upon DOE Authorization of CLIN 2	Upon DOE Authorization of CLIN 3
11: Final Closure and Stewardship	Authorized at Contract award	Upon DOE Authorization of CLIN 2	Upon DOE Authorization of CLIN 3

Authorized at Contract award is defined as Contract Scope that is authorized to be performed at Contract award. *Upon DOE Authorization of CLIN 2 or 3* is defined as Contract Scope that is not authorized to be performed until DOE authorizes the work under the Section B Clause entitled, *DOE Authorization of CLIN 2 and CLIN 3*.

C.2.1 ACTIVITY 1: TRANSITION

Scope and Completion Criteria:

The Contractor shall: transition all ongoing RC closure workscope; transition any subcontract work that the Contractor elects to continue under an existing subcontract with the Project Hanford Management Contract (PHMC) and the Environmental Restoration Contract (ERC); complete workforce transition in accordance with the requirements of Section H, *Special Contract Requirements*; and deliver a completed *Transition Agreement*.

Entrance Condition:

The starting point of the work under this Contract is the projected status of work as of start of transition. At the time of Contract award, work will be ongoing and performed under the PHMC and ERC. The projected status and existing contractor assignment of ongoing work by contract is shown in Section J, Attachment J-1, *Table of River Corridor Closure Contract Workscope*. Existing major subcontracts are shown in Section J, Attachment J-10, *Existing Subcontracts*.

Constraint(s): none

Requirement(s):

The Contractor shall submit a *Transition Plan* for DOE approval (Deliverable C.2.1.1) that provides a description of transition activities, involved organizations, and transition schedule. The *Transition Plan* shall include a draft *Transition Agreement* for transition activities to be completed immediately following Contract award, and the approach for transition activities for facilities with a delayed release to the Contractor. The Contractor shall coordinate directly with the PHMC, ERC, PNNL, Johnson Controls, Inc. (JCI), and DOE to finalize the *Transition Agreement* and complete transition of all ongoing work. The Contractor shall develop the inter-contractor ordering and financial agreements that are necessary to support transition and Contract performance, and is responsible for the costs incurred under these agreements.

During the transition period, the Contractor shall identify any material differences in the projected status shown in Section J, Attachment J-1, *Table of River Corridor Closure Contract Workscope*, and actual project status. The Contractor shall present a statement of all material differences as part of the *Transition Agreement*.

The Contractor shall submit a final *Transition Agreement* (Deliverable C.2.1.2) that includes the signatures of all contractor transition parties (PHMC, ERC, PNNL, JCI, and the Contractor).

The Contractor shall conduct a self-assessment of transition completion, support DOE in-process verification of Contract transition, and be accountable for all work performed under this Contract at the end of the transition period.

Government-Furnished Services and Information:

- DOE will coordinate with PHMC, ERC, PNNL, and Johnson Controls, Inc. (JCI) to provide Contractor access to information required to support transition of work;
- DOE will require PHMC and ERC contractors to assign existing subcontracts upon Contractor request;
- DOE will conduct in-process verification of Contract transition; and

- DOE will sign the *Transition Agreement* as the last party to sign.

C.2.2 ACTIVITY 2: REMEDIATION DESIGN

Scope and Completion Criteria:

The Contractor shall complete all required remediation design required for the RC closure.

Entrance Condition:

The starting status of all current Remediation Design is shown in Section J, Attachment J-1, *Table of River Corridor Closure Contract Workslope*.

Constraint(s): none

Requirement(s):

The Contractor shall act as the design authority, including developing design solutions, preparing all design media and documentation, maintaining the design bases, and performing design reviews.

The Contractor shall complete all required Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action Work Plans (RAWP).

The Contractor shall develop a defensible technical approach for all remediation design by proposing, developing, and coordinating a risk-based end-state based on risk analysis, projected future land use, and points of compliance and evaluation. The Contractor shall submit a *Risk-Based Strategy* (Deliverable C.2.2.1) for DOE and regulator review, coordinate the review and implementation of the *Risk Based Strategy* with DOE and the regulators, and integrate agreements that result from the *Risk Based Strategy* into the remediation design.

The Contractor shall submit a separate *600 Area Remediation Design Solution* (for the 618-10 and 618-11 Burial Grounds) for DOE approval (Deliverable C.2.2.2). This *600 Area Remediation Design Solution* shall include the: characterization and analysis results from any field investigations; analysis and selection of retrieval and packaging technology(ies); engineering analyses; proposed waste disposal pathways; identification of required Government-Furnished Services and Information; schedule; and cost estimate to perform the field work. The 618-10 and -11 Burial Grounds are part of the 300-FF-2 Record of Decision. DOE will separately authorize all 600 Area Field Remediation as described in the Section B clause entitled *DOE Authorization of CLIN 2 and CLIN 3*.

The Contractor shall coordinate with the PHMC and PNNL, and submit individual *Detailed D4 Plans* (Deliverable C.2.2.3) for: 100-K Area D4, 100-N Area D4, and D4 for each of the PNNL-occupied and Supporting Facilities in the 300 Area. The *Detailed D4 Plans* shall: describe the approach to transfer facility and operational knowledge required to complete D4; define access requirements for the Contractor to conduct characterization, surveys, inventory, and other related activities; and identify opportunities for early release for work on individual facilities in advance of the dates shown in the *Constraints* sections of this *Statement of Work*. The Contractor may propose an accelerated date for early release of individual facilities. Proposed early release dates require the agreement of the Contractor and the PHMC and/or PNNL, and require DOE

approval to change the dates shown in the *Constraints* sections of this *Statement of Work*.

Government-Furnished Services and Information:

- DOE may periodically conduct in-process assessments of the remediation design; and
- If DOE elects to conduct technology evaluation and demonstration for the 600 Area Remediation, DOE will provide this information to the Contractor. The Contractor has full responsibility to evaluate and select technology(ies) for the 600 Area Remediation.

C.2.3 ACTIVITY 3: REGULATORY AND SUPPORTING DOCUMENTATION

Scope and Completion Criteria:

The Contractor shall prepare and submit all regulatory and supporting documentation required for the regulatory approvals to complete all work under this Contract, and implement all regulatory requirements that result from the regulatory and supporting documentation.

Entrance Condition:

Section C.9, List of Existing Regulatory and Supporting Documentation, in the *Statement of Work*, provides a list of existing regulatory and supporting documentation, including: 100 Area Regulatory Documentation, 100 Area Action Memorandum, ERDF Regulatory Documents, 300 Area Regulatory Documents, Resource Conservation and Recovery Act (RCRA) Permits, EE/CA/Removal Action Work Plans, NEPA Documentation, and Other Documents.

The 100 and 300 Area source operable units have been programmatically separated from the groundwater operable units. The Hanford Site groundwater program is performed by other Hanford contractors, with assigned contractual responsibility for the groundwater program, the groundwater operable units, and groundwater transported contaminants into the riparian zone and the Columbia River. The current approach is to first attempt to restore groundwater to its highest potential use, and second, specify alternative concentration limits or alternative point(s) of compliance.

Constraint(s): none

Requirement(s):

The Contractor shall comply with: 1) the TPA in accordance with the Section H clause entitled Environmental Responsibility, 2) all interim and final Records of Decision (ROD) and the requirements in each ROD, 3) all requirements in Section C.9, List of Existing Regulatory and Supporting Documentation, and 4) all applicable regulatory requirements.

The Contractor shall integrate NEPA and RCRA required activities into the CERCLA process for the RC wherever appropriate. The Contractor shall prepare the technical information required for any additional NEPA analyses and/or documentation that may be required.

The Contractor shall prepare, submit, and receive DOE and regulatory approvals for all additional regulatory and supporting documentation required to complete the work under

this Contract (Deliverable C.2.3.1). The Contractor shall provide all necessary support to DOE in executing its owner role with regulators and stakeholders in the preparation, submission, and approval of regulatory and supporting documentation.

The Contractor shall integrate the work performed under this Contract for the source operable units and the work performed by other Hanford contractors for the groundwater operable units. The Contractor shall prepare an *Integrated RC Work Plan for a CERCLA Baseline Risk Assessment*, for DOE and regulatory approval (Deliverable C.2.3.2), which will serve as the basis for the risk assessment required for final regulatory decisions for all operable units in the RC. The Contractor is responsible for preparing the regulatory and supporting documentation for source operable units, including surface-transported contaminants within the riparian zone.

Upon completion of an individual remedial action or related group of remedial actions, the Contractor shall prepare, submit, and receive DOE approval and regulatory approvals for a Waste Information Data System reclassification form and supporting documentation package. DOE and regulator approvals of the WIDS reclassification form and supporting documentation are required and are a condition precedent to meeting the requirements of Deliverable C.2.11.2, *Remedial Action Report*.

The Contractor is assigned lead responsibility for coordination with the regulators to develop an optimum regulatory approach for all work under this Contract. As part of this responsibility, the Contractor is encouraged to propose changes to the regulatory approach, including: changes to current regulatory end-points to establish risk-based end-states that maintain protection of human health and the environment; and innovations to regulatory strategies and processes that improve total performance. The Contractor shall not assume that each innovation will result in a change to the regulatory approach.

Proposed changes to the regulatory approach will require the Contractor to consult with DOE as an owner in advance of any proposed change. The Contractor shall comply with existing TPA, ROD, and applicable regulatory requirements pending regulatory approval of any change. Following consultation with DOE, the Contractor is assigned the lead responsibility to coordinate with the regulators and stakeholders to implement proposed changes.

Government-Furnished Services and Information:

- DOE will operate as an owner¹ in coordination with the regulators to reach agreement on Contractor-prepared regulatory and supporting documentation;
- DOE will operate as an owner in coordination with the regulators to reach agreement on innovations that require changes to the regulatory approach;
- DOE will review, approve, and/or certify as required, all regulatory and supporting documentation;
- DOE will direct other Hanford contractors to provide the Contractor: 1) access to groundwater program information, and 2) the regulatory and supporting documentation for the groundwater operable units;
- DOE will prepare any additional NEPA analyses and/or documentation that may be required; and

¹ "Owner" is defined as the Federal organization that is responsible for the Hanford Site and the activities that are conducted on the site.

- DOE will provide existing Safety Basis documentation for Hazard Category 2 and 3 Facilities.

C.2.4 ACTIVITY 4: DEACTIVATE, DECONTAMINATE, DECOMMISSION, AND DEMOLISH (D4) FACILITIES

Scope and Completion Criteria:

The Contractor shall complete D4 on the excess facilities shown in Attachment J-1, *Table of River Corridor Closure Contract Workscope*, in accordance with all actions and requirements contained in the regulatory and supporting documentation.

Entrance Condition:

The starting status for D4 of facilities in the 100 and 300 Areas is shown in Section J, Attachment J-1, *Table of River Corridor Closure Contract Workscope*. Additional information on 300 Area facilities is located in the *Hanford Site 300 Area Accelerated Closure Project Plan* (HNF-6465).

Constraint(s):

100 Area:

100 K Area facilities and the infrastructure, utility systems, personnel access, vehicular access, and parking required for the safe occupancy and use of these facilities for completion of the spent nuclear fuel mission, have a delayed release to the Contractor to initiate D4; 100 K East is delayed to October 2006, and 100 K West is delayed to December 2007.

300 Area:

Buildings 303B, 3712, and 3716 have a delayed release to the Contractor to September 2006 for completion of uranium removal. Building 327 has a delayed release to the Contractor to September 2006 for completion of special case waste removal.

Nineteen (19) facilities in the 300 Area are currently or have been recently occupied by the Pacific Northwest National Laboratory (PNNL). Five (5) of these facilities will be vacant at Contract award. Fourteen (14) of these facilities have a delayed release to the Contractor to initiate D4 and are included as part of CLIN 2 as described in the Section B clause entitled *Type of Contract – Items Being Acquired*. Table C.3, *300 Area Facilities Occupied by PNNL*, provides the facility name, facility number, and release date to the Contractor to initiate D4. The Contractor shall maintain the infrastructure, utility systems, personnel access, vehicular access, and parking required for the safe occupancy and use of these facilities by PNNL through the release dates shown in Table C.3.

In addition to the defined release dates shown in Table C.3, *300 Area Facilities Occupied by PNNL*, DOE will evaluate the readiness for PNNL to vacate these PNNL-occupied and supporting facilities. Based on the results of the DOE evaluation, DOE will make a decision to authorize or not authorize D4 on the facilities shown in Table C.3, *300 Area Facilities Occupied by PNNL*, as described in the Section B clause entitled *DOE Authorization of CLIN 2 and CLIN 3*.

Table C.3: 300 Area Facilities Occupied by PNNL

Facility Name	Facility Number	Release Date
Hazardous Waste Storage Facility	305B	October 2007
Radiological Calibrations Laboratory	318	October 2009
Physical Sciences Laboratory	320	October 2009
Mechanical Properties Laboratory	323	October 2009
Radiochemical Processing Laboratory Complex	325	October 2009
Material Sciences Laboratory	326	October 2009
Chemical Sciences Laboratory	329	October 2009
Life Sciences Laboratory Complex	331	October 2009
High-Bay Testing Facility	336	October 2009
Maintenance Building	338	October 2009
Plant Operations and Maintenance Facility	350	October 2009
General Storage	3718P	October 2009
Gamma Irradiation Facility	3730	October 2009
Technical Library	3760	October 2009

400 Area:

This *Activity* specifically excludes the remediation of facilities associated with the Fast Flux Test Facility reactor area (to be performed under a separate contract), and the Fuels Materials Examination Facility complex (427 Building, 4862 Building, 451 and 451B Electrical Substations, Support Facilities North of 427 Building, and 400 Area Process Pond and Sewer System).

Support Facilities:

The 100 Area, 300 Area, and 400 Area Fire Stations, and the utility systems, communication systems, and personnel access required to support these facilities, have a delayed release to the Contractor to initiate D4. Each Fire Station and its supporting systems will be released to the Contractor to initiate D4 based on the earlier of two events: 1) completion of the Hanford Fire Department Baseline Needs Assessment eliminating the need for the Fire Station (the Assessment is prepared and updated by the PHMC, and approved by DOE); or 2) six months following completion of all other D4 within an Area.

Requirement(s):

The Contractor shall complete D4 on facilities in accordance with the actions and all regulatory requirements established in the regulatory and supporting documentation.

The Contractor shall complete D4 for Buildings 313, 314, and 314B in the 300 Area by September 2006.

The Contractor shall complete all required characterization and analysis to support this *Activity*.

Government-Furnished Services and Information:

- DOE will coordinate with PHMC, ERC, PNNL, and JOCO contractors to provide all available historical information and current documentation on facilities for D4;

- DOE will coordinate with other Hanford Site contractors for turnover of facilities with delayed release shown in Section C.2.4, *D4 Facilities, Constraint(s)*; and
- DOE will allow the Contractor to reuse existing office and other facilities located in the RC prior to D4; the Contractor has full responsibility to provide required services and maintain these facilities.

C.2.5 ACTIVITY 5: REACTOR INTERIM SAFE STORAGE

Scope and Completion Criteria:

The Contractor shall place B, H, KE, KW, and N Reactors in Interim Safe Storage (ISS); and maintain B, C, D, DR, F, H, KE, KW, and N Reactors in ISS status through the end of the Contract, in accordance with all actions and requirements contained in the regulatory and supporting documentation.

Entrance Condition:

C, D, DR, and F Reactors will be in ISS status; work on H Reactor to place the facility into ISS will be ongoing; and no work to place B, KE, KW, and N Reactors will have been performed.

Constraint(s):

100 Area:

B Reactor will have a delayed release to the Contractor for ISS to evaluate a permanent museum/park concept, with a release date to the Contractor in October 2006. If DOE determines the museum/park concept is viable, the B Reactor ISS scope will be changed under the provisions of the Section I clause entitled *Changes*.

KE and KW Reactors will have a delayed release to the Contractor to allow the Hanford Spent Nuclear Fuel Mission to be completed, with release dates to the Contractor, as described in Section C.2.4, *Activity 4: D4 Facilities*.

Requirement(s):

The Contractor shall place and maintain all nine former production reactors in ISS status through the period of Contract performance, in accordance with the actions and all regulatory requirements established in the regulatory and supporting documentation.

The Contractor shall D4 the production reactors that have not been placed into ISS status, by completing D4 up to the reactor shield wall/block, and removing associated above ground and underground structures and other systems outside of the reactor shield wall/block.

The Contractor shall complete all required characterization and analysis to support this *Activity*.

The Reactors will remain in ISS status after the period of performance of this Contract, and the Contractor shall transition the nine reactors to a successor contractor at the end of the Contract.

Government-Furnished Services and Information:

- DOE will coordinate with the ERC contractor to provide all available historical information and current documentation for the nine former production reactors; and
- DOE will coordinate with the ERC contractor to provide the existing ISS design information for C, DR, F, and H Reactors.

C.2.6 ACTIVITY 6: FIELD REMEDIATION

Scope and Completion Criteria:

The Contractor shall complete Field Remediation on the liquid waste sites, waste sites, burial grounds, and confirmatory sampling sites shown in Attachment J-1, *Table of River Corridor Closure Contract Workscope*, and in accordance with all actions and requirements contained in the regulatory and supporting documentation.

Entrance Condition:

The starting status for field remediation in the 100 and 300 Areas is shown in Section J, Attachment J-1, *Table of River Corridor Closure Contract Workscope*. Additional information on the 300 Area can be found in the *Hanford Site 300 Area Accelerated Closure Project Plan* (HNF-6465). No field remediation work has started in the 400 and 600 Areas.

Constraint(s):

The Contractor shall not proceed with Field Remediation activities in the 600 Area until authorized by DOE as described in the Section B clause entitled *DOE Authorization of 600 Area Field Remediation*.

Requirement(s):

The Contractor shall complete field remediation in accordance with the actions and all regulatory requirements established in the regulatory and supporting documentation.

The Contractor shall complete all required characterization and analysis to support this *Activity*.

Government-Furnished Services and Information:

- DOE will coordinate with PHMC, ERC, and PNNL contractors to provide all available historical information and current documentation for field remediation sites.

C.2.7 ACTIVITY 7: WASTE OPERATIONS

Scope and Completion Statement:

The Contractor shall transfer and dispose of all wastes generated under this Contract, expand and operate the Environmental Restoration and Disposal Facility (ERDF), and transition ERDF to a successor operator at the end of the Contract.

Entrance Condition:

There are two facilities to disposition wastes generated under this Contract: 1) the ERDF, a centralized CERCLA disposal facility operated under this Contract; and 2) the Central Waste Complex (CWC), a central storage facility for low-level, mixed low-level, transuranic, mixed transuranic, and other hazardous wastes that require treatment prior to disposal, operated by others under a different Hanford Site contract.

Constraint(s):

Use of the CWC by the Contractor is limited to only those wastes generated under this Contract that can not be treated and disposed of in the ERDF.

Requirement(s):

The Contractor shall operate ERDF in accordance with the actions and all regulatory requirements established in the regulatory and supporting documentation. The Contractor shall prepare, submit, and maintain all required modifications to the regulatory and supporting documentation for the expansion and operation of ERDF under this Contract.

The Contractor shall optimize the approach to dispose of wastes generated under this Contract, and coordinate with regulator and stakeholders to build agreement for an optimized approach.

The Contractor shall treat all wastes as required to meet applicable Waste Acceptance Criteria; transfer and dispose wastes in the ERDF; and package and transfer wastes to be stored at CWC.

The Contractor shall comply with the Waste Acceptance Criteria for ERDF that are defined in BHI-00139 (Rev. 3), *Environmental Restoration Disposal Facility Waste Acceptance Criteria*, and maintain and update this Waste Acceptance Criteria as required throughout the period of Contract performance.

The Contractor shall comply with the Waste Acceptance Criteria for the CWC that are defined in:

<http://www.hanford.gov/wastemgt/wac/acceptcriteria.cfm>

The Contractor shall maintain and operate the ERDF in accordance with regulatory requirements; expand ERDF as necessary, with a minimum expansion to include the construction of ERDF Cells 7, 8, 9, and 10 for future waste disposal under this Contract, with vadose zone monitoring for future disposal cells; and transfer leachate to the 200 Area Effluent Treatment Facility (ETF) and receive ETF residues for disposal at ERDF.

ERDF will remain in operation after the period of performance of this Contract, and the Contractor shall transition ERDF to a successor operator at the end of the Contract.

The Contractor shall be prepared to receive additional wastes from other waste generators for disposal at ERDF. The Contractor shall coordinate with other waste generators that require disposal at ERDF, and develop and update: 1) waste volume projections; and 2) a service provider approach (including regulatory, technical, contractual, and other required features). The Contractor shall provide these services to other waste generators, and recover disposal costs from other waste generators for

disposal at ERDF. The proposed waste volume projections and service provider approach will be subject to periodic DOE review and approval.

The Contractor shall complete all required characterization and analysis to support this *Activity*.

Government-Furnished Services and Information:

- DOE will direct the PHMC to coordinate with the Contractor, and receive wastes at CWC.
- DOE will direct the PHMC to coordinate with the Contractor, and receive ERDF leachate at the 200 Area Effluent Treatment Facility.

C.2.8 ACTIVITY 8: OPERATE AND CLOSE UTILITY SYSTEMS

Scope and Completion Criteria:

The Contractor shall operate, maintain, and close all utility systems that are located in the RC, described in the document entitled "River Corridor Closure Contract Utility System Description," except as noted in the *Constraint(s)* below.

Entrance Condition:

Entrance Conditions are hereby incorporated by reference and are described in the *River Corridor Closure Contract Utility System Description* made available to the Contractor.

Constraint(s):

Electrical System:

This *Activity* specifically excludes the following components of the Electrical System: 1) electrical systems owned and operated by BPA; 2) Hanford Site 230 kV transmission lines, substations, and supporting equipment; 3) Hanford Site 13.8 kV distribution lines, associated equipment, and materials in the 100 Area, 200 Area, and those extending into the 600 Area; 4) all electrical systems in the 400 Area; 5) electrical systems owned and operated by the Benton PUD (traveling along Highway 240 and north to the 200 Areas and serving loads at the Yakima Barricade, the Rattlesnake Barricade, and air samplers at the Army Loop Road, south of US Ecology, at Rattlesnake Springs, and at the Vernita Bridge); 6) electrical systems owned and operated by the Benton REA (traveling north of Highway 240 to the Wye Barricade and serving loads at the Wye Barricade, street lights at the Route 10 and 4S intersection and the Wye Barricade); 7) electrical systems owned and operated by Avista Utilities (tapping off a BPA line near the Hanford Townsite and crossing the Columbia River); 8) the Hanford Site electrical dispatch center and SCADA System; and 9) all equipment, materials, and spare parts for all Hanford Site transmission and distribution systems in the existing Hanford Site inventory. The Contractor shall protect these systems against disruption and damage during performance of work under this Contract. The specific interface points between the electrical distribution systems and the buildings and facilities they serve are identified in the Hanford Site electrical diagrams.

Miscellaneous 300 Area Systems:

This *Activity* specifically excludes all natural gas systems owned and operated by Cascade Natural Gas.

The Building Heat and Compressed Air systems in the 300 Area operated under a separate service contract with JCI have a delayed release to the Contractor until October 2007.

The 310 TEDF, the support 340 Facility, the associated 307 Retention Basins, the 342 Collection Sump Facility, and supporting infrastructure will have a delayed release to the Contractor until the treatment capability is no longer required or provided through alternative methods and systems.

Sanitary Waste Systems:

This *Activity* specifically excludes all 300 Area Sanitary Waste Systems owned and operated by the City of Richland.

Water System:

This *Activity* specifically excludes the following components of the 100 Area Water System: 182 B Area River Pump House; 182 B Open Concrete Reservoir; 182 D Area River Pump House; 182 D Open Concrete Reservoir; and the pipe connecting the 100 Area water system to the 200 Area.

This *Activity* specifically excludes all 300 Area Water Systems owned and operated by the City of Richland.

Requirement(s):

The Contractor shall develop an integrated approach to furnish, operate, maintain, and close (where applicable) the required utility services in the 100, 300, 400, and 600 Areas. The Contractor shall provide utility services in accordance with all of the *Requirements* and *Constraints* described within this *Statement of Work*. The Contractor may elect to provide utility services using existing and/or alternative methods and systems. For all facilities with a delayed release to the Contractor, the Contractor shall provide for safe and reliable continuity of utility services for each delayed release facility through the release date specified for the facility. The Contractor shall make the appropriate decisions on equipment and systems, including decisions to run-to-failure.

The Contractor shall transition control of all utility systems at the Hanford Site including Electrical, Miscellaneous 300 Area Systems, Sanitary Waste, and Water systems located in the RC (except those identified in the *Constraints* of this *Section*) from the PHMC to the Contractor by October 2006; and transition the steam system from JCI to the Contractor by October 2007. Control of the utility systems does not require self-performance of the operation, maintenance, and closure of the utility systems. The Contractor may enter into a service-provider relationship with Hanford Site contractors and/or other utility providers for the operation, maintenance, and/or closure of all or part of the utility systems.

The Contractor shall support Hanford Site utility service, outage, and termination planning, including: 1) provide projections in response to all DOE requests for annual and/or multi-year utility service projections (Deliverable C.2.8); 2) coordinate all planned utility service outages with each affected Hanford Site users 60 days in advance of any service interruption; and 3) coordinate all planned utility service terminations 180 days in

advance of any service termination with each affected Hanford Site user (and in accordance with all of the *Constraints* described within this *Statement of Work*).

The Contractor is responsible for all of its costs to maintain, operate, and close (where applicable) the required utility services in the 100, 300, 400, and 600 Areas throughout the period of Contract performance. The Contractor shall develop a proposed cost recovery approach for utility services provided to other Hanford Site users located in the RC, and recover the pro-rated share of utility service costs from other Hanford Site users throughout the period of Contract performance. The proposed cost-recovery approach will be subject to periodic DOE review and approval.

Government-Furnished Services and Information: none

C.2.9 ACTIVITY 9: SURVEILLANCE AND MAINTENANCE

Scope and Completion Criteria:

The Contractor shall perform surveillance and maintenance of all facilities during the period of performance of the Contract.

Entrance Condition:

Multiple surveillance and maintenance programs are currently being conducted by the ERC in the 100 and 300 Areas, and at the ERDF; and by the PHMC in the 100, 300, 400, and 600 Areas.

Surveillance and maintenance programs are being conducted by PNNL for the 14 PNNL-occupied facilities in the 300 Area shown in Table C.3, *300 Area Facilities Occupied by PNNL*.

Constraint(s): none

Requirement(s):

The Contractor shall develop and implement a graded surveillance and maintenance approach consistent with the condition of the individual facilities and/or field remediation sites; the hazards identified through the ISMS and other appropriate analyses; and the plans for closure. The Contractor shall make the appropriate decisions on equipment and systems, including decisions to run-to-failure, based on its needs to perform work under this Contract and maintain required regulatory monitoring systems.

For facilities with a delayed release to the Contractor for D4, the Contractor is responsible for surveillance and maintenance starting at the delayed release date through the end of the Contract.

Government-Furnished Services and Information: none

C.2.10 ACTIVITY 10: MISCELLANEOUS RESTORATION

Scope and Completion Criteria:

The Contractor shall complete miscellaneous restoration that is not provided for in the regulatory and supporting documentation.

Entrance Condition:

Abandoned areas are located across the RC that contain miscellaneous above-ground utility structures and components that are no longer in use; abandoned fencing and debris; and areas that require backfill, grading, and re-vegetation.

Constraint(s): none

Requirements(s):

The Contractor shall remove all above-ground utility structures and components no longer in use, remove all surplus fencing and debris, restore the landscape through backfill and grading to match the natural contours of the area, restore positive drainage, and re-establish native vegetation.

Government-Furnished Services and Information: none

C.2.11 ACTIVITY 11: CLOSURE AND LONG-TERM STEWARDSHIP

Scope and Completion Criteria:

The Contractor shall complete all activities required to: deactivate, decontaminate, decommission, and demolish excess facilities; place former production reactors in an interim safe and stable condition; remediate waste sites and burial grounds; meet regulatory requirements; and be ready to transition to long-term stewardship.

Entrance Condition: N/A

Constraint(s): none

Requirement(s):

The Contractor shall submit for DOE approval a *Long-Term Stewardship Plan – Draft* (Deliverable C.2.11.1) that provides the proposed approach and criteria to be met for long-term stewardship.

The Contractor shall submit for DOE approval a separate *Remedial Action Report (RAR)* (Deliverable C.2.11.2) for each operable unit in the RC to document the completion of remedial action for an operable unit.

The Contractor shall conduct a closure review with independent experts. The results of the closure review will be used to assure that the implemented remedies meet the required action objectives and goals in the RODs and that no further action is needed to protect human health and the environment. The Contractor shall conduct separate closure reviews for the 100 and 300 Areas.

The Contractor shall submit for DOE approval a *Long-Term Stewardship Plan – Final* (Deliverable C.2.11.3) that contains: 1) a proposed Finding of Suitability to Transfer in accordance with CERCLA Section 120 (h); and 2) the final criteria required for long-term stewardship and how these criteria have been met. DOE approval of the *Long-Term Stewardship Plan – Final* is a condition precedent to Completion of Contract Requirements.

Government-Furnished Services and Information:

DOE will furnish one of the independent experts for the closure review(s).

C.3 ENVIRONMENT, SAFETY, QUALITY, AND HEALTH

C.3.1 INTEGRATED SAFETY MANAGEMENT SYSTEM (ISMS)

The Contractor shall establish and maintain a single, project-wide ISMS in accordance with the requirements of the Section I clause entitled *Integration of Environmental, Safety and Health into Work Planning and Execution*, Section I clause entitled *Laws, Regulations, and DOE Directives*; and the Section B clause entitled *Conditional Payment of Fee, Profit and Other Incentives*. DOE will provide guidance to the Contractor on the preparation, content, review and approval of the Contractor's ISMS as specified within Section I Clause entitled *Integration of Environmental, Safety and Health into Work Planning and Execution*.

The Contractor shall submit its ISMS Description for DOE approval (Deliverable C.3.1). Until DOE approves the Contractor's ISMS Description, the Contractor shall adopt and implement existing ISMS Descriptions.

C.3.2 ENVIRONMENT, SAFETY, QUALITY, AND HEALTH (ESQH) PROGRAM

The Contractor shall establish and maintain an integrated ESQH program to ensure the protection of human health and the environment. The Contractor's ESQH program shall be operated as an integral and visible part of Contract performance. The Contractor's ESQH program shall include effective work planning and execution, establish clear priorities, allocate the appropriate resources, establish performance measures, analyze performance, and take effective actions.

The Contractor shall flow the applicable ESQH requirements down to all levels of self-performed work and all tiers of subcontracted work performance, and promptly identify and correct areas of non-compliance and performance concerns on self-performed and subcontracted levels of work performance.

C.3.2.1 ENVIRONMENTAL

The Contractor shall develop and implement an integrated program to provide environmental protection and compliance, and take the actions that are described in Section C.2.3, *Regulatory and Supporting Documentation*. The Contractor shall submit for DOE approval, an *Environmental Protection and Compliance Plan* (Deliverable C.3.2.1). The *Environmental Protection and Compliance Plan* shall describe the current environmental protection and compliance framework, proposed changes to this framework, and the proposed approach to maintain compliance throughout the Contract.

C.3.2.2 NUCLEAR SAFETY

The Contractor shall develop and implement a graded approach to maintain compliance with 10 CFR 830, *Nuclear Safety Rule*, for the facilities that require compliance with the *Nuclear Safety Rule*. The Contractor shall Maintain the Existing Safety Basis for all Hazard Category 2 and 3 Facilities (Deliverable C.3.2.2) until the hazards are reduced to a level that the Safety Basis can be cancelled.

C.3.2.3 QUALITY

The Contractor shall develop and implement an integrated quality program that reflects the Contractor's graded approach to quality across all project activities. The Contractor shall submit for DOE approval, a *Quality Assurance Program Description* (QAPD) (Deliverable C.3.2.3), in accordance with the applicable requirements of 10 CFR 830 Subpart A, *Quality Assurance Requirements*; Contractor Requirements Document (CRD) O 414.1A, *Quality Assurance*; *EPA Requirements for Quality Assurance Project Plans* (EPA QA/R-5); and other quality assurance documents as may be applicable. The Contractor may adopt existing QAPDs as an interim measure.

C.3.2.4 WORKER SAFETY AND HEALTH

The Contractor shall develop and implement a single Worker Safety and Health Program that eliminates, limits, or mitigates the identified workplace hazards in a manner that is necessary and sufficient to provide adequate protection of workers and is tailored to reflect the activities and hazards in particular work environments.

C.3.2.5 OCCUPATIONAL RADIATION PROTECTION

The Contractor shall document and implement a single Radiation Protection Program (RPP) as required by 10 CFR 835.101. The Contractor shall submit the RPP for DOE approval (Deliverable C.3.2.5). The Contractor may adopt existing RPPs as an interim measure.

C.3.2.6 CHRONIC BERYLLIUM DISEASE PREVENTION PROGRAM

The Contractor shall develop and implement a single Chronic Beryllium Disease Prevention (CBDP) Program that supplements and is integrated into the WSHP. The Contractor shall submit for DOE approval, a CBDP Program (Deliverable C.3.2.6) in accordance with 10 CFR 850. The Contractor may adopt an existing CBDP program as an interim measure.

C.3.3 REPORTING

The Contractor shall report all environmental, safety, and health events and information as required in CRD M 231.1-1A, *Environment, Safety, and Health Reporting*; DOE O 450.1, *Environmental Protection Program*; and DOE O 5400.5, *Radiation Protection of the Public and the Environment* (Deliverable C.3.3). The Contractor shall flow down the applicable reporting requirements to all levels of self-performed work and all tiers of subcontracted work performance. The Contractor shall consolidate all information and serve as a single point of reporting to DOE for all environmental, safety, and health events and information.

The Contractor shall provide all required support for the preparation of annual and/or periodic consolidated Hanford Site reports for all Contract activities, including summaries of work performed, monitoring and assessment, compliance status, identification and resolution of problems, and other related activities. As part of the consolidated reporting activities, the Contractor shall provide the necessary support to multi-contractor Hanford Site working groups responsible for report preparation.

C.3.4 ACCIDENT INVESTIGATION

The Contractor shall support all Type A and Type B accident investigations for accidents on all self-performed and subcontracted levels of work performance, as required in CRD O 225.1A, *Accident Investigations*. The Contractor shall establish and maintain readiness to respond to an accident; respond to all accidents; mitigate potential accident consequences; assist in preserving, collecting, and processing information and evidence from the scene of the accident; and provide all necessary support required to investigate the accident and support an accident investigation board.

C.3.5 INTERACTIONS WITH THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD

The Defense Nuclear Facilities Safety Board (DNFSB) is responsible for nuclear safety oversight authority of DOE and its activities. As directed by the Contracting Officer, the Contractor shall conduct activities in accordance with DOE commitments to the DNFSB, which are contained in implementation plans and other DOE correspondence to the DNFSB. The Contractor shall support preparation of DOE responses to DNFSB issues and recommendations that affect Contract scope. As directed by the Contracting Officer, the Contractor shall fully cooperate with DNFSB and provide access to work areas, personnel, and information, as necessary. The Contractor shall maintain a document process consistent with the CRD M 140.1-1B, *Interface with the Defense Nuclear Facilities Safety Board*.

C.4 GOVERNMENT-FURNISHED SERVICES AND INFORMATION (GFS/I)

DOE has identified the following Government-Furnished Services and Information (GFS/I) to be furnished under the Contract: 1) GFS/I within each subsection of Section C.2, *Description of Performance Requirements*, and 2) mandatory Hanford Site Services provided as GFS/I as described in Attachment J-13, *Hanford Site Services*. GFS/I is summarized in Attachment J-12, *Government-Furnished Services and Information (GFS/I)*.

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

- *Government-Furnished Services and Information Request* (Deliverable C.4.1), a 12-month advance projection of GFS/I to be furnished under the Contract and additional Contractor-requested GFS/I, to be submitted prior to each fiscal year; and
- *Government-Furnished Services and Information Request -- Update* (Deliverable C.4.2), a quarterly update to the projection of GFS/I to be furnished under the Contract and additional Contractor-requested GFS/I, to be submitted prior to each quarter.

DOE will review the 12-month advance projection (Deliverable C.4.1). If DOE can support the additional Contractor-requested GFS/I, DOE will notify the Contractor within 30 days that the additional Contractor-requested GFS/I can be provided, and will provide the Contractor details regarding the DOE action(s). The supported GFS/I will be added to Attachment J-12, *Government-Furnished Services and Information (GFS/I)*, as a DOE commitment to the Contractor.

DOE will review the quarterly update (Deliverable C.4.2). If DOE can support the additional Contractor-requested GFS/I, DOE will notify the Contractor within 15 days that the additional Contractor-requested GFS/I can be provided, and will provide the Contractor details regarding the DOE action(s). The supported GFS/I will be added to Attachment J-12, *Government-Furnished Services and Information (GFS/I)*, as a DOE commitment to the Contractor.

If DOE cannot support a Contractor request, DOE will notify the Contractor within 15 days that the requested GFS/I cannot be provided, and there will be no DOE commitment to the Contractor to furnish the GFS/I.

For the additional Contractor-requested GFS/I, DOE will use its best efforts to meet additional GFS/I commitments to the Contractor. However, in the event that DOE is unable, for any reason, to provide the Contractor with its requested additional GFS/I, the Contractor remains fully and solely responsible for obtaining the needed services and/or information in a timely manner and without any further recourse against DOE.

For each GFS/I that includes an interface with other Hanford contractors, the Contractor shall coordinate with the each of the contractors to support a cooperative and effective delivery of GFS/I.

C.5 PROJECT MANAGEMENT

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 as the RC Closure Project.

DOE will continuously seek to improve RC Closure 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 RC Closure Project performance.

C.5.1 PROJECT INTEGRATION AND CONTROL

The Contractor is responsible to integrate and control the RC Closure Project, and shall coordinate and integrate all RC Closure Project activities. As part of the project integration responsibilities, the Contractor shall develop an RC *Project Management Plan* (PMP), execute the plan, and coordinate changes to the plan across the project.

The Contractor shall submit for DOE approval, the *RC PMP* (Deliverable C.5.1) in accordance with the requirements of DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*. The Contractor shall perform all responsibilities assigned to the Contractor in the *RC PMP*, and develop a graded approach to implement Order requirements.

The Contractor shall support all DOE and Hanford Site initiatives to coordinate, present, and integrate the RC Closure Project. The Contractor shall participate and provide all necessary support for: coordination, presentation, and integration initiatives with DOE, DOE prime contractors, regulators, advisory boards, tribal governments, and/or stakeholders.

During the planning, execution, and control of the RC Closure Project, the Contractor shall support all DOE and Hanford Site commitments to tribal governments in accordance with DOE P 141.1, *Department of Energy Management of Cultural Resources*, and the *DOE American Indian & Alaska Native Tribal Government Policy*.

C.5.2 PROJECT SCOPE, SCHEDULE, AND COST BASELINE

The Contractor shall develop an integrated scope, schedule, and cost baseline, submit the integrated *Project Baseline* for DOE approval (Deliverable C.5.2), and maintain the integrated *Project Baseline* throughout the period of Contract performance. The *Project Baseline* shall:

- Provide the basis for detailed scope definition, cost estimate information, budgetary reporting, performance measurement, and performance reporting under this Contract;
- Integrate with the ISMS described in Section C.3, Environment, Safety, Quality, and Health (ESQH) Program;
- Integrate with the financial system(s) to ensure consistent and accurate reporting of information, with traceability to budget and report codes, project baseline summary structure, and work breakdown structure;
- Integrate with the risk management approach described in Section C.6, *Risk Management*;
- Provide an integrated and traceable scope baseline for the life-cycle of the RC Closure Project, with specific scope statements, activities and deliverables, and acceptance requirements;
- Provide an integrated and traceable schedule baseline for the life-cycle of the RC Closure Project, with project activity definition, logic, and schedule; all regulatory milestones and commitments; DOE, Congressional, and external commitments; and performance milestones²;
- Provide an integrated and traceable cost baseline for the life-cycle of the RC Closure Project, with project resource plans, detailed resource estimates, budgetary requirements; and identification of direct costs, indirect costs, and fee; and
- Provide a Contingency Profile that defines total cumulative project contingency utilization against time for the life-cycle of the RC Closure Project, with traceable links to the scope, schedule, and cost baselines (project contingency utilization shall never exceed the project contingency level shown in the Profile at any point in time; DOE approval is required for project contingency utilization above the profile at any point in time).

C.5.3 PROJECT BASELINE CHANGE CONTROL

In coordination with DOE, the Contractor shall develop and submit for DOE approval, an integrated *Project Baseline Change Control Process* (Deliverable C.5.3), with change authorities consistent with the approved *RC PMP*. The objectives of the integrated *Project Baseline Change Control Process* are to operate a joint DOE-Contractor project baseline change control system, and to provide for DOE-Contractor joint project contingency management. The Contractor shall implement and provide all necessary support to the integrated project baseline change control system.

² Performance milestones are described in the Section B clause entitled *Incentive Fee Payments*.

The *Project Baseline* shall be used as the reference for all baseline changes. Baseline changes shall be processed in accordance with the *Project Baseline Change Control Process*.

All changes to Target Cost, Target Fee, and Schedule will be made in accordance with Section B, *Supplies or Services and Prices/Costs*.

C.5.4 PROJECT PERFORMANCE INFORMATION AND MEASUREMENT

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

The Contractor shall implement and maintain a project performance measurement system that provides accurate, timely, and meaningful progress information for the RC Closure Project. The Contractor shall submit a *Performance Management System Description* for DOE approval (Deliverable C.5.4.1) that describes the proposed RC Closure Project performance management approach.

The Contractor shall submit a *Monthly Performance Report* for DOE review (Deliverable C.5.4.2) that contains the following minimum information for the current month, current quarter, and cumulative-to-date:

- Evaluation of safety performance (including ISMS metrics and all recordable injuries, lost-time injuries, and near-misses);
- Evaluation of quality performance (including identification of performance trends, required corrective actions, and corrective action status);
- *Risk Management Report* (as described in Section C.6, *Risk Management*);
- Evaluation of project scope baseline accomplishments, significant accomplishments, regulatory commitments, and DOE/Congressional commitment metrics;
- Evaluation of project schedule baseline performance, variances, and critical path;
- Evaluation of project cost baseline performance and variances;
- Evaluation of performance against Target Cost, Target Fee, and schedule;
- Identification of acceleration initiatives, management actions required from DOE to enable acceleration, and Contractor evaluation of performance against acceleration initiatives;
- Evaluation of contingency utilization (linked to *Project Baseline* performance and the *Risk Management Report* [shown in Section C.6, *Risk Management*]);
- Estimates-to-complete and estimates-at-completion;
- Project change control summary (as established in the *Project Baseline Change Control Process* [Deliverable C.5.3], with each change identified as required by the Section B.5 clause entitled, *Changes to Target Cost, Target Fee, and Schedule*).
- Analysis of funds expenditure, with projections by Fiscal Year and life-cycle of the RC Closure Project;

- Identification of problems and performance trends, and the required corrective actions;
- 90-day look-ahead forecast for major activities, milestones, and GFS/I needs; and
- Business structure information to demonstrate ongoing compliance with the requirements of Clause H.13 *Self-Performed Work*.

C.6 RISK MANAGEMENT

The Contractor shall develop and implement a risk management system to evaluate and take effective action on project risk. The risk management system shall address the risk to achieve RC closure, and provide a monthly *Risk Management Report* to: (1) identify all major areas of risk; (2) assess risks to establish probability, consequences, cost performance risk, and schedule performance risk; (3) manage risks to mitigate and close each area of risk; and (4) develop effective processes to identify and respond to emerging performance and regulatory risk. The Contractor shall submit for DOE approval, a *Risk Management Approach* (Deliverable C.6.1) that describes the risk management system and implementation; the *Risk Management Approach* shall be included as part of the *RC PMP* (Deliverable C.5.1). The Contractor shall submit a monthly *Risk Management Report* (Deliverable C.6.2) as part of the *Monthly Performance Report* described in Section C.5.4.

C.7 SAFEGUARDS AND SECURITY

The Contractor shall develop and implement a graded approach to safeguards and security consistent with the physical security, materials accountability, and information protection required for RC closure, and in accordance with the requirements identified in Section J, Attachment J-2, *DOE Directives Applicable to the River Corridor Closure Contract*. The Contractor shall flow down applicable safeguards and security program requirements to all self-performed and subcontracted levels of work performance. The Contractor's safeguards and security program is subject to DOE approval and periodic DOE review.

C.7.1 PHYSICAL SECURITY

The Contractor shall ensure protection against: unauthorized access; theft, diversion, and loss of custody of accountable nuclear material (source, other, and special nuclear material); theft of Government property; and other hostile acts that may cause unacceptable adverse impacts on national security or the health and safety of DOE or Contractor employees, the public, or the environment.

The Contractor shall comply with Hanford Site security awareness, security badge, and site access restriction policies. This Contract does not require the handling, preparation, or storage of classified information, and the Contractor is not responsible for classified information and access authorization requirements.

C.7.2 MATERIALS ACCOUNTABILITY

The Contractor is assigned responsibility for accountable quantities of Category IV nuclear materials and shall develop and implement a graded material control and accountability (MC&A) Plan for any accountable quantities of nuclear materials in accordance with DOE Orders and Manuals. The Contractor's MC&A Plan is subject to DOE-RL approval. The Contractor is not required to self-perform the MC&A Plan.

The Contractor shall develop and submit for DOE approval, a documented *Memorandum of Agreement (MOA) for the Safeguards and Security of Nuclear Materials in the RC* (Deliverable C.7.2), between the PHMC and the Contractor. This MOA would need to be in place if the Contractor does not self-perform the MC&A Plan.

The Contractor shall accept or renew/modify a Hanford Site agreement existing at the time of Contract award (Memorandum of Understanding [MOU] signed by Fluor Hanford, Inc. and Bechtel Hanford, Inc., *Memorandum of Agreement for the Safeguards and Security of Nuclear Material on Environmental Restoration Projects*, Revision 1, dated November 16, 2000). The purpose of this *Agreement* is to provide appropriate controls and a mechanism to transfer accountable quantities of nuclear materials greater than Category IV.

C.7.3 INFORMATION PROTECTION

The Contractor shall protect any unclassified sensitive information generated, processed, and stored within its facilities, under its administrative control, and/or within subcontracted areas of work performance. Information Security (IS) and Operations Security (OPSEC) procedures shall be developed to comply with DOE requirements for IS and OPSEC.

The Contractor shall protect wireless communications and information systems as described in DOE CRD N 205.8, *Cyber Security Requirements for Wireless Devices and Information Systems*.

C.7.4 COORDINATION WITH HANFORD SITE SAFEGUARD AND SECURITY ACTIVITIES

The Contractor shall coordinate and interface with the PHMC and its subcontractors who provide physical security services (e.g., site access control, security police officers, vulnerability analysis, etc.). The Contractor shall develop and submit for DOE approval, a *Memorandum of Agreement (MOA) for RC Physical Security Services*, identifying the division of roles and responsibilities between the Contractor and the PHMC (Deliverable C.7.4).

C.7.5 EMERGENCY PREPAREDNESS

The Contractor shall develop and maintain an emergency management program as described in DOE/RL-94-02, Rev. 2, *Hanford Emergency Management Plan*. The program shall establish the processes and instructions for all RC activities, including: response actions; associated precautions and prerequisites; and identification of responsible individuals needed to carry out the appropriate action during a drill, exercise, or actual emergency.

C.8 SUMMARY OF CONTRACT DELIVERABLES

Table C.4: Summary of Contract Deliverables

Deliverable		DOE Action		Contract Deliverable Due Date
		Action	DOE Response Time ³	
C.2.1.1	<i>Transition Plan</i>	Approve	5	10 days after award
C.2.1.2	<i>Transition Agreement</i>	Approve	15	90 days after award
C.2.2.1	<i>Risk-Based Strategy</i>	Approve	30	90 days after award
C.2.2.2	<i>600 Area Remediation Design Solution</i>	Approve	90	September 2006
C.2.2.3	<i>Detailed D4 Plans</i>	Approve	30	180 days before D4
C.2.3.1	<i>Regulatory and Supporting Documentation</i>	Review, Approve and/or Certify	30	Where required
C.2.3.2	<i>Integrated RC Work Plan for a CERCLA Baseline Risk Assessment</i>	Approve	60	September 2006
C.2.8	<i>Utility Service Projections</i>	Review	30	As required
C.2.11.1	<i>Long-Term Stewardship Plan – Draft</i>	Approve	45	October 2007
C.2.11.2	<i>Remedial Action Report</i>	Approve	30	Where required
C.2.11.3	<i>Long-Term Stewardship Plan – Final</i>	Approve	45	90 days before Completion of Contract Requirements
C.3.1	<i>ISMS Description/Phase I Verification</i>	Approve	90	90 days after award
	<i>ISMS Phase II Verification</i>	Approve	90	270 days after approval of ISMS Description
C.3.2.1	<i>Environmental Protection and Compliance Plan</i>	Approve	30	90 days after award

³ Number of calendar days for DOE to execute its GFS/I responsibilities to provide review, approval, and/or certification action on the deliverable following Contractor submission of an acceptable product; or DOE comments on the deliverable following Contractor submission of an unacceptable product that will require revision and re-submission for DOE review, approval, and/or certification action.

Deliverable		DOE Action		Contract Deliverable Due Date
		Action	DOE Response Time ³	
C.3.2.2	<i>Maintain Existing Safety Basis</i>	Approve Major Change	60	Where required
		Approve Minor Change	30	
		Approve USQ	45	
C.3.2.3	<i>Quality Assurance Program Description</i>	Approve	30	90 days after award
C.3.2.5	<i>Radiation Protection Program</i>	Approve	30	90 days after award
C.3.2.6	<i>Chronic Beryllium Disease Prevention Program</i>	Approve	30	90 days after award
C.3.3	<i>Environmental, Safety, and Health Reporting</i>	Review	30	As required
C.4.1	<i>Government-Furnished Services and Information Request</i>	Approve	30	45 days in advance of each fiscal year
C.4.2	<i>Government-Furnished Services and Information Request – Update</i>	Approve	15	Quarterly; 45 days in advance of new request
C.5.1	<i>Project Management Plan</i>	Approve	30	90 days after award
C.5.2	<i>Project Baseline</i>	Approve	60	180 days after award
C.5.3	<i>Project Baseline Change Control Process</i>	Approve	15	90 days after award
C.5.4.1	<i>Performance Management System Description</i>	Approve	30	90 days after award
C.5.4.2	<i>Monthly Performance Report</i>	Review	N/A	Monthly
C.6.1	<i>Risk Management Approach</i>	Approve	15	90 days after award
C.6.2	<i>Risk Management Report</i>	Review	N/A	Monthly
C.7.2	<i>MOA for the Safeguards and Security of Nuclear Materials in the RC</i>	Approve	15	90 days after award
C.7.4	<i>MOA for RC Physical Security Services</i>	Approve	15	90 days after award
E.1	<i>Inspection System</i>	Approve	30	90 days after award

Deliverable		DOE Action		Contract Deliverable Due Date
		Action	DOE Response Time ³	
H.2	<i>Human Resources Compensation Plan</i>	Review	15	30 days after award
H.20	<i>Litigation Management Plan</i>	Approve	30	60 days after award

C.9 LIST OF EXISTING REGULATORY AND SUPPORTING DOCUMENTATION

C.9.1 100 Area Regulatory Documents

Declaration of the Record of Decision for the selected interim remedial actions for the 100-BC-1, 100-DR-1 and 100-HR-1 Operable Units, September 1995.

Amended Record of Decision, Decision Summary and Responsiveness Summary for the selected interim remedial actions for the 100-BC-1, 100-DR-1 and 100-HR-1 Operable Units, May 14, 1997.

Declaration of the Record of Decision for the selected action for the 100-IU-1, 10-IU-3, 100-IU-4 and 100-IU-5 Operable Units, No Action ROD, February 12, 1996.

Declaration of the Record of Decision for the selected Interim Remedial Action for the 100 Area Remaining Sites: 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6 and 200-CE-3 Operable Units, July 15, 1999.

Declaration of the Record of Decision for the selected Interim Remedial Action for the 100-NR-1 and 100-NR-2 Operable Units, (81 Sites in NR-1, Groundwater and Shoreline Site in NR-2), October 22, 1999.

Declaration of the Record of Decision for the selected Interim Remedial Action for the 100 Area (100 Area Burial Grounds): 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-2, 100-HR-2, 100-KR-2 Operable Units, September 2000.

Declaration of Decision for a portion of the Interim Remedial Action for the (100 Area) 100-NR-1 Operable Unit, January 25, 2000.

Declaration of the Record of Decision, Decommissioning of Eight Production Reactors at the Hanford Site, Richland, Washington, September 14, 1993.

Explanation of Significant Differences for the 100 Area Remaining Sites Record of Decision and for the 300-FF-5 Record of Decision, June 15, 2000.

DOE/RL-96-17, Remedial Design Report/Remedial Action Work Plan for the 100 Area (DOE/RL-96-17, Rev. 4), September 2002.

DOE/RL-96-22, 100 Area Remedial Action Sampling and Analysis Plan (DOE/RL-96-22, Rev. 3), December 2001.

DOE/RL-99-58, Sampling and Analysis Plan for the 100 Area Remaining Sites (DOE/RL-99-58, Rev. 0), September 2000.

DOE/RL-2001-35, 100 Area Burial Ground Sampling and Analysis Plan (DOE/RL-2001-35, Rev. 0), December 2001.

C.9.2 100 Area Action Memoranda

Approved Action Memorandum for the 100 B/C Area Ancillary Facilities and the 108-F Building Removal Action, January 29, 1997.

Action Memorandum: Expedited Response Action Proposal; 100-BC-1 Demonstration Project, June 27, 1995.

Action Memorandum: 183-H Solar Evaporation Basin Waste Expedited Response Action Cleanup Plan, November 26, 1996.

Notice of Change to the Waste Volume Estimates in the N Area Waste Expedited Response Action Memorandum, March 6, 1997.

Action Memorandum: N Area Waste Expedited Response Action Cleanup Plan, November 7, 1996.

Action Memorandum: N Springs Expedited Response Action Cleanup Plan, September 23, 1994.

Action Memorandum: Expedited Response Action Proposal River Land Site 100-IU-1, June 23, 1993.

Action Memorandum Approval: Sodium Dichromate Barrel Landfill 100-IU-4, March 8, 1993.

Action Memorandum: Time-Critical Removal Action for clean-up of 2,4-D Burial Site, 100-IU-3 (Wahluk Slope), undated (approx. August 1997).

Action Memorandum: 105-F and 105-DR Reactor Buildings and Ancillary Facilities, AR Doc. No. 004944, July 1998.

Action Memorandum: 105-D and 105-H Reactor Buildings and Ancillary Facilities, December 8, 2000.

Action Memorandum: 100N Ancillary Facilities, December 1998.

C.9.3 ERDF Regulatory Documents

Declaration of the Record of Decision for the selected remedial action for the Environmental Restoration Disposal Facility (ERDF), January 20, 1995.

Environmental Restoration Disposal Facility (ERDF) Explanation of Significant Differences (ESD), July 26, 1996.

Amended Record of Decision for the Environmental Restoration Disposal Facility, September 25, 1997.

Amended Record of Decision, Decision Summary, and Responsiveness Summary for the Environmental Restoration Disposal Facility (Delisting ROD Amendment), March 25, 1999.

Amended Record of Decision, Decision Summary, and Responsiveness Summary for the Environmental Restoration Disposal Facility (Staging Area and Expansion), February 2002.

Requirement for Vadose Zone Monitoring of Future ERDF Cells (July 2, 2003, letter from Manager, RL, to EPA Hanford Project Office).

Time Critical Action Memorandum for Disposal at the Environmental Restoration Disposal Facility of Non-Transuranic Waste Generated During the M-91 Retrieval Operations at Burial Ground 218-W-4C, April 15, 2004.

C.9.4 300 Area Regulatory Documents

Declaration of the Record of Decision for the final and interim remedial actions for the 300-FF-1 and 300-FF-5 Operable Units CCN No. 0048470, Doc. No. 11081, July 17, 1996.

Declaration of the Record of Decision 300-FF-2 Operable Unit (the 300-FF-2 Operable Unit is comprised of 118 accepted waste sites, which are listed in Appendix A of this ROD), April 5, 2001. These sites fall into four general categories: wastes sites in the 300 Area industrial complex; outlying waste sites north and west of the 300 Area industrial complex; general content burial grounds; and transuranic-contaminated burial grounds (including 618-10 and 11 Burial Grounds and associated waste sites).

DOE/RL-96-73, Rev. 1, 324 Building Radiochemical Engineering Cells, High-Level Vault, Low-Level Vault, and Associated Areas Closure Plan, September 1998.

Explanation of Significant Difference for 300-FF-2 OU Record of Decision, May 2004.

C.9.5 Resource Conservation and Recovery Act (RCRA) Permit

There are four RCRA permitted TSD units associated with the 100 and 300 Areas. There are two located in the 100 Area: 105-DR Large Sodium Fire Facility (LSFF), and 1706-KE Treatment Facility; and two located in the 300 Area: 305-B Hazardous Waste Storage Facility, and 325 Hazardous Waste Treatment Facility. They are part of the "RCRA Permit for the Treatment, Storage, and Disposal of Dangerous Waste at the Hanford Facility," Rev. 6, Permit #WA7890008967. The 105-DR LSFF, 305-B HWSF and 325 HWTF are discussed in Part V, Chapter 10 of the permit.

C.9.6 Engineering Evaluation/Cost Analysis (EE/CA)/Removal Actions Work Plans

Reactor 105-D EE/CA - DOE/RL-2000-45 Rev. 0 RAWP DOE/RL-2000-57 Rev. 0.

Reactor 105-DR EE/CA - DOE/RL-98-23 Rev. 0 RAWP DOE/RL-98-37 Rev. 3.

Reactor 105-H EE/CA - DOE/RL-2000-46 Rev. 0 RAWP DOE/RL-2000-57 Rev. 0 .

DOE/RL-98-64, Surveillance and Maintenance Plan for the 100-N Area Deactivated Facilities, November 1998

DOE-RL, 1998c, EE/CA for the 100-N Area Ancillary Facilities and Integration Plan, DOE/RL-97-22, Rev. 1.

DOE-RL-2001-47, 300 Area Remedial Design Report/Remedial Action Work Plan, Rev. 1, Draft B.

DOE-RL-2001-48, Revision 1, 300 Area Sampling and Analysis Plan, Rev. 1, Draft B.

DOE/RL-2002-70, Removal Action Work Plan for 100-N Ancillary Facilities, April 2003

DOE/RL-2003-33, 100-N Ancillary Facilities and 190-DR Building Waste Characterization Sampling and Analysis Plan , December 2003

DOE/RL 2004-43, Rev. 0, Engineering Evaluation/Cost Analysis for the 100-K Area Ancillary Facilities, (Pending – scheduled completion date 9/21/04).

DOE/RL-2004-46, Rev. 0, Engineering Evaluation/Cost Analysis for 105-N Reactor Facility, (Pending - scheduled completion date 10/19/04).

DOE/RL 2004-55, Rev. 0, Engineering Evaluation/Cost Analysis for the Final Configuration of the 105-B Reactor Facility, (Pending – scheduled completion date 9/30/04).

DOE/RL (# TBD), Rev. 0, Engineering Evaluation/Cost Analysis for the 300 Area, (Pending – scheduled completion date 9/30/04).

C.9.7 National Environmental Policy Act (NEPA) Documentation

Decommissioning of Eight Surplus Production Reactors at the Hanford Site Final Environmental Impact Statement, Richland, WA. DOE/EIS-0119F, December 1992. Record of Decision, September 1993 (58 FR 48509) [Note: For the former production reactors, NEPA documentation has been prepared for B, C, D, DR, F, H, KE, and KW Reactors; NEPA documentation has not been prepared for N Reactor].

Disposal of Hanford Defense High-Level, Transuranic and Tank Waste Final Environmental Impact Statement (HDW EIS), Hanford Site, Richland, WA. DOE/EIS-0113F, December 1987. Record of Decision, April 14, 1988 (53 FR 12449) [Note: includes coverage for 618-11 Site].

Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement, Hanford Site, Richland, WA. DOE/EIS-0222F, September 1999. Record of Decision, November 12, 1999 (64 FR 61615). [Note: Sets land uses for entire Hanford Site].

Final Hanford Site Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement (HSW EIS), Hanford Site, Richland, WA, DOE/EIS-0286F, January 2004.

Hanford Reach of the Columbia River, Comprehensive River Conservation Study and Final Environmental Impact Statement (National Park Service, June 1994), Record of Decision, July 1996.

Environmental Assessment on Deactivation of the N Reactor Facilities, Hanford Site, Richland, WA, May 1995. Finding of No Significant Impact (FONSI), May 1, 1995. DOE/EA-0984.

Environmental Assessment on Shutdown of Fast Flux Test Facility, Hanford Site, Richland, WA, May 1995. FONSI, May 1, 1995. DOE/EA-0993.

Environmental Assessment on K Pool Fish Rearing, Hanford Site, Richland, WA, December 1996. FONSI, December 26, 1996. DOE/EA-1111.

Environmental Assessment on Salvage/Demolition of 200W, 200E, and 300 Areas Steam Plants, Hanford Site, Richland, WA, September 1996. FONSI, September 30, 1996. DOE/EA-1177.

Environmental Assessment on Use of Existing Borrow Areas, Hanford Site, Richland, WA, October 2001. FONSI, October 10, 2001. DOE/EA-1403.

Environmental Assessment on Reactivation and Use of Three Former Borrow Sites in the 100-F, 100-H, and 100-N Areas. FONSI, March 7, 2003. DOE/EA-1454.

C.9.8 Other Documents

Hanford Past Practice Strategy (DOE/RL-91-40)

100 Area and 300 Area Component of the River Corridor Baseline Risk Assessment: Basis and Assumptions on Project Scope (DOE/RL-2003-61)

Columbia River Component of the River Corridor Baseline Risk Assessment: Basis and Assumptions on Project Scope (DOE/RL-2004-49)

Risk Assessment Work Plan for the 100 Area and 300 Area Components of the RCBRA (DOE/RL-2004-37, Draft A, June 2004)