Contract Management Plan
for the
Waste Treatment and
Immobilization Plant Project

Contract No. DE-AC27-01RV14136
Bechtel National, Inc.
September 19, 2014
Revision 7

U.S. Department of Energy
Office of River Protection
Hanford Site, Richland WA
**HISTORY: CONTRACT MANAGEMENT PLAN FOR THE WTP PROJECT**

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2001</td>
<td>Rev. 0</td>
<td>• Original</td>
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<tr>
<td>March 2001</td>
<td>Rev. 1</td>
<td>• Various updates</td>
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</table>
| April 2001  | Rev. 2          | • Added footnote to Appendix A stating that Del. 3.10 Design Overviews are to be held “Quarterly” and may not exactly match the dates shown  
• Moved all required dates for C.9.1 Interface Documents out one month to be consistent with practice that the early contract award did not cycle deliverable due dates forward by one month  
• The Appendix B “Timing” dates for small business clauses at FAR 52.219-8 and –9 were modified from “Annually by March 31” to “Semianually by April 30 and Oct 31” to reflect the timing of the semiannual submittal of the Contractor’s Standard Form 294 statistical data  
• The due date for Deliverable 7.2 Quality Assurance Program was changed from April 15, 2001 to April 20, 2001 by 01-OSR-0129 dated April 12, 2001  
• The Appendix A deliverable list rows were re-ordered by due date then deliverable number  
• Change AMSR from Lead Action Owner to Support for Deliverable 3.7 Site Layout Drawings  
• Change the Lead Action Owner for Deliverable 7.4 Dangerous Waste Permit Application Implementation Plan and 7.5 Dangerous Waste Permit Application from AMPD to AMSQ |
| July 2002   | Rev. 3          | • Made minor editorial changes as appropriate, including verb tense to reflect the current time frame  
• References to “Bechtel Washington” throughout were changed to “Bechtel National, Inc.” to better reflect the legal form of the contracting party  
• Updated the Contracting Officer’s Representatives list.  
• Eliminated description of the deliverable milestones due shortly after contract award  
• Added the due date for major schedule Milestone M2 – Start of Cold Commissioning  
• Deleted the Contract Milestone schedule graphic |
<table>
<thead>
<tr>
<th>Date</th>
<th>Revision Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>May 2003</td>
<td>Rev. 4</td>
<td>Deleted ORP organizational responsibilities and incorporated by reference the organizational descriptions found in ORP M 411.1-1 Safety Management Functions, Responsibilities, and Authorities Manual</td>
</tr>
<tr>
<td></td>
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<td>Eliminated the “Transition Period Look Ahead” section to reflect the current point in time</td>
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<td>Updated the invoice and quarterly fee payment sections to reference the applicable ORP Implementing Directives</td>
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<tr>
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<td></td>
<td>Change management is discussed and incorporates by reference ORP N 540.5, WTP Baseline Change Control</td>
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<tr>
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<td></td>
<td>Updated Appendix A Deliverables to reflect due dates that had been changed by contract modifications prior to this Revision 3 Plan date</td>
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<td></td>
<td>Updated Appendix B Clause 1.17 to reflect the deletion of this clause in Contract Modification No. M019</td>
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<tr>
<td>April 2005</td>
<td>Rev. 5</td>
<td>Updated Plan to reflect revised approach to management of WTP project as documented in Project Execution Plan for the River Protection Project Waste Treatment and Immobilization Plant (DOE/ORP-2003-01) (PEP)</td>
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<td>Updated Plan and Appendices A Chronology of Deliverables and B Contract Management and Admin. Actions to reflect revised ORP Organization Structure and changes to the contract through Mod A029</td>
</tr>
<tr>
<td>August 2009</td>
<td>Rev. 6</td>
<td>Updated to reflect incorporation of DOE O 413.3A and DOE M 413.3-1</td>
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<tr>
<td>September 2014</td>
<td>Rev. 7</td>
<td>Updated to reflect EVMS certification requirement</td>
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<td></td>
<td>Updated to reflect Federal Sub-Project Directors (FSPD) and Federal Project Director (FPD)</td>
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<td></td>
<td>Update Contract Management Plan to align with contract</td>
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<td></td>
<td></td>
<td>Update Contract Management Plan to align with contract</td>
</tr>
</tbody>
</table>
Concurrences:

William F. Hamel  
Federal Project Director  
Office of River Protection, (509) 376-8830

Marc T. McCusker  
Procurement Director  
Office of River Protection, (509) 376-2760

Ronnie L. Dawson  
Site Office Contracting Officer  
Office of River Protection, (509) 372-0098

Approval:

John F. Surash  
Head of Contracting Activity  
Office of Environmental Management
MEMORANDUM FOR J. E. SURASH  
HEAD OF CONTRACTING ACTIVITY  
OFFICE OF ENVIRONMENTAL MANAGEMENT  

FROM: BENJAMIN ZASLOW  
CHIEF  
FIELD ASSISTANCE AND  
OVERSIGHT DIVISION  
OFFICE OF CONTRACT MANAGEMENT  
OFFICE OF ACQUISITION AND  
PROJECT MANAGEMENT  

SUBJECT: Contract Management Plan for the Waste Treatment and Immobilization Plant Project (WTP)  

In accordance with Acquisition Guide chapter 71.1, we have reviewed the subject Contract Management Plan for WTP, submitted on March 12, 2015.  

Based upon your submission, approval is provided.  

Please contact Ron Cone at (202) 287-1336 if you have questions related to this matter.  

Cc  
Melissa Rider  
Crandell McDonald
MEMORANDUM FOR MARC T. McCUSKER
DIRECTOR
CONTRACT PROPERTY MANAGEMENT DIVISION
OFFICE OF RIVER PROTECTION

FROM:  J. E. SURASH
HEAD OF CONTRACTING ACTIVITY
OFFICE OF ENVIRONMENTAL MANAGEMENT


The attached subject Contract Management Plan (CMP) for the Waste Treatment and Immobilization Plant Project is approved. Please forward an information copy of the Contract Modification issuing the Fiscal Year (FY) 2015 CMP to Bechtel National, Inc., to EMHCA@em.doe.gov with a copy to myself.

If you have any questions, please contact Mr. Thomas Johnson, Jr., Acting Director, Office of Contract Assistance, at (202) 586-8367.

Attachment
1. Approval Memo from OAPM dated March 17, 2015

cc: Kevin Smith, ORP
    Kenneth Picha, Jr., EM-20
    Thomas Johnson, Jr., EM-50
    Christopher Honkomp, EM-53
    Thomas Johnson, Jr., EM-52 (Acting)
    Angela Parker, EM-52
    Crandell McDonald, EM-52

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May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552), exemption number and category: 4, Commercial/Proprietary
Department of Energy Review required before public release

Name/Org: Thomas Johnson, Jr., EM-52 (Acting) Date: 3/23/2015
Guidance (if applicable): N/A

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LIST OF APPENDICES

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<th>Abbreviation</th>
<th>Definition</th>
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<td>BCP</td>
<td>baseline change proposal</td>
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<tr>
<td>BNI</td>
<td>Bechtel National, Inc.</td>
</tr>
<tr>
<td>BOF</td>
<td>Balance of Facilities</td>
</tr>
<tr>
<td>CD</td>
<td>critical decision</td>
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<tr>
<td>CMP</td>
<td>contract management plan</td>
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<tr>
<td>CMT</td>
<td>Contract Management Team</td>
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<td>CO</td>
<td>contracting officer</td>
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<td>COR</td>
<td>contracting officer representatives</td>
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<td>CPM</td>
<td>contracts and property management</td>
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<td>CPOF</td>
<td>conditional payment of fee</td>
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<td>DNFSB</td>
<td>Defense Nuclear Facilities Safety Board</td>
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<td>DOE</td>
<td>U.S. Department of Energy</td>
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<td>Ecology</td>
<td>Washington State Department of Ecology</td>
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<td>EM</td>
<td>U.S. Department of Energy, Environmental Management</td>
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<td>EPA</td>
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<td>EVMS</td>
<td>earned-value management system</td>
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<td>FAR</td>
<td>Federal Acquisition Regulation</td>
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<td>federal project director</td>
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<td>FSO</td>
<td>field site office</td>
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<td>HFFACO</td>
<td>Hanford Federal Facility Agreement and Consent Order</td>
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<tr>
<td>HLW</td>
<td>high-level waste</td>
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<td>HQ</td>
<td>U.S. Department of Energy, Headquarters</td>
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<td>ICD</td>
<td>interface control document</td>
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<td>Integrated Project Team</td>
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<td>Integrated Safety Management System</td>
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<td>JRMT</td>
<td>Joint Risk Management Team</td>
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<td>KPP</td>
<td>key performance parameters</td>
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<td>LAB</td>
<td>Analytical Laboratory</td>
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<td>LAW</td>
<td>low-activity waste</td>
</tr>
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<td>LBL</td>
<td>Analytical Laboratory, Balance of Facilities, and Low-Activity Waste Facility</td>
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<td>ORP</td>
<td>U.S. Department of Energy, Office of River Protection</td>
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<tr>
<td>ORR</td>
<td>operational readiness review</td>
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<td>PA</td>
<td>property administrator</td>
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<td>PEMP</td>
<td>performance evaluation and measurement plan</td>
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<td>PNNL</td>
<td>Pacific Northwest National Laboratory</td>
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<td>PT</td>
<td>pretreatment</td>
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<td>quality assurance</td>
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<td>QAPD</td>
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ABBREVIATIONS AND ACRONYMS (CONTINUED)

RPP River Protection Project
SAS safeguards and security
SOW statement of work
SSC structure, system, and component
TOC Tank Operations Contract
TPC total project cost
WBS work breakdown structure
WCD Waste Treatment and Immobilization Plant Construction Oversight and Assurance Division
WED Waste Treatment and Immobilization Plant Engineering Division
WPD Waste Treatment and Immobilization Plant Project Controls Division
WTP Waste Treatment and Immobilization Plant
1.0 PURPOSE OF PLAN

The purpose of this Contract Management Plan (CMP) is to provide guidance to U.S. Department of Energy (DOE), Office of River Protection (ORP) employees involved with the management and administration of contract DE-AC27-01RV14136, Bechtel National, Inc., Design, Construction, and Commissioning of the Hanford Tank Waste Treatment and Immobilization Plant (Contract). Such guidance should be a useful tool to help DOE ensure that Bechtel National, Inc. (BNI) and ORP comply with all terms and conditions that govern the Contract. This CMP was developed with the guiding principles that it shall:

- Be a useful tool for administering the Contract
- Be an executive summary of the roles and responsibilities of the contracting parties
- Identify who is responsible for various contract administration activities
- Be flexible and adapt to changing circumstances.

This CMP does not include every action that ORP must take to make the Contract successful. Instead it summarizes the higher-level requirements, deliverables, and tasks necessary and describes the overall process with which the tasks are performed.

It describes the various contract management processes and how they fit together, but does not contain all the step-by-step details of those processes. Familiarization with this CMP and its related links is vital to all ORP employees involved in contract management and each staff member involved in overseeing the Waste Treatment and Immobilization Plant (WTP) Project is required to read the WTP Contract.

1.1 DISCLAIMER

This CMP is intended solely to provide guidance to Government employees and should not be construed to create any rights or obligations on the part of any person or entity, including the contractor and its employees. It is not intended to be either prescriptive or inclusive of all actions necessary to support and/or administer the Contract.

2.0 CONTRACT SUMMARY AND BACKGROUND OF THE SCOPE OF WORK

Contractor Name:  Bechtel National, Inc.
Contract Number:  DE-AC27-01RV14136
Contract Title:  Waste Treatment and Immobilization Plant
Total Contract Value:  Total estimated Contract price is $11,343,510,036 (Mod 331-9/18/14)
Contract Type:  Cost-plus-award-fee with award and multiple fee incentives
Contractor Key Personnel:  Listed in Contract Clause Contract Section J, Attachment F, “Key Personnel” http://www.hanford.gov/files.cfm/M-
The 586-square-mile Hanford Site is located along the Columbia River in southeastern Washington State. Beginning in the 1940s with the Manhattan Project, the Hanford Site played a pivotal role in the nation’s defense with the construction and operations of nine nuclear reactors and five large plutonium processing complexes. Today, the Hanford Site includes numerous former nuclear material production areas, active and closed research facilities, waste storage and disposal sites, and large areas of natural habitat and buffer zones. Under the direction of DOE, the Hanford Site workforce is engaged in the cleanup of contaminated facilities, groundwater, and soils resulting from this period of national defense activities.

Hanford Site cleanup is overseen at DOE Headquarters (HQ) by the Office of Environmental Management (EM) and is directed and implemented locally by two DOE field offices. DOE has two Federal offices at Hanford whose mission is environmental cleanup: DOE Richland Operations Office (RL) and ORP. RL is responsible for nuclear waste and facility cleanup and overall management of the Hanford Site. RL’s mission is to restore the Columbia River corridor and transition the Hanford central plateau. ORP is responsible for cleanup of Hanford Site tank waste. ORP’s mission is to retrieve and treat Hanford’s tank waste and close the tank farms to protect the Columbia River. Each office oversees separate contracts held by private companies. For purposes of the Contract, the land, facilities, property, projects, and work performed and overseen by RL and ORP constitute the “Hanford Site.”

ORP was established in response to Section 3139 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 to manage the River Protection Project (RPP). The RPP includes the safe storage, retrieval, and treatment of tank wastes currently stored in the 200 Area tank farms; construction of a WTP to process and immobilize the tank waste; and associated operations, maintenance, engineering, and construction activities.

The Waste Treatment and Immobilization Plant (WTP) is comprised of five major facilities: Pretreatment, LAW Vitrification, HLW Vitrification, Analytical Laboratory, and the Balance of [Plant] Facilities (BOF). The remaining WTP structures and facilities make up a facility grouping referred to as the Balance of Facilities (BOF).

The WTP Project has an authorized total project cost (TPC) of $12.263 billion and is scheduled to be completed by August 2019 (the MGT-PM-PL-06, Project Execution Plan for the Waste Treatment and Immobilization Plant (WTP) Project) states November 2019; however, the contractual end date is August 2019). Key schedule objectives supporting these commitments include substantial completion of engineering activities in 2013, substantial completion of physical construction in 2016, and final project completion in 2019. Figure 2-1 depicts major elements of the RPP and the relative location of the WTP in relation to tank farm infrastructure and facilities.
Figure 2-1. Waste Treatment and Immobilization Plant and Tank Farms in the 200 West and 200 East Areas (not to scale).

DOE’s integration of the WTP and Tank Farms projects is critical to ensuring successful startup, commissioning, and facility transition of the WTP. Primary goals of this integration are to create a single WTP and Tank Farm Project waste treatment system and to ensure efficient and consistent waste feed during operations.

In addition to the WTP Contract, ORP manages the following major contracts:

- **Analytical Services and Testing Contract** – Provides analysis of highly radioactive samples in support of Hanford Site projects. These services are performed in the 222-S Laboratory complex located in the 200 Area of the Hanford Site.
- **Tank Operation Contract (TOC)** – Furnishes safe, compliant, cost-effective, and energy-efficient services to further the ORP mission to store, retrieve, and treat Hanford tank waste; store and dispose of treated waste; and close the tank farm waste management areas to protect the Columbia River.

Another DOE office in Richland—the Pacific Northwest Site Office, a component of the DOE Office of Science—manages the contract for the Pacific Northwest National Laboratory (PNNL). PNNL is an Office of Science multi-program laboratory that conducts research and development activities, including technology programs related to the Hanford cleanup mission.
2.1 PROJECT MISSION AND STRATEGY

The mission of the WTP Project is to design, construct, and commission a chemical processing plant to treat approximately 56 million gallons of highly hazardous chemical and radiological waste stored in 177 underground tanks at the Hanford Site. The wastes will be separated into HLW and LAW streams, both of which are planned to be immobilized by a vitrification process for disposal. The WTP Project performance baseline includes operating the plant using waste simulants during cold commissioning to demonstrate the ability to achieve waste processing throughput and immobilized waste product acceptance criteria prior to the introduction of radioactive tank waste.

Once WTP operating capability is demonstrated during cold commissioning, the WTP Project will complete operational readiness reviews (ORR) consistent with DOE O 425.1D, Verification of Readiness to Start up or Restart Nuclear Facilities. Project closeout will be initiated after the final Critical Decision (CD)-4, “Approve Start of Operations” for the WTP is received. Following CD-4, the WTP contractor will demonstrate integrated operations of the WTP using radioactive materials and will transition the facility to a WTP post-commissioning contractor who will maintain radioactive WTP operations.

The primary objective of the RPP is to reduce environmental risk from Hanford tank wastes. The WTP Project contributes to that mission by constructing a facility that can safely:

- Separate and treat the radioactive hazardous tank waste into LAW and HLW streams
- Immobilize the HLW fraction for eventual shipment to a national high-level nuclear waste repository
- Immobilize the LAW fraction for onsite disposal.

Rev. 1 of the Project Execution Plan (MGT-PM-PL-06) reflects ongoing consideration of a shift in priorities and implementation of a phased approach to facility construction, startup, commissioning, and turnover. There are three factors influencing the phased approach to facility startup and commissioning. First, a pause in the construction of the PT and HLW facilities to resolve a technical design (seismic) issue in the 2005–2006 timeframe resulted in construction of the LAW Facility, BOF, and LAB (collectively the LBL) being substantially ahead of the PT and HLW facilities. Consequently, LBL construction and startup testing will be completed several years ahead of the remaining facilities.

Second, the WTP Project has maintained its focus on resolving the technical issues for the PT and HLW Facilities, while continuing construction activities on those areas not affected by technical concerns. Thus, the WTP Project would maintain the planned progress on the LBL facilities, and technical issues for the PT and HLW Facilities would be prioritized for resolution first, where appropriate.

Third, the staggered completion of construction may present an opportunity for the WTP Project to conduct cold commissioning and an ORR for the lower hazard category LBL facilities earlier than the 2006 project baseline had established. This could allow plant, equipment, personnel, and program challenges to be recognized sooner, while not on the project critical path. By
overcoming these challenges early and off the critical path, the WTP Project could reduce the risk to the later critical path commissioning programs supporting the PT and HLW facilities. This approach would involve uncoupling the commissioning, ORR, and turnover of each facility; implementing a phased CD-4 process with WTP facility final performance goals achieved sequentially rather than starting all facilities at a single point in time; and beginning operation of the LBL before overall WTP Project completion. A critical element in beginning to treat LAW is securing alignment within EM on the resources required by the Tank Farms Project to provide interim PT and feed-delivery systems that will directly supply the LAW Facility with a suitable waste feed stream, as well as ensuring needed infrastructure services provided by other Hanford contractors.

The detailed work scope for the Contract as outlined in Section C of the Contract includes requirements for the contractor to:

1. Perform the requirements of the Contract, integrating activities with DOE, the tank farms contractor, and other Hanford Site contractors.

2. Be the design authority for the design and engineering of the WTP process and facilities. As such, the contractor shall have authority and responsibility to ensure that the:
   - Design of the WTP facilities complies with all requirements in the Contract, and design requirements identified in approved deliverables and work products specified in Section C.6, “Standards”; Section C.7, “Facility Specification;” Section C.8, “Operational Specifications”; and Section C.9, “Interface Control Documents.”
   - Planned operation of the WTP can achieve the capacity requirements specified in Section C.6, Standard 5, “Commissioning.”
   - The contractor shall identify, quantify, and manage process and facility equipment sizing, technical operating performance, environmental permitting, and the safety authorization basis to achieve the Contract-specified requirements of the WTP.

3. Construct the WTP in accordance with the detailed design, safety basis, pertinent regulations, approved regulatory permits, Section C.6, specified in the Contract and other approved industry standards, as applicable.

4. In cooperation with DOE (as lead), Tank Farms contractor, and the other Hanford Site contractors, establish an interface management process to ensure effective control of technical, administrative, and regulatory interfaces.

5. Support DOE in internal and external communication on the WTP Project with stakeholders, regulators, Tribal Nations, and other special interest groups.

6. Train commissioning staff to operate and maintain the WTP in accordance with DOE O 5480.20A, Change 1 (7-12-01), Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities (M152).

7. Transition the successfully commissioned WTP to the operations contractor.

8. Provide DOE or its designee(s) access to, and the right to, conduct assessments, audits, and/or surveillance of the contractor (and its subcontractors/suppliers, at any level)
records, premises, activities, and of radioactive materials in possession or use related to the WTP, as necessary to effectuate the responsibilities of DOE.

3.0 IDENTIFICATION OF KEY CONTRACT MANAGEMENT TEAM MEMBERS, INCLUDING AUTHORITIES AND LIMITATIONS

ORP is responsible for the management and administration of the Contract. The Contract Management Team (CMT) has the primary responsibility for ensuring the contractor deliver the products and services necessary to support successful program element completion. The CMT will involve other personnel and/or subject matter experts, as necessary.

The CMT may consist of the following members:

- **Contracting Officer (CO):** ORP Contracts and Property Management (CPM)
- **Contracting Officer Representatives (COR):**
  - Office of River Protection Manager
  - Assistant manager
  - Deputy federal project director (FPD), WTP
  - Manager for WTP Startup and Commissioning Integration
  - Office of the Chief Counsel
- **Legal Counsel/Litigation COR:** RL Office of the Chief Counsel
- **Accounting/Finance:** Assistant manager for business and finance
- **Contractor Industrial Relations/Human Resources:** RL Industrial Relations Team
- **Property Administrator (PA):** ORP CPM
- **Certified Reality Specialist:** RL site infrastructure, services, and information management.

3.1 CONTRACT MANAGEMENT TEAM COORDINATION

Successful management and administration of the Contract by the CMT requires the coordinated efforts of a variety of ORP, RL, WTP HQ Program IPT, and HQ personnel. Personnel include, but are not limited to, the ORP Manager and senior staff, technical support staff, subject matter experts, and other Hanford Site CMTs. It is the CMT’s responsibility to involve these personnel, as necessary, for Contract administration. This CMP delineates the roles and responsibilities of these team members and describes their interaction on key Contract administration duties in accordance with MGT-PM-PL-02, *Safety Management Functions, Responsibilities, and Authorities (FRA) for the U.S. Department of Energy, Office of River Protection.*

The following sections describe the roles, responsibilities, authorities, and limitations for CMT members.
3.1.1 Office of River Protection Manager

The ORP Manager establishes policies, requirements, and procedures for execution and management of the ORP site office, including strategic/long-term planning and direction. Specific responsibilities associated with the WTP Project include:

- Ensuring all activities within the RPP are integrated to best accomplish the ORP mission, including ensuring waste feed delivery and handling system delivery requirements are aligned with WTP Project requirements
- Providing management systems for nuclear safety, environmental permitting, quality assurance (QA), and other functions necessary for effective oversight and management of the WTP Project
- Ensuring ORP resources are appropriately allocated and managed for effective and efficient oversight and management of the WTP Project
- Approving all documentation as delegated by the Assistant Secretary for EM (e.g., documented safety analysis, QA plan)
- Ensuring the people, programs, and process facilities needed to support and operate the WTP facilities will be available and functioning when needed
- Acting as the designated fee determining official and approve the CO to modify the contract fee structure and contract value in accordance with Federal statutes and regulations and DOE fee policy.

3.1.2 Waste Treatment and Immobilization Plant Federal Project Director

The WTP FPD manages Federal actions needed to complete the WTP Project, including successful completion of ORRs and CD-4 approval decisions.

Key responsibilities of the WTP FPD are to:

- Overseeing project planning, execution, and management of the WTP Project
- Designing, constructing, and commissioning the WTP consistent with environmental, safety, security, and quality requirements defined by contract, public law, regulations, and executive orders
- Serving as the primary COR
- Coordinating with the Tank Farms Project FPD to integrate waste feed delivery and waste handling activities to support commissioning and transition to operations
- Coordinating with RL for site activities that support the WTP Project
- Establishing performance criteria to be included in the semiannual performance evaluation and measurement plan so that it can be modified into the contract
- Working with the CO to process any contract modification resulting from a project baseline change that affects the cost, schedule, or scope of the contract.
3.1.3 Integrated Project Team

Members of the Integrated Project Team (IPT) are accountable to the WTP FPD to effectively plan, execute, and implement DOE capital asset acquisition processes and to successfully transition the WTP to operations.

Key responsibilities of the IPT are as follows:

- Maintaining real-time awareness of the status of the project related to their IPT membership role
- Ensuring the IPT is aware of project-related issues identified by their functional manager and functional managers are aware of issues identified by the IPT
- Maintaining integrated safety management performance
- Eliminating barriers to efficient and cost-effective project management processes
- Reporting status on actions assigned by the subproject FPD, including those actions where resolutions are scheduled and steps are being taken to resolve pending issues
- Providing early identification and recovery strategy when performance problems occur
- Integrating facility and shared services activities into the overall WTP Project
- Managing project progression through the CD process
- Ensuring all essential interfaces are identified, described/defined, and are being managed
- Reviewing and assessing project performance against established performance metrics, baselines, milestones, and deliverables
- Planning and participating in external project reviews, audits, and appraisals
- Recommending approval of all performance baseline changes to interface control documents, feed characteristics, product specifications, and future operations activities
- Performing design, construction, and operability oversight within assigned areas or respective facilities
- Providing QA oversight
- Ensuring that radiological, nuclear, and process safety, including nonradiological worker safety and health requirements for the project are met
- Performing reviews (and where required, engaging other contractors) of BNI environment, safety, health, and quality actions for compatibility and integration with sitewide environment, safety, health, and quality’ activities
- Confirming contract requirements are met
- Inspecting and recommending acceptance of the facility and deliverables
- Identifying the need for outside expertise to supplement IPT resources on specific activities that are complex or highly technical and seek FPD agreement to obtain these resources.
3.1.4 Integrated Change Control Board

The integrated Change Control Board is established to review and approve/disapprove baseline change proposals (BCP) submitted to ORP for formal DOE approval. The Change Control Board is coordinated by the Federal project staff.

Representation at the Federal change control board meeting includes as a minimum:

- FPD or designee
- WTP CO
- Subproject FPDs
- WTP Project Controls Division (WPD) Director
- WTP Startup and Commissioning Integration representation (if BCP impacts startup and commissioning work scope
- WTP Change Control Manager
- Subject matter experts as appropriate.

3.1.5 Contracting Officer

A CO is the only individual with the authority, as warranted by the head of contracting activity, to award the basic contract, make contract changes, and/or terminate contracts. Only the CO may bind the government within the limits of their authority, as delegated to them in writing by agency head or designee (FAR 1.602-1). Pursuant to clause H.2, “Modification Authority,” the CO is the only authorized individual to accept nonconforming work, waive any requirement of the contract, or modify any term or condition of the contract.

3.1.6 Contracting Officer Representative

Responsibilities of a COR include providing technical direction to the contractor within the scope of their delegated authority and assist the CO in performing contract management, performance oversight, and contract administration activities with support from the appropriate field site office (FSO) management and staff. The COR assists with technical monitoring and administration of a contract and serves as a technical liaison between the contractor’s management and CO. The COR may not make changes/agreements that result in increased costs to the contractor or make changes to the terms of the contract. The COR is responsible for providing technical direction to the contractor in accordance with clause H.1, “Technical Direction.” All COR correspondence will be permanently stored, traceable, and retrievable through the electronic project records Integrated Data Management System. The CO issues a written designation letter to the COR that specifies the extent of the COR’s authority to act on behalf of the CO (a list can be found on Hanford.gov at http://www.hanford.gov/page.cfm/ORPContractingOfficerRepresentatives).
3.1.7 Waste Treatment and Immobilization Plant Project

3.1.7.1 Waste Treatment and Immobilization Plant Deputy Federal Project Directors

One deputy FPD is identified within the WTP organization. The deputy FPD reports directly to the WTP FPD and supports the supervision of staff responsible for ensuring the safe, effective, and efficient completion of the WTP Project. The deputy FPD is responsible for the following:

- Providing direction, planning, integrating, and analyzing the WTP Project scope, schedule, and cost elements of the project baseline
- Ensuring operational oversight and management of the policies and processes supporting project and field operations
- Acting as the principal Federal technical and operational point of contact to lead internal problem-solving activities across the WTP Project
- Acting as the authoritative source for decisions and guidance dealing with changes in project performance objectives
- Acting as alternate COR (as delegated) to provide technical direction to the contractor; serve as interface for the WTP Project with HQ, regulators, and stakeholders, as well as the Tank Farms Project.

3.1.7.2 Subproject Federal Project Directors

Subproject Federal Project Directors support the WTP FPDs and manage the technical oversight of contract requirements for the WTP Project’s major subprojects as shown in Table 3-1. Each Subproject FPD leads an IPT composed of support staff from several disciplines, including engineering, operations, environmental, safety, and project controls. Subproject FPDs report to the WTP FPD. Their responsibilities extend through startup and turnover of their respective facilities.

Table 3-1. Responsibility Assignment Matrix for Subproject Federal Project Directors

<table>
<thead>
<tr>
<th>Subproject FPD/IPT Designation</th>
<th>Included Work Scope</th>
<th>Work Breakdown Structure Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretreatment</td>
<td>Pretreatment Facility</td>
<td>1.01</td>
</tr>
<tr>
<td>High-Level Waste</td>
<td>High-Level Waste Facility</td>
<td>1.03</td>
</tr>
<tr>
<td>Low-Activity Waste</td>
<td>Low-Activity Waste Facility</td>
<td>1.02</td>
</tr>
<tr>
<td>BOF/LAB</td>
<td>Balance of Facilities</td>
<td>1.05</td>
</tr>
<tr>
<td>Shared Services</td>
<td>Analytical Laboratory</td>
<td>1.06</td>
</tr>
</tbody>
</table>

BOF = Balance of Facilities.
FPD = Federal project director.
IPT = Integrated project team.
LAB = Analytical Laboratory.
Subproject FPD responsibilities include:

- Monitoring performance of design, construction, startup, commissioning, and ORRs for their respective facility through all WTP Project lifecycle phases
- Managing the facility scope, cost, and schedule elements of the project baseline, understanding the reasons for variances, and ensuring appropriate mitigation or corrective action is taken
- Ensuring that trends and potential baseline and contract changes are identified early, are beneficial to the facility, and are communicated to the WTP FPD and/or CO, as appropriate
- Maintaining awareness of the authorization basis and the process for changes and reviews and making recommendations regarding approval of authorization basis changes
- Managing risk and supporting the risk management process by ensuring early risk identification, assessment, and mitigation throughout the project lifecycle
- Chairing the facility-specific IPT and managing IPT resources
- Reviewing BNI inspection documents, test criteria, and commissioning procedures
- Ensuring that tests are adequate to achieve design validation and test results meet design requirements
- Integrating with other Subproject FPDs on common issues and facility-to-facility interfaces
- Reviewing BNI requests for equitable adjustment (REA) and recommendations for disposition to the WTP FPD and CO.
- Developing scopes of work for necessary contract changes and ensuring that Independent Government Cost Estimates are developed for those scopes of work.

3.1.7.3 Waste Treatment and Immobilization Plant Staff Organizations

The WTP Engineering Division (WED) supports the WTP Project and Subproject FPDs by overseeing the contractor’s engineering programs, processes, and products through design, procurement, construction, systems testing, startup, and commissioning to ensure the plant will perform as intended and within its authorization basis. WED staff provides technical support to permit and approve authorization basis change processes. WED staff includes facility area engineers, facility discipline engineers, safety system oversight engineers, and other subject matter experts.

The WTP Construction Oversight and Assurance Division (WCD) supports the WTP Project and Subproject FPDs by overseeing construction work ensuring facilities are constructed as designed and ensuring work is performed in compliance with occupational health and safety requirements. WCD staff oversee startup and acceptance testing, operability testing, readiness reviews, commissioning, and transition to operations activities. The WCD role includes oversight of construction management practices related to cost, schedule, efficiency, and constructability.
The WPD supports the WTP Project and Subproject FPDs by establishing uniform project control and reporting policies, requirements, and procedures necessary to provide DOE management and WTP staff with accurate and reliable management information for informed decision making. This WPD establishes and maintains effective project management systems, provides baseline execution oversight for programmatic compliance, evaluates project performance, manages risk, and establishes integrated project management and control systems.

All other FSO staff support and assist the WTP CORs and CO as specifically designated and/or as defined in employee position descriptions, FSO processes and procedures, and as stated herein.

3.1.8 U.S. Department of Energy, Office of River Protection Office Support Organizations

3.1.8.1 Technical and Regulatory Support

The Office of Technical and Regulatory Support is responsible for establishing and providing oversight of criticality safety, and nuclear safety programs for the WTP Project, including establishing the requirements and procedures for and compliance with safety basis documents. This division integrates engineering, criticality safety, and nuclear safety activities across all RPP scope as a basis for authorization of a fully operational system. Technical and Regulatory Support is also responsible for oversight of programs for compliance with applicable laws, standards, regulations, and permits to protect the environment, workers, and the public. The division is responsible for oversight of programs and management systems associated with radiological protection, worker health and safety, accident investigation, and employee concerns. It includes the QA Team, the Nuclear Safety Division, the Safety and Health Division, and the Environmental Compliance Division.

3.1.8.2 Office of the Chief of Staff

The Office of the Chief of Staff manages communications with internal and external stakeholders.

3.1.9 U.S. Department of Energy, Office of River Protection Integrated Project Teams, Technical Support Staff, and Subject Matter Experts

The WTP CMT relies on input from technical support staff, facility representatives, and subject matter experts from other ORP organizations to ensure the contractor delivers the products and services that help meet program objectives as defined in the statement of work (SOW). These individuals support the CMT and are not authorized to perform any function that results in/or appears to change the scope, price, terms, or conditions of the contract.
3.1.10 U.S. Department of Energy, Office of River Protection Office Support Organizations

3.1.10.1 Legal Counsel/Litigation Contracting Officer Representative

The legal counsel/litigation COR has primary responsibility for providing technical direction related to the area of litigation management and legal policy.

Legal counsel shall advise the CO on applicable contract administration tasks, as follows:

- Contract modifications (except funding and other noncomplex modifications – e.g., key personnel changes, administrative changes, etc.)
- Contract administration issues that involve legal matters (e.g., contract interpretation, contract law, REAs, change orders, claims, property matters, labor law issues, etc.)
- Litigation management and legal policy
- Other issues as determined necessary by the CO.

3.1.10.2 Industrial Relations/Human Resources

The Contractor Industrial Relations Team provides the following support to ORP:

- Administers the RL/ORP workforce restructuring program
- Monitors Hanford labor relations programs and reviews/coordinates economic bargaining parameters
- Serves as a member of the Labor Standards Board for review and approval of plant force work reviews
- Oversees and approves the RL/ORP prime contractors’ personnel appendices
- Oversees the third-party administration of Hanford Site contractor workers’ compensation claims
- Provides lead oversight of the pension and benefits plans for Hanford Site contractors
- Reviews all Davis Bacon items as noted in FAR 22.403-1.

Some of these listed industrial relations functions are not applicable to the WTP Contract since DOE O 350.1, Contractor Human Resource Management Programs, is primarily applicable only to site facility management contracts. Implementing procedure CPM-AAM-IP-11, Contractor Industrial Relations, outlines the process that is followed in administering the contractor industrial relations provisions.

3.1.10.3 Certified Realty Specialist

The RL certified realty specialist provides the review and internal approvals required to acquire, lease, manage, and dispose of real property. The specialist provides all approvals and recommendations to the WTP CO. Applicable regulations and guidance include the following:

- 41 CFR, 102, “Federal Management Regulations”
- Contract Clause I.96 - DEAR 952.217-70, “Acquisition of Real Property”
- DOE O 430.1B, Real Property Asset Management

In accordance with DEAR 952.217-70, only the CO can provide approval of real estate actions to the contractor.

3.1.10.4 Assistant Manager for Business and Finance

The assistant manager for business and finance is responsible for:

- Monitoring the contractor’s accounting system for evidence of a maintained job order costing system and a billing system that demonstrates costs are accumulated and allocated consistently and are properly classified
- Executing procedures, policies, and programs related to budgeting, accounting, financial review, and financial analysis activities; invoice reviews; and audit liaison/tracking
- Coordinating with the contractor and ORP line organizations for budget preparation and tracking
- Providing funds control for all ORP funds
- Analyzing baseline planned costs versus monthly actuals to monitor burn rate.

3.1.11 Other Contract Administration Parties

The WTP CMT will work in coordination with other CMTs in both ORP and RL, along with the Defense Contract Audit Agency to ensure coordinated contract administration practices are followed across the Hanford Site. These organizations provide industrial relations and contract audit functions.

Defense Contract Audit Agency under the authority, direction, and control of the Under Secretary of Defense (Comptroller), is responsible for performing contract audits for DOE, and providing accounting and financial advisory services regarding contracts and subcontracts for ORP contract administration activities. These services are provided in connection with negotiation, administration, and settlement of contracts and subcontracts.
3.1.12 Key Stakeholders and Major Interfaces

Successful execution of the WTP Project requires accurate and timely communication among the WTP Project, its contractors, external regulators, and external oversight groups. These interfaces include the following:

- **Contractors:** The critical interfaces for the WTP Project mission success are those between the DOE and its contractors and the contractors with each other, particularly those involving engineering and technical requirements.

- **Defense Nuclear Facilities Safety Board (DNFSB):** The interface procedure for DOE organizations and the DNFSB is described in DOE M 140.1-1B, *Interface with the Defense Nuclear Facilities Safety Board.*


- **Federal and State environmental regulatory entities:** The EM policy for negotiating and approving environmental compliance and cleanup agreements is delineated in TRS-EM-IP-06, *Change Control Process for the Tri-Party Agreement.* ORP support organizations maintain liaison with Washington State, the Washington State Department of Health, Washington State Department of Ecology (Ecology), and the U.S. Environmental Protection Agency (EPA). Although not a regulatory interface, liaison also is maintained with the State of Oregon as a key stakeholder in protecting the Columbia River.

- **ORP and local and state officials, public interest groups, the public, and Tribal Nations:** Official communications with stakeholders, the public, Tribal Nations, the Hanford Advisory Board, and other external organizations are typically formal in nature. Ongoing, working-level communications may be more informal and can be used to communicate project information and enable the early identification and resolution of issues. Communications are documented through meeting minutes, correspondence, responses to advice and recommendations, memoranda of understanding, and/or emails. Communications are handled in accordance with the RL Integrated Management System processes.

4.0 CONTRACT MANAGEMENT PROCESSES

4.1 CONTRACT COMMUNICATION PROTOCOL

4.1.1 Formal Communications with the Contractor

All formal direction to the contractor is issued by the CO or the COR within their designated authority. Such direction should be in writing, but may be provided orally in meetings, briefings, telephone, or video conferencing. A written record of direction should be created for such oral...
directions. All formal written correspondence to the contractor should include the contract number within the subject line. Correspondence will include the following statement, where applicable:

The Government considers this action to be within the scope of the existing Contract, and therefore the action does not involve or authorize any delay in delivery or additional cost to the Government, either direct or indirect.

The following caveat should be included within the body of correspondence issued by CORs:

This letter is not considered to constitute a change to the Contract. In the event the Contractor disagrees with this interpretation, it must immediately notify the Contracting Officer orally, and otherwise comply with the requirements of the Contract clause entitled 52.243-7, “Notification of Changes.”

At a minimum, a WTP Deputy FPD must concur on all correspondence to the contractor, and both the representative and the CO must receive a final copy when issued. Only the CO has the authority to interpret contract terms and conditions or make changes to the contract.

To ensure correspondence control, all formal correspondence should be addressed to the contractor’s local principal executive, and cite the contract number and applicable contract provision and/or government-furnished services/information item number in the letter’s subject line. Formal communication from the contractor should follow a formal contract correspondence tracking system with commitments appropriately assigned and tracked for timely completion.

4.1.2 Informal Communications with the Contractor

Informal communications can occur between an ORP employee and any contractor employee. This type of communication is nonbinding for both the Government and the contractor and does not constitute contract direction (i.e., formal communication). Informal communication can take the form of electronic mail, retrievable databases, telephone, facsimile, presentations, meetings, and other means.

Informal communications between ORP and contractor staff are needed for proper oversight coordination. This communication should be constructive in nature. Avoid requesting information obtainable by other means. In their informal communications, ORP employees need to avoid the impression that the communications are formal. Particularly, when COs or CORs are engaging in informal communications, they must be careful to identify those communications as nonbinding. CORs should inform the contractor as to whether the communications or portions thereof are formal or informal.

4.1.3 Non-Office of River Protection Communications

The contractor will be required to communicate with other than ORP staff in conjunction with its responsibilities and work scope. The parties most likely to be involved are HQ; other Federal agencies and offices, including the EPA, Government Accountability Office, and DNFSB; other Hanford contractors; Hanford Advisory Board; state agencies and officials, including the Ecology and Washington State Department of Health; Tribal Nations; and the general public.
Because these entities exist outside the contractual relationship between the contractor and ORP, their communications to the contractor may not be construed as contractual direction to change the scope or terms and conditions of the contract. It is expected; however, that these “stakeholder” communications will be coordinated and/or monitored by the CO and COR.

4.2 GOVERNMENT-FURNISHED SERVICES/INFORMATION REVIEW PROCESS

Review of requests for government-furnished services/information review will be accomplished in accordance with typical government-furnished services/information and include ORP approval of contractor submittals, such as authorization basis and regulatory decision documents and reports, and approval of management products and controls deliverables.

4.3 CONTRACT DELIVERABLES

Various deliverables are required during Contract performance. Contract Section C.5, “Description of Contract Requirements and Deliverables,” and Table C.5-1.1, “Deliverables,” denote the item number, deliverable reference, action required, DOE action party, point of delivery, and contract due date for each deliverable. Attachment A to this CMP shows contract deliverables identified in table C.5-1.1.

See Attachment A for a complete listing of contract deliverables.

4.3.1 Deliverable Review Timeframes

ORP actions will be accomplished in accordance with the timeframes listed in Section C.5 (g) of the WTP Contract. Unless otherwise stated in Table C.5-1.1, DOE will provide written comments to the contractor within 30 days of receipt of the deliverables identified in Section C, “Statement of Work” of the WTP Contract. If requested in writing by the COR, the contractor shall address all DOE mandatory comments and resubmit the deliverable within 30 days after receipt of DOE comments. Where necessary, separate deliverable review plans will be developed for a particular deliverable. FPD review responsibilities are provided in Appendix A to this plan. The timeframe for ORP action will not begin (the clock will not start to run) until an acceptable item is received by the appropriate personnel. For those items that have already been rejected, the timeframe for action will begin again (clock will restart at zero) upon receipt of the resubmittal. For partially rejected items, review of the acceptable portion(s) of the submittal will continue pending the receipt of necessary revisions or corrections. However, for purposes of contract timeframes, the clock will not restart until all necessary revisions and corrections are received.

The only way in which a specific deliverable can be modified is through a CO letter or formal contract modification. As with other contracting changes, only those changes agreed to in writing by the CO are binding.

4.4 METHOD FOR MONITORING PERFORMANCE-BASED OBJECTIVES

Various ORP organizational elements have contract management responsibilities and ownership for actions associated with the WTP Contract. The MGT-PM-PL-02 establishes these key responsibilities.
Monitoring of performance-based objectives and performance-based acquisition QA surveillance requirements are met, but not limited to, the following guidance:

- Performance Evaluation and Measurement Plan (PEMP)
- Section C, Standard 1, "Management Products and Controls"
- ORP Management System processes.

4.5 INVOICE PAYMENTS FOR COST AND FEE

Under Contract Clause L19B FAR 52.216-7, "Allowable Cost and Payment," the contractor is allowed to submit public vouchers for progress payments twice per month (on the first Federal business day on or after the fifth and 22nd, with the exception of February when the contractor can submit invoices on the fifth and 21st). The amounts claimed must be allowable in accordance with FAR Subpart 31.2, "Contracts with Commercial Organizations," and the invoices shall provide reasonable and sufficient detail of the claimed cost.

Invoice processing is to be performed biweekly in accordance with Clause G.4, "Billing Instructions" and Clause L.68 "FAR 52.232-25, Prompt Payment," which requires payment within seven days of submittal of an approved invoice. Specific procedures for the contractor's invoice payments are provided in CPM-AAM-IP-21, Review of Contractor Invoices. As outlined in CPM-AAM-IP-21, the procedures used will provide reasonable assurance that the contractor has provided the goods and services being billed in accordance with contract terms and that goods and services are necessary and costs are allowable. A two-phased invoice review process will be used. The first phase will be a preliminary review of key cost indicators sufficiently summarized to support conditional approval of prepayment, followed by a second-phase, which will be a thorough and detailed post-payment invoice review. An invoice review checklist will be completed by the ORP-Subproject FPDs and the RL Finance Division prior to CO approval. All items reviewed should be clearly noted; background or reference material acknowledged; documentation provided; and a determination, using the specified attachments to the procedure or other formal documentation methods. When a cost element is questioned during a review, the burden is placed on the contractor to demonstrate that the cost was proper, reasonable, and accurate. Sufficient detail of the review must be provided by use of templates, checklists, and other support documentation for external review to understand the invoice and contract in reference, the level of review, specific examination criteria, and to be able to clearly identify the end state determination of acceptability for payment processing or rejection.

4.6 FEE ADMINISTRATION

The DOE objective under the WTP Contract is to receive a completed WTP that meets or exceeds the contractual performance requirements. Incentives are structured to ensure a strong financial motivation for the WTP Contractor to achieve DOE goals for project cost, schedule, and operational performance.

To achieve this objective, the WTP Contract has five incentive fee elements as shown in Tables 5-1 and 5-2.
Table 4-1. Contract Incentive Fee Elements.

<table>
<thead>
<tr>
<th>Fee Component</th>
<th>Acceptance Criteria Specified In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive Fee A – Final Fee Determination for Work Prior to Modification No. A143</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Incentive Fee B – Award Fee</td>
<td>Semiannual performance evaluation and measurement plan</td>
</tr>
<tr>
<td>Incentive Fee C – Milestone and Schedule Incentive Fee</td>
<td>Milestone Definition Sheets</td>
</tr>
<tr>
<td>Incentive Fee D – Operational Incentive Fee</td>
<td>Contract Sections B and C</td>
</tr>
<tr>
<td>Incentive Fee E – Enhancement Incentive Fee</td>
<td>Contract Section B</td>
</tr>
</tbody>
</table>

Table 4-2. Waste Treatment and Immobilization Plant Incentive Fee Structure. (2 pages)

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Fee Type</th>
<th>Performance Measure(s)</th>
<th>Fee Administration Terms and Condition Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Final Fee Determination for Work Prior to Mod. No. A143</td>
<td>Fixed</td>
<td>Determined by contracting officer</td>
<td>Clause B.6, Attachment B-2-A</td>
</tr>
<tr>
<td>B</td>
<td>Award Fee:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.1 Award Fee – Protect Management Incentive</td>
<td>Award</td>
<td>Performance measures in PEMP</td>
<td>Clause B.7, Attachment B-2-B &amp; PEMP</td>
</tr>
<tr>
<td></td>
<td>B.2 Award Fee – Cost Incentive</td>
<td>Award</td>
<td>Performance measures in PEMP</td>
<td>Clause B.7, Attachment B-2-B &amp; PEMP</td>
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<tr>
<td></td>
<td>B.3 Award Fee – REA Settlement</td>
<td>Award</td>
<td>Completion of specified Milestones</td>
<td>Clause B.6, Attachment B-2-C &amp; PEMP</td>
</tr>
<tr>
<td>C</td>
<td>Schedule Incentive Fee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C.1 Activity Milestone Completion</td>
<td>PBI</td>
<td>Completion of specified Milestones</td>
<td>Clause B.6, Attachment B-2-C &amp; PEMP</td>
</tr>
<tr>
<td></td>
<td>C.2 Facility Milestone Completion</td>
<td>PBI</td>
<td>Completion of specified Milestones</td>
<td>Clause B.6, Attachment B-2-C &amp; PEMP</td>
</tr>
<tr>
<td>D</td>
<td>Operational Incentive Fee</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>D.1 Cold Commissioning</td>
<td>PBI</td>
<td>Capacity</td>
<td>Clause B.6, Attachment B-2-D; Section C, Standard 5, Table C.6-5.1</td>
</tr>
</tbody>
</table>
Table 4-2. Waste Treatment and Immobilization Plant Incentive Fee Structure. (2 pages)

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Fee Type</th>
<th>Performance Measure(s)</th>
<th>Fee Administration Terms and Condition Reference</th>
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<tr>
<td>D.2</td>
<td>Hot Commissioning</td>
<td>PBI</td>
<td>Capacity</td>
<td>Clause B.6, Attachment B-2-D; Section C, Standard 5, Table C.6-5.2</td>
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<tr>
<td>E</td>
<td>Enhancement Incentive Fee</td>
<td></td>
<td></td>
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<tr>
<td>E.1</td>
<td>Enhanced Plant Capacity</td>
<td>PBI</td>
<td>Plant Capacity</td>
<td>Clause B.6, Attachment B-2-E</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Exceeding Treatment Capacity</td>
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<tr>
<td>E.2</td>
<td>Sodium Reduction</td>
<td>PBI</td>
<td>Metric Tons Sodium Reduced</td>
<td>Clause B.6, Attachment B-2-E</td>
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<td></td>
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<td>E.3</td>
<td>Enhanced Plant Turnover</td>
<td>PBI</td>
<td>Reduced Plant Turnover Period</td>
<td>Clause B.6, Attachment B-2-E</td>
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<tr>
<td>E.4</td>
<td>Sustained Production</td>
<td>PBI</td>
<td>Post-Turnover Operations Capacity</td>
<td>Clause B.6, Attachment B-2-E</td>
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<tr>
<td></td>
<td>Achievement</td>
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</table>

PBI = performance based incentives.
PEMP = performance evaluation and measurement plan.
REA = request(s) for equitable adjustment.

The incentive fee elements are discussed in summary form below, with specific implementing details provided in Section B, “Supplies or Services and Prices/Costs” and the WTP PEMP. Each fee incentive element is calculated independently of the others. Contract management processes for each major fee element are described in the WTP Contract as follows:

- **Incentive A – Final Fee Determination for Work Prior to Modification No. A143:** The final fee determination for all performance prior to Modification No. A143 is $102,622,325. It was necessary to finalize the fee earnings at the time of Modification No. A143, which changed the Contract type from cost-plus incentive fee to cost-plus award fee.

- **Contract Management Requirement(s) for Incentive A:** None. This amount has been paid in its entirety prior to Modification No. A143 and no further Contract management actions are required.

- **Incentive B – Award Fee:** From calendar year 2009, through and including calendar year 2019, award fee is available for earnings addressing two major performance objectives – B.1, “Project Management” and B.2, “Cost.” The award fee periods are six-months in duration.

- **Contract Management Requirement(s) for Incentive B:** Award fee may be earned by achieving performance objectives set forth in the semiannual WTP PEMP. Prior to the
beginning of each award fee period, the CO and contractor shall enter into negotiation of the requirements to be set forth in the PEMP. In the event the parties fail to agree on the requirements and the evaluation areas, a unilateral determination will be made by the CO prior to the beginning of the evaluation period. The PEMP will set forth performance objectives, performance elements, and performance measures for the period. Refer to the PEMP and CPM Procedure AMD-CE-IP-01, R1 Award Fee Administration for Waste Treatment Plant Contract, for specific detailed processes used to manage and administer award fee: B.2, “Facility Milestone Completion Incentive” and C.3, “REA Settlement Fee.”

- **Incentive Fee C – Schedule Incentive Fee:** The schedule incentive fee consists of two elements:
  
  - **C.1, “Activity Milestone Completion Incentive”**
    
    **Contract Management Requirement(s) for Incentive C.1:** Contract Section B lists 60 activity completion milestones that are earned and payable upon successful completion (see Contract Section B, Attachment B-2-C, “Incentive Fee C – Schedule Incentive Fee”; C.1 “Activity Milestone Completion”; and Contract Section J, “List of Attachments,” Attachment P). Schedule dates shown therein are only target dates and are based upon late finish schedule dates for each activity. These milestones are not time-dependent. The fee will be earned and payable when the CO determines the milestone has been completed in accordance with the Activity Milestone Definition Sheets set forth in Section J, “List of Attachments,” Attachment P, “Completion Definition Sheets for Incentive Fee,” C.1, “Activity Milestone Completion Incentive.” These sheets contain milestone definitions, inclusions, exclusions, key predecessor activities, and objective evidence of milestone completion. Refer to CPM Procedure CPM-CE-IP-02, R1, Activity Milestone Fee Administration for Waste Treatment Plant Contract, for specific detailed processes used to manage and administer activity milestone completion incentive fee. The procedure utilizes an Activity Milestone Completion Validation Form to be completed by the FPD and approved by the CO validating and verifying that all inclusion, key predecessor activity, and objective evidence of completion requirements were met.

  - **Contract Management Requirement(s) for Incentive C.2:** Contract Section B lists eight facility completion milestones that are earned and payable upon successful completion (see Contract Section B, Attachment B-2-C, “Incentive Fee C – Schedule Incentive Fee” and Contract Section B, C.2, “Facility Milestone Completion”). Schedule dates shown therein are based upon late finish schedule dates for each facility. These milestones are time-dependent. The fee will be earned and payable when the CO determines the milestone has been completed in accordance with the Facility Milestone Definition Sheets. These sheets contain milestone definitions, inclusions, exclusions, key predecessor activities, and objective evidence of milestone completion. Because these milestones do not occur until 2012 or later, applicable inclusions, exclusions, key predecessor activities, and objective evidence of milestone completion will be developed at a later date and incorporated into the Contract.

- **Contract Management Requirement(s) for Incentive B.3:** Payment of fee for REA settlements will be specified in the Contract modifications that definitize the REAs.
• **Incentive Fee D – Operational Incentive Fee:** Operational incentive fee is earned (in specified amounts) and payable upon the COs determination of the contractor’s achievement of prescribed performance testing rates for commissioning as described in Contract Section B, Attachment B-2-D, “Incentive Fee D – Operational Incentive Fee,” and applicable portions of Contract Section C.6, Standard 5, “Commissioning”: (e) Cold Commissioning, (3) Testing, (ii) Cold Commissioning Capacity Tests; and (g) Hot Commissioning, (4) and (5) Hot Commissioning Capacity Tests. Achievement of each milestone is independently measured and earned.

• **Incentive Fee E – Enhancement Incentive Fee:** Enhancement incentive fee contains four fee elements designed to reduce life-cycle operating costs of WTP: (i) Enhanced Plant Capacity; (ii) Sodium Reduction; (iii) Enhanced Plant Turnover; and (iv) Sustained Production Achievement. Details for these subelements are provided in Contract Section B, Attachment B-2-E, “Incentive Fee E – Enhancement Incentive Fee.” Enhanced incentive fee is earned and payable upon the COs determination of the contractor’s achievement of prescribed requirements.

• **Conditional Payment of Fee (CPOF):** Contract contains a modified version of the DOE CPOF Clause in effect at the time of contract award in December 2000. The Contract puts at risk the total earned award fee payment for B.1, “Project Management Incentive” and B.2, “Cost Incentive” during the six-month award fee period in which an environmental, safety, quality, and health or catastrophic incident occurred. Any fee reduction decisions are at the sole discretion of the ORP Manager, and subject to EM internal policies on CPOF fee reduction to ensure equity and consistency across the EM complex.

### 4.7 CONTRACT CHANGE CONTROL PROCESS

There is a direct correlation between the WTP Contract estimated cost and fee and the contractor’s project performance measurement baseline. The contractor’s project performance measurement baseline total cost, plus management reserve and fee, equals the contract total estimated price.

Changes to the project performance measurement baselines or the receipt of a revised baseline from the contractor, does not constitute a contract change or a change proposal. ORP COs are not authorized to modify a contract’s estimated cost and fee/price or contractually required delivery dates/schedules based on a contractor’s initial or revised project performance measurement baseline, even if the baseline has been validated by ORP’s CPM Division. In addition, a validated contractor project performance measurement baseline does not remove the CO's responsibility for evaluating and negotiating outstanding contract changes and REAs, even if the contractor may have accounted for these items in the revised baseline. All changes, to include request for equitable adjustments, are processed in accordance with CPM-AAM-IP-14, Processing Change Orders and Requests for Equitable Adjustments.

Contract changes to the performance measurement baseline that impact the cost, schedule, and/or SOW require identification and require resolution through the WTP CO via modification. The
FPD/Subproject FPD shall prepare an interoffice memo to the CO stating the necessity for change, justification for change, and include an independent Government cost estimate and schedule impact for all contract changes. If possible, the independent Government cost estimate shall address the impact of the original planned method of performance and effect on continued performance. The CO will confer with the FPD/Subproject FPD and other members of the IPT to determine the recommended path forward and validate proposed changes considered to be in addition to the current contract scope. Once authorized, the CO will issue the contractor a request for proposal. Upon receipt of the proposal, the IPT will perform a technical and cost/price evaluation, providing their results to the CO for development of the Government’s prenegotiation objective. Upon completion of negotiations (if required), the CO will issue a Standard Form 30 incorporating the negotiated changes.

If changes are determined to be urgent in nature, the CO may issue an undefinitized contract action in the form of a unilateral change order via Standard Form 30, which shall include a not-to-exceed limit on costs incurred prior to price agreement and a definitization schedule laying out when the contractor is required to submit its proposal and when the negotiation of the change is anticipated to be completed. To the maximum extent practicable, all changes shall be definitized within 180 days. The not-to-exceed amount should be sufficient to allow the contractor to plan/replan the work, prepare detailed cost and schedule estimates, and if necessary, initiate new long lead procurements, fund subcontract and supplier initial costs, and reopen the design process. The contractor may request additional funding if other initial activities are needed. The IPT will follow the same process described above upon receipt of the contractor’s proposal.

4.8 REVIEW OF CONTRACTOR’S REQUEST FOR EQUITABLE ADJUSTMENT

Changes to the performance measurement baseline that impact the WTP cost, price, schedule, and/or SOW as a result of a contractor-submitted REA require identification as such on the change control form and require resolution through the CO and appropriate contract change order processes as identified in CPM-AAM-IP-14.

Note: Fee maybe paid on contract change orders and REAs with entitlement in accordance with applicable FAR fee policy based on the net cost of the added and/or deleted work. Contractor performance that will result in the earning of minimum or no fee is not justification for adding more fees to the contract. Fee may not be based on initial or revised project performance measurement baseline amount. Fee may not be calculated or paid on estimated work to go or on cost overruns. Contract change orders and REAs, including the associated contract fee, should be negotiated to the extent possible prior to the incurrence of significant costs. Incentive or performance fees may not be established or paid on incurred costs, past delivery dates, or other actions that have been accomplished by the contractor prior to the negotiation of the fee. To the extent that changes and REAs involve significant costs incurred prior to agreement on contract price, the fee objective should be reduced to reflect decreased cost risk. Only fixed fee adjusted for reduced cost risk shall be negotiated on changes and REAs after all costs have been incurred.

4.9 STOP-WORK AUTHORITIES

Contract clause I.105, DEAR 952.223-71, “Integration of Environment, Safety, and Health,” into work planning and execution, allows the CO to issue an order stopping all or any part of the
work in the event the contractor fails to comply with said standards and requirements of DOE. A start order for resumption of the work may be issued at the discretion of the CO, and the contractor shall make no claim for an extension of time or for compensation or damages by reason of or in connection with such work stoppage.

4.10 CONTINUITY OF OPERATIONS PLANNING

The DOE/RL-2005-65, Richland Operations Office/Office of River Protection Continuity of Operations Plan, defines a single primary mission essential function of the Hanford Site: "to maintain the safety and security of special nuclear materials and stewardship of the nation’s Nuclear Weapons Complex." DOE O 150.1, Continuity Programs, was added to the contracts of those contractors on the Hanford Site with responsibility for storing or securing special nuclear material, or essential support activities associated with these primary mission essential functions. Other contractors, such as BNI, would only be expected to have practices in place to respond to events such as a pandemic or other nonemergency work stoppage, including establishing accountability for employees, the ability to place their facilities in safe standby or shutdown mode, etc. To address this, the WTP Contract contains a Hanford Emergency Management Plan. ORP has set up delegations of authority to ensure continuity of operations in the event the Hanford Emergency Management Plan is activated. Members of the Contract Management Team will continue operations in accordance with the Hanford Emergency Management Plan. The assistant manager for Business and Financial Operations is responsible to ensure contractor payments occur in the Finance Division and also is responsible to ensure the Procurement Division provides the acquisition of resources. The assistant manager for Mission Support is responsible for ensuring communication and information systems are functioning.

5.0 PROJECT PERFORMANCE MEASUREMENT BASELINE

5.1 PROJECT MANAGEMENT ACTIVITIES

The WTP Subproject FPDs and FPDs are responsible for project management oversight of the WTP Project in accordance with the roles, responsibilities, authorities, and accountabilities defined in DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets. The WTP Project uses an IPT approach for the acquisition of facilities capital assets to meet ORP mission objectives.

The WTP Project IPT is an essential element of DOE’s acquisition process and is utilized throughout all phases of the project lifecycle. The WTP Project IPT is a cross-functional group of professionals organized for the specific purpose of delivering the project and includes a diverse set of disciplines with the specific knowledge, skills, and abilities necessary to support successful project execution. The processes and purposes of the IPT and its subteams are described in detail in the IPT Charter included as an attachment to the WTP Project Execution Plan (MGT-PM-PL-06).

The WTP Project IPT is a formal team, with a Subproject FPD serving as the team lead. IPT membership comprises representatives from all the business and technical disciplines, including legal, financial, contracting, safety, quality, facility representatives, acceptance inspectors, fire
protection, engineering, environmental health, and others necessary for successful execution of the project. The CMT will be integrated into the individual project IPTs as membership on the CMT and project IPT overlap.

The WTP Contract contains the requirements of DOE O 413.3B. ORP staff ensures that program and project management requirements are integrated into the contractor’s management systems. Project management tools currently contained in DOE O 413.3B provide excellent means to ensure that the WTP Contract and the project baseline are properly integrated and managed. Integral to the effective management of the WTP Contract under the requirements of DOE O 413.3B is the monitoring of schedule and cost performance through an earned-value management system (EVMS). As with several contractor management systems, ORP has defined expectations for a formal project management system to accurately measure WTP Contract performance. Through ORP oversight/surveillance and external reviews, ORP ensures that the contractor’s performance in this area is effective and efficient, that issues requiring resolution are identified, and that the system is meeting its intended purpose.

The purpose of the WTP IPT is to provide broad oversight of the WTP Project, support the WTP FPD in managing the WTP Contract, and facilitate integration of the WTP Project within ORP and with other Hanford Site organizations. Each major WTP facility is supported by an IPT led by the Subproject FPD. Key areas of IPT responsibility include the following:

- Worker safety and health
- Oversight of WTP Project design, construction, commissioning, and future operability
- Cost and schedule performance
- Contract management
- Risk management
- Issue identification and resolution
- Planning for startup and commissioning
- QA
- Integration with external interfaces
- Contractor and project performance.

Additional details exist in the “Waste Treatment and Immobilization Plant Project Integrated Project Team Charter” included as an attachment to the Project Execution Plan (MGT-PM-PL-06). Typical members of an IPT are shown in Figure 6-1. The WTP Project contractor is a member of the IPT and engages technical and functional support staff, when requested.
Each Subproject FPD leads their respective IPT composed of direct and matrixed staff from various technical and support disciplines (e.g., engineering, health and safety, environmental compliance, project controls, budget and finance, contract administration, construction inspection and acceptance, nuclear safety, fire protection, and QA). All members of the IPT are responsible for understanding and implementing DOE’s requirements to ensure completion and turnover of constructed facilities. Interpretation of contract requirements is provided to the IPT members through collaboration with the Subproject FPD, the WTP FPD, and the CO.

The role of the Subproject FPDs and the IPTs is to develop the overall project strategy, establish requirements and performance expectations, manage the technical aspects of the contract, monitor and assess performance, and proactively anticipate and resolve issues that impact project success. Although the overall project is executed under the direction of Federal staff, the contractor manages daily execution.

5.2 WORK BREAKDOWN STRUCTURE/SCOPE BASELINE

The project work breakdown structure (WBS) is a hierarchical grouping of elements that form the basis for planning and scheduling work, budgeting, and reporting. It is a direct representation of the baseline scope of work to be performed on the WTP Project. The top-level WTP Project WBS is shown in Figure 6-2. WBS dictionary sheets defining top-level work scope for work elements defined in Figure 6-2 are contained in Appendix D of 24590-WTP-PL-PC-06-0001, *Earned Value Management System*, as modified.
5.3 TECHNICAL BASELINE

The WTP Project technical baseline is based on the currently approved set of design requirements and design documents that define the physical and functional characteristics of the facility and safety-significant structure, system, and components (SSC).

Design basis documents form the collective set of design criteria and inputs, design constraints, design analyses, and calculations. The design basis comprises the following documents:

- 24590-WTP-DB-ENG-01-001, Basis of Design
- 24590-WTP-GPP-SREG-002, EdNS Screening and Authorization Basis Maintenance
- 24590-WTP-SRD-ESH-01-001-02, Safety Requirements Document, Volume II
- 24590-WTP-PSAR-ESH-01-002-01, Preliminary Documented Safety Analysis to Support Construction Authorization
- Preliminary documented safety analysis, per facility
- Interface control documents
- State regulations, environmental permits, and licenses
- Waste compliance plans for the immobilized LAW and immobilized HLW forms
- 24590-WTP-QAM-QA-06-001, Quality Assurance Manual
- 24590-WTP-IAR-QA-03-016, Radiological Protection Program
- Preliminary fire hazards analysis, per facility
- Engineering discipline-specific design criteria.
WTP Project design criteria documents are identified in 24590-WTP-RPT-ENG-01-001, Technical Baseline Description. The WTP is designed to:

- Receive and separately store LAW feed and HLW feed
- Treat and immobilize the LAW fraction and provide final waste products that meet onsite waste disposal criteria
- Implement a sludge treatment process for solids washing, caustic leaching, and oxidative leaching and immobilize the HLW feed and radionuclides separated from LAW feed for return to DOE for eventual shipment to a national HLW repository
- Provide radiochemical analytical laboratory capability to support the operations of the facilities.

The waste treatment capacity for each major facility is defined as a product of the facility design capacity multiplied by the integrated facility availability factor, which has been established at 70 percent of design capacity. Immobilized waste products must meet waste loading and canister design requirements, as defined in the WTP Contract Specification 1, “Immobilized High-Level Waste Product,” and Specification 2, “Immobilized Low-Activity Waste Product.” Additionally, the LAB and BOF must be able to support the WTP Project key performance parameters (KPP).

KPPs for the WTP Project include performance requirements that, if changed, would have a major impact on the ability to complete mission objectives. The facility specification contained within the WTP design, construction, and commissioning Contract establishes minimum WTP functional requirements for the process and facility design, including waste treatment capacity requirements. Table 6-1 establishes the performance objectives for the WTP Project. The threshold KPP values in this table establish the project KPPs.

Table 5-1. Waste Treatment and Immobilization Plant Key Project Performance Parameters.

<table>
<thead>
<tr>
<th>Facility Capacity</th>
<th>Threshold KPPa (Minimum Capacity)</th>
<th>Treatment Capacity</th>
<th>Design Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW Pretreatment</td>
<td>2,244 MT sodium per yearb</td>
<td>2,620 MT sodium per yeara</td>
<td>3,740 MT sodium per yeara</td>
</tr>
<tr>
<td>HLW Pretreatment</td>
<td>735 MT as-delivered solids per yeara</td>
<td>860 MT as-delivered solids per yeara</td>
<td>1,225 MT as-delivered solids per yeara</td>
</tr>
<tr>
<td>LAW Vitrification</td>
<td>18 MT glass per day</td>
<td>24 MT glass per day</td>
<td>30 MT glass per day</td>
</tr>
</tbody>
</table>

1 See Section C.7 of the Waste Treatment and Immobilization Plant Contract for the “facility specification.”
Table 5-1. Waste Treatment and Immobilization Plant Key Project Performance Parameters.

<table>
<thead>
<tr>
<th>Facility Capacity</th>
<th>Threshold KPP(^a) (Minimum Capacity)</th>
<th>Treatment Capacity</th>
<th>Design Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLW Vitrification</td>
<td>3.6 MT glass per day</td>
<td>4.2 MT glass per day</td>
<td>6.0 MT glass per day</td>
</tr>
</tbody>
</table>

\(^a\) Key performance parameters based on Waste Treatment and Immobilization Plant Contract DE-AC27-01RV14136, Table C.6-5.1, “Cold Commissioning Capacity Testing Criteria.”

\(^b\) Pretreatment annual threshold capacity will be achieved by demonstrating equivalency during 20-day HLW and LAW cold commissioning capacity test period.

HLW = high-level waste.
LAW = low-level waste.
MT = metric ton.

5.4 SCHEDULE BASELINE

The WTP Project schedule establishes the timeframe and sequence for executing the work scope defined in the WBS. The schedule provides a logical sequence of work leading to facility and project completion milestones and decision points to ensure the schedule supports the project technical and budget objectives. The WTP Project schedule was developed and is maintained through an iterative planning process in conjunction with the resource plan and cost baseline, consistent with WTP Contract requirements. The schedule is the primary tool used for integrating the activities of the WTP Project and also is one of the tools used to measure progress and report performance.

The WTP Project schedule identifies and establishes interface milestones to ensure integration with external stakeholder activities, including HQ, other contractors, and regulatory agencies. Interfaces between the WTP Project and elements of the RPP are captured through schedule milestones established in the interface control documents.

CD milestones to support the WTP Project mission objectives are shown in Table 6-2. CD-0 through CD-3c and the revised cost and schedule baseline milestones have been completed. Based on a sequential startup and commissioning strategy for individual WTP facilities, multiple CD-4 approval decisions are being planned for consideration. CD-4 is defined as the successful completion of an ORR and approval to start up each facility consistent with DOE O 425.1D, which signifies project completion and approval to commence hot commissioning. The WTP FPD has the authority to plan and sequence cold commissioning and ORR activities to optimize a safe and efficient startup strategy and will work closely with the DOE ORR team leader to establish and manage the ORR plan of action. The initial and full facility operations-specific CD-4 forecast completion dates listed in Table 6-2 are assumed to occur six weeks following approval of the DOE-HQ ORR. The CD-4 levels are defined below.
Table 5-2. Critical Decision Milestones.

<table>
<thead>
<tr>
<th>Critical Decision</th>
<th>Project Execution Phase Approval</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD-0</td>
<td>Approve Mission Need</td>
<td>September 1995 (A)</td>
</tr>
<tr>
<td>CD-1</td>
<td>Approve Alternative Selection and Cost Range</td>
<td>September 1996 (A)</td>
</tr>
<tr>
<td>CD-2</td>
<td>Approve Performance Baseline</td>
<td>August 1998 (A)</td>
</tr>
<tr>
<td>CD-3a</td>
<td>Approve Limited Construction</td>
<td>October 2001 (A)</td>
</tr>
<tr>
<td>CD-3b</td>
<td>Approve Preliminary Construction</td>
<td>May 2002 (A)</td>
</tr>
<tr>
<td>CD-3c</td>
<td>Approve Full Construction</td>
<td>April 2003 (A)</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>Approval of Revised Cost and Schedule Baseline</td>
<td>December 2006 (A)</td>
</tr>
<tr>
<td>CD-4a</td>
<td>Approve Start of Initial Operations</td>
<td>6 weeks after LAW ORR approval</td>
</tr>
<tr>
<td>CD-4b</td>
<td>Approve Start of Full Operations</td>
<td>6 weeks after HLW ORR approval</td>
</tr>
</tbody>
</table>

*aCD-0 through CD-2 were approved during initial WTP privatization acquisition strategy. CD = critical decision. HLW = high-level waste. LAW = low-level waste. ORR = operational readiness review.*

Overall completion of the WTP facility startup is governed and constrained by HFFACO milestones.2

5.4.1 Critical Decision 4 Definitions

Definitions for CD-4 are as follows:

- **CD-4a – Approve Start of Initial Operations:** Approval to start initial operations is defined as follows:
  - Successfully demonstrating initial operation of one LAW melter and achieving threshold KPP of 9 MT of glass per day during cold commissioning.
  - Successful completion of an ORR and approval to commence hot commissioning activities in the LAW Facility consistent with DOE O 425.1D.

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2 Including Consent Decree, Case No. 08-5085-FVS, State of Washington v. Chu, United States District Court, Eastern District of Washington. The settlement of this litigation included not only this consent decree, but also modifications to several milestones in the Hanford Federal Facility Agreement and Consent Order, also known as the Tri-Party Agreement.
- **CD-4b – Approve Start of Full Operations:** Approval to start full operations is defined as follows:
  - Successfully achieving KPPs during cold commissioning as defined in Table 6-1. Threshold KPPs are 2,244 MT of sodium per year for LAW PT, 735 MT as-delivered solids per year for HLW PT, 18 MT of glass per day for LAW vitrification, and 3.6 MT of glass per day for HLW vitrification.
  - Successful completion of an ORR and approval to commence hot commissioning activities in the PT and HLW Facilities consistent with DOE O 425.1D.

### 5.5 COST BASELINE

The total project cost (TPC) for the WTP Project, including estimated contractor fee, is $12.263 billion. This TPC covers all WTP Contract work scope up through and including facility transition to operations. Although the TPC is approved by the secretarial acquisition executive, individual facility costs are not; these are likely to change as the project evolves, and risks are realized or avoided.

### 5.6 FUNDING PROFILE

The WTP Project performance baseline objectives reflect the currently approved TPC and completion date. A rebaseline of the WTP Project has commenced, after which an update of the baseline will be implemented.

The current WTP Project TPC contains work scope (e.g., hot commissioning) beyond the general EM practice. The revised project baseline will result in the identification of operations activities for work following CD-4a/b that will be funded by operating expense funding and not part of the line item construction project. The planned sequential ORR process and initiative to begin treatment of LAW as early as 2017 will result in WTP operating dollars being needed earlier than previously planned. Tank Farm Project operating dollars would fund all post CD-4 activities associated with hot commissioning, initiating radioactive operations, facility turnover, and maintaining WTP operational facilities.

The WTP Project is moving toward a more general EM practice of TPC versus WTP operational funding boundaries.

### 5.7 BASELINE CHANGE CONTROL

#### 5.7.1 Performance Baseline Change Control

The baseline revision and data maintenance process for the WTP Project is defined in MGT-PM-IP-05, *WTP Integrated Performance Baseline Change Management Process*. This document defines requirements and the process for executing changes to the WTP Project’s technical,

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3 The baseline referenced here reflects the currently approved performance baseline. A rebaseline of the WTP Project commenced in FY 2012, after which an update of the performance baseline will be considered.

4 A rebaseline of the WTP Project has commenced after which an update of the baseline will be considered.
schedule, and/or cost baseline. Performance baseline change approvals for the WTP Project are accomplished in accordance with the requirements in MGT-PM-PL-06, DOE O 413.3B, and implementing guides as appropriate. The hierarchy of approval authority limits for project performance baseline changes is reflected in Table 6-3.

Table 5-3. Performance Baseline Change Approval Thresholds.

<table>
<thead>
<tr>
<th>Approval Authority</th>
<th>Technical</th>
<th>Schedule</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretarial Acquisition Executive</td>
<td>Any change to the WTP scope or key performance parameters that affect the ability to satisfy the mission need.</td>
<td>Any change that impacts a critical decision milestone shown in Table 6-2 by more than 12 months, or that breaches the WTP Project completion date.</td>
<td>Any single change greater than or equal to $100 million or any change requiring an increase in the total project cost. Any change requiring modification of the Project Data Sheet funding profile.</td>
</tr>
<tr>
<td>WTP Federal Project Director</td>
<td>Changes within Contract scope that do not affect mission need.</td>
<td>Up to a 12-month change in critical decision milestones shown in Table 6-2 without an impact to the WTP Project completion date.</td>
<td>Any single change requiring contingency usage up to $100 million or any contractor change as described in the notes at the end of the table.</td>
</tr>
<tr>
<td>Contractor</td>
<td>Changes not impacting contract requirements.</td>
<td>Schedule changes within contract scope not impacting performance measurement baseline early finish dates associated with facility completion milestones.</td>
<td>Changes within management reserve limits and those described in notes at the end of the table.</td>
</tr>
</tbody>
</table>

1* See Table B-2-C-1 of Contract.

Note: In accordance with the Waste Treatment and Immobilization Plant (WTP) Contract DE-AC27-01RV14136, baseline change proposals (BCP) are generated and approved at the contractor’s discretion with the following exceptions:
- BCPs generated to convert project variances to budget, effectively reconciling a variance to enable improved manageability.
- BCPs generated to support the cost and schedule impacts from a request for equitable adjustment (REA). These BCPs (for REAs) will change the total estimated contract cost and may become the basis for earning additional fee.

5.7.2 Change Management Oversight

The WTP Project manages changes in functional and physical requirements and evaluates the impact of changes on cost and schedule objectives by implementing a rigorous baseline change process. The essential elements of this process include a well-defined baseline, an effective method of evaluating and communicating changes, and documenting approved changes to the baseline when they occur. The process promotes an orderly evolution from the baseline design and ensures the effect of changes on cost, schedule, and technical scope are properly evaluated.
and documented. A fundamental element in the oversight of contractor performance is the monitoring of changes to baseline plans, strategies, schedules, and other project activities.

Proper oversight is critical to ensuring only authorized work scope is being performed and credible estimate at completion calculations are developed for the project. Oversight includes IPT member involvement in contractor meetings, briefings, and reviews; engagement with contractor counterparts; monitoring of proposed contractor trends and BCPs; and analyses of design, procurement, and installation of key commodities, as well as contractor cost and schedule performance. IPT members review contractor baseline plans, schedules, strategies, and other activities, ensuring that when the contractor prepares a BCP, there is knowledge of the change being proposed. Changes proposed at the contractor level are shared during the IPT meetings, which the Subproject FPDs chair.

5.7.3 Configuration Management

Configuration management establishes and maintains consistency of the WTP Project’s performance baseline throughout its lifecycle. Configuration management is applied consistent with DOE O 413.3B. The WTP Project also follows ANSI/EIA-649, National Consensus Standard for Configuration Management, which incorporates International Standards Organization 10007:2003, Quality Management - Guidelines for Configuration Management, and is tailored to support the project’s configuration management process.

Configuration management identifies, documents, and controls the configuration of SSCs, as described in 24590-WTP-PL-MG-01-002, WTP Configuration Management Plan. The configuration management plan describes the process used to document how performance baseline changes are developed, evaluated, approved, implemented, verified, and incorporated into design and facility documentation.

24590-WTP-PL-MG-01-002 is tailored to support WTP Project design, procurement, construction, and commissioning activities. The plan implements a configuration management process with four basic steps as follows:

- **Identification and documentation**: Selecting configured items, documenting their physical and functional characteristics, and allocating unique identification
- **Configuration control**: Controlling changes to a configured item after formal issue of its configuration documents
- **Status tracking and reporting**: Recording and reporting of configured documents and the approved changes to those documents
- **Configuration audit**: Examining review, inspection, and test records to determine that a configured item conforms to its configuration requirements.

5.7.4 Contract Management

Table 6-4 shows approval authorities and thresholds for WTP Contract changes. The majority of within-contract baseline changes are managed through WTP Project management reserve and 24590-WTP-GPP-GAB-422, Change Control Program.
Table 5-4. Contract Change Authority Thresholds.

<table>
<thead>
<tr>
<th>Approval Authority</th>
<th>Schedule</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Procurement Executive (MA-60)</td>
<td>Any change impacting contract end date.</td>
<td>&gt; $50 million contract change</td>
</tr>
<tr>
<td>Head of Contracting Activity (EM-50)</td>
<td></td>
<td>≤ $50 million contract change</td>
</tr>
<tr>
<td>Contracting Officer (Waste Treatment and Immobilization Plant)</td>
<td>Any change impacting contract end date.</td>
<td>≤ $50 million contract change with approval of U.S. Department of Energy, Office of River Protection Contracts and Property Management Director</td>
</tr>
</tbody>
</table>

Contract changes occur when issues outside the control of the WTP contractor cause an increase or decrease in cost, time, or performance of any part of the work under the contract. In these cases, the contractor may submit an REA as defined in the WTP Contract. Resolution of REAs normally results in development of a BCP, which can decrease or increase WTP Project contingency. The WTP Project contingency management process is aligned closely with the WTP Project risk management process where WTP risks and opportunities are monitored throughout the life of the project.

5.8 PERFORMANCE MEASUREMENT, REPORTING, AND FORECASTING

The WTP FPD is responsible for baseline development, execution, performance measurement, and reporting in accordance with DOE O 413.3B. The WTP FPD measures progress through the completion of performance incentives, WTP Contract deliverables, and achievement of HFFACO milestones and Consent Decree, Case No. 08-5085-FVS, State of Washington v. Chu, United States District Court, Eastern District of Washington.

A key objective of performance oversight is to ensure the contractor maintains an EVMS compliant with ANSI/EIA-748, Earned Value Management Systems. The DOE secretary certified the WTP Project EVMS on March 4, 2008, as compliant. ORP conducts and/or participates in periodic but no less than annual EVMS assessments to ensure ongoing compliance. The WTP EVMS provides information to support weekly, biweekly, and/or monthly data reports and/or analysis. Monthly performance information is reported to the HQ Project Assessment and Reporting System.

Additional IPT oversight, analysis, and assessment of contractor performance includes the following areas:

- **Technical**: The WTP Engineering Division (WED) oversees contractor engineering performance through assessments, surveillances, and design oversight reviews. Assessments and surveillances focus on the programmatic and process aspects of contractor engineering, while design reviews evaluate the contractor’s designs against requirements. Design reviews focus specifically on technical reviews of SSCs.
Additionally, specific technical issues are identified and tracked to resolution through the use of technical issue summary sheets (i.e., cut sheets).

- **Schedule:** WTP and the contractor have regular IPT schedule review meetings. In these meetings, the status of current and near-term activities and critical path activities are discussed. WTP performs its own independent schedule analysis and assessment each month. Reports are generated and the information is evaluated and used by Subproject FPDs and IPT members to engage the contractor on areas of concern. In addition to these standard reports, logic traces, specific data extracts, and other special requests from the IPTs are supported.

- **Cost:** Cost and productivity are monitored and analyzed through briefings at IPT meetings and upon receipt of the contractor’s monthly earned value and project controls data defined in the WTP Contract. DOE staff provide oversight to the contractor’s project controls systems and data to determine contractor adherence to established project performance, cost, and schedule goals. These analyses typically focus on topics such as commodity design release and construction installation, material and equipment procurement, engineering design performance, change control and Material Requisition utilization, and management of risks. Cumulative and current-period metrics are issued each month to assess contractor productivity, including cost and schedule performance compared to the planned rate of performance. A variety of report types are prepared and assembled by the IPTs to provide the WTP Project with accomplishments and issues, including forward-looking problem mitigation strategies.

### 5.9 PROJECT REVIEWS

Reviews of the WTP Project are a principal component of the assurance process. Project management performance reviews presented to senior leadership are performed monthly through the project lifecycle. The reviews provide both information exchange and more detailed information than that provided in status reports.

External independent reviews are conducted by the DOE and the contractor in many technical and project management areas. Corrective actions resulting from these reviews are tracked and closed using ORP’s action tracking system. In addition to external reviews, the WTP Project conducts several design assessments each year, typically focused on safety-significant SSCs. Consistent with the secretarial acquisition executive responsibility to direct project reviews, the WTP Project will continue to sponsor construction project reviews, no less than annually, to satisfy the DOE O 413.3B requirement to conduct annual project peer reviews for projects with a TPC greater than $100 million.

Design oversight includes ad hoc and planned design reviews in accordance with TRS-OA-IP-01, *Integrated Assessment Process*, to review specific contractor design products or processes. This type of oversight is governed by desk instruction MGT-PM-DI-03, *Conduct of Engineering Oversight*, which also includes reviews of the design processes used to develop WTP engineering products. These activities are performed principally by members of the WED with assistance from other DOE personnel and, when necessary, industry experts.
Construction oversight includes facility representative operational and safety oversight, and facility representative and nationally qualified code site inspector construction quality oversight performed in accordance with TRS-OA-IP-01 and TRS-OA-IP-02, Operational Awareness Oversight Database. This type of oversight is governed by desk instruction MGT-PM-DI-04, WCD Construction Oversight. These oversight activities are performed to ensure safe construction activities, and to confirm adequacy of construction quality and system configuration, in accordance with design and WTP Contract requirements.

Since 2006, the WTP Project has retained a broad range of external, senior professionals from private industry, academia, and other government agencies to review the key elements of the WTP Project, including technology, cost and schedule, project management, project controls, and earthquake seismic criteria. Actions resulting from these reviews are formally documented and tracked to closure. Progress is continually monitored by the WTP Project senior management team and IPTs.

WTP manages a yearly assessment program to facilitate oversight of contractor activities and allow Federal staff to:

- Monitor the contractor’s performance to ascertain program status
- Continually improve contractor’s design, construction, and commissioning processes
- Determine the effectiveness of implementing applicable DOE orders, state and Federal regulations, national codes and standards, and contract requirements, including authorization basis requirements
- Oversee the effectiveness of the WTP Project Risk Management Program
- Evaluate the effectiveness of contractor assurance systems.

WTP reviews focus on performance and effectiveness, not just compliance with requirements. The WTP FPD uses an engineering and construction oversight process as defined in TRS-OA-IP-01. Each year, elements of the design, construction, and/or commissioning process are reviewed.

6.0 WASTE TREATMENT AND IMMOBILIZATION PLANT MANAGEMENT SYSTEMS

6.1 QUALITY ASSURANCE

The WTP Project QA Program was established for the WTP Project in accordance with DOE O 414.1C, Quality Assurance, and meets the August 2000 contractual QA requirements specified in the following guidelines:

- 10 CFR 830, Subpart A (10 CFR 830.121 [a])
- ANSI/ASME NQA-1-2000 Part I and Subpart 2.7 (DOE O 414.1 C, Attachment 2, 2.a.[2][a])
• DOE/RW-0333P Rev. 20 (DOE O 414.1C, Attachment 2, 2.a [4][d])
• 24590-WTP-SRD-ESH-01-001-02 requires the contractor to apply ASME NQA-1-2004 to perform commercial grade dedication activities.

The WTP QA Program is documented in MGT-PM-PL-04, Quality Assurance Program Description (QAPD), which provides for the control of WTP Project activities that affect or will affect the quality of SSCs. It includes all activities necessary to provide adequate confidence that such SSCs will perform satisfactorily in service. The QAPD is also applied to certain equipment and activities that are not safety-related but support safe plant operations, and to other DOE requirements that will lead to the establishment of additional program requirements. The QAPD also applies to the research and technology activities that support the design and permitting of WTP safety-related SSCs. It uses a graded approach in applying QA requirements, based on quality levels established through a risk-determination process. The ORP graded approach to selection of quality levels is defined in TRS-QSH-IP-10, ORP Graded Approach, 24590-WTP-QAM-QA-06-001, Quality Assurance Manual, and associated document 24590-WTP-PD-MGT-0001, WTP Graded Approach, which also addresses DOE O 414.1C requirements.

WTP has responsibility for design assurance and the WTP Project contractor has responsibility for design authority. These roles are integrated into the project audit, assessment, and surveillance process and used to implement the DOE field element oversight function. The objective of the integrated assessment process is to eliminate redundant quality requirements or conflicting requirements that extend beyond the WTP Project approved Code of Record and may dilute focus from constructing and commissioning a safe and efficient waste treatment plant.

The QAPD is the top-level policy document that establishes the manner in which quality is to be achieved. It presents the WTP Project’s overall philosophy regarding achievement and assurance of quality. Contractor-implemented documents assign more detailed responsibilities and requirements and define the organizational interfaces involved in conducting activities within the scope of the QA Program.

6.2 RISK MANAGEMENT

The WTP Project risk process is documented in MGT-PM-PL-11, Waste Treatment and Immobilization Plant Project Risk Management Plan. The plan describes the integrated risk process for risks and opportunities that cross between RL and ORP as well as the process used by the contractor to manage risk. The contractor risk process is documented in 24590-WTP-PL-PR-01-003, Risk Management Plan, and is supported by 24590-WTP-GPP-PT-003, Project Risk Assessment and Management. This plan is consistent with the risk management intent described in DOE O 413.3B and DOE G 413.3-7, Risk Management Guide.

The WTP Project risk management process focuses on those risks that affect the WTP Project and includes determining the managing entity (contractor or DOE) and the funding source (contractor MR or DOE contingency). Integration of the WTP Project risk process is coordinated through a Joint Risk Management Team (JRMT). Risk management is integrated with the ORP Risk Management Program to ensure external project risks are factored into the assessment process.
The WTP contractor is responsible for managing risks within the scope of the WTP Contract, using the MR designated for mitigation of performance baseline and contract risk. Project risks outside of the contractor’s area of responsibility are managed by DOE, and mitigation actions not included in the contractor’s performance baseline may be funded by DOE contingency. The WTP Project manages and tracks three types of risks:

- **Contractor engineering, procurement, and construction risks:**
  - Execution uncertainties: These are estimate and work performance uncertainties (e.g., quantities, pricing, and productivity) within the WTP contractor’s scope of work.
  - Technical/other risks: These are risks primarily from design evolution and interpretation of contract requirements that are within the scope of the WTP Contract.

- **DOE technology and programmatic (including regulatory) risks:** These are risks to the WTP Project within the contract period but outside the contractor’s scope of work. These project risks typically result from the development and application of first-of-a-kind process technologies, including process uncertainties that may require research and technology development, potential impacts from regulatory decisions, funding shortfalls, other Hanford Site contractor interfaces, and certain economic factors.

- **Opportunities:** These are positive technical, programmatic, or execution improvements, regardless of owner (contractor or DOE) that may result in savings.

Both contractor and DOE project risks and opportunities are assessed and managed utilizing the WTP Project Risk Management Program and are included on the project risk register for monitoring and reporting purposes. Engineering, procurement, construction, and commissioning risks, in-scope risks to the execution of the WTP Project, are the contractor’s responsibility. Contractor mitigation actions associated with DOE risks may require a contract modification to transfer scope and budget to the WTP Project baseline for mitigation actions. Opportunities are managed by BNI and may require DOE acceptance and approval to realize a positive result (e.g., change in requirements).

The risk management process and its integration and execution throughout the facility project areas and organization is overseen by the JRMT. The JRMT meets at least monthly, and results of JRMT proceedings are maintained and support DOE risk reporting requirements. The JRMT charter identifies the objectives, composition, and operation of the JRMT.

### 6.3 INTEGRATED SAFETY MANAGEMENT

MGT-PM-PL-02 defines the safety functions, responsibilities, and authorities for management of work activities performed by WTP staff. WTP line management is responsible for implementing integrated safety management into work practices to ensure work is conducted efficiently and protects workers, the public, and the environment. Where contractors are used to plan and conduct work on the WTP Project, WTP line management fulfills its safety responsibility by establishing expectations and contractual requirements, overseeing compliance, and managing contracts.
MGT-PM-PL-03, Integrated Safety Management System Description, defines how the WTP Project integrates environmental, safety, health, and quality requirements and management controls into WTP Project activities and oversees implementation of integrated safety management with contractors. 24590-WTP-ISMSD-ESH-01-001, WTP Project Integrated Safety Management System Description, describes the contractor’s Integrated Safety Management System (ISMS). The ISMS is implemented and maintained on all aspects of the project to ensure design, construction, and commissioning of the WTP Project are performed in a manner that protects employees, the public, and the environment. This goal is achieved by integrating safety into the planning and execution of all project work.

Annually the ORP provides a readiness declaration for its ISMS and its contractor’s ISMS for the upcoming fiscal year, based on self, independent, and external assessments, as well as an analysis of the previous year’s safety performance. The WTP Project and ORP ISMS declarations are consistent with DOE M 450.4-1, Integrated Safety Management System Manual, and address the evaluation criteria required by the EM Program.

6.4 INTERFACE MANAGEMENT

Successful WTP construction and transition to operations require management of multiple interfaces throughout the Hanford Site. The principal mechanism for managing interfaces is through interface control documents (ICD). Each ICD defines an interface and the responsibilities of the organizations involved in making the interconnection between two systems function. The ICD describes the physical interface (e.g., location, design, construction), the product to be transferred (e.g., tank waste, glass, water, electricity), and the administrative and procedural controls surrounding operation of the interface (e.g., schedules, procedures, reports, cost sharing).

24590-WTP-PL-MG-01-001, Interface Management Plan (IMP), describes the roles and responsibilities of participating organizations and describes the means to identify and resolve interface incompatibilities and determine the impact of interface changes. A list of current WTP Project ICDs is shown in Table 7-1. 24590-WTP-PL-MG-01-001 describes the management of designated interfaces between the WTP Project and ORP and RL, the TOC, Plateau Remediation Contractor, and Mission Support Contractor.

Table 6-1. Waste Treatment and Immobilization Plant Project Interface Control Documents.

<table>
<thead>
<tr>
<th>Interface Control Document No.</th>
<th>Interface Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raw Water</td>
</tr>
<tr>
<td>2</td>
<td>Potable Water</td>
</tr>
<tr>
<td>3</td>
<td>Radioactive Solid Wastes</td>
</tr>
<tr>
<td>5</td>
<td>Nonradioactive, Nondangerous Liquid Effluents</td>
</tr>
<tr>
<td>6</td>
<td>Radioactive, Dangerous Liquid Effluents</td>
</tr>
</tbody>
</table>
Table 6-1. Waste Treatment and Immobilization Plant Project Interface Control Documents.

<table>
<thead>
<tr>
<th>Interface Control Document No.</th>
<th>Interface Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Land for Siting</td>
</tr>
<tr>
<td>11</td>
<td>Electricity</td>
</tr>
<tr>
<td>12</td>
<td>Roads</td>
</tr>
<tr>
<td>14</td>
<td>Immobilized High-Level Waste</td>
</tr>
<tr>
<td>15</td>
<td>Immobilized Low-Activity Waste</td>
</tr>
<tr>
<td>19</td>
<td>Waste Feed</td>
</tr>
<tr>
<td>23</td>
<td>Waste Treatability Samples</td>
</tr>
<tr>
<td>28</td>
<td>Pit 30 Aggregate Supply for Construction</td>
</tr>
<tr>
<td>29</td>
<td>Waste Sodium</td>
</tr>
</tbody>
</table>

6.5 SAFEGUARDS AND SECURITY

The RPP Safeguards and Security (SAS) Program is implemented in accordance with Federal laws and DOE SAS standards and requirements to ensure the protection of DOE-owned material, property, and information. The scope of SAS Program includes:

- Physical protection
- Material control and accountability
- Protection of DOE information and the Hanford Site access requirements
- Government property protection.

As set forth in agreements between EM, ORP, and RL, the RL Manager is responsible for Hanford Site security. Specific SAS roles and responsibilities have been defined in agreements between ORP and RL regarding security and emergency services. The Hanford Mission Support Contract DE-AC06-08RL14728, Section J, “Mission Support Contract Services and Interface Activities,” defines SAS responsibilities for the WTP and other Hanford Site contractors.

6.6 CONTRACT RECORDS, DOCUMENTS, PROCEDURES, AND RECORDS MANAGEMENT

All records acquired or generated by the contractor in performing the Mission Support Contract are the property of the Government, except for those defined as “Contractor-owned” in Contract Clause I.118, “Access to and Ownership of Records,” 970.5204-79. These records must be delivered to the Government or otherwise disposed of at contract completion or termination, as directed by the CO. Additional contractor requirements concerning records management are found in Clause H.31, “Information.” Contract Clause I.118, “Access to and Ownership of
Records,” addresses records management with respect to occupational health records and radiation exposure records.

All occupational health records generated during the performance of Hanford-related activities will be maintained by the occupational/medical services contractor and are the property of DOE. All radiation exposure records generated during the performance of Hanford-related activities are the property of DOE and are maintained by Battelle staff at PNNL.

The WTP Project has established a document control process to control the access and distribution of all project information, including procedures, letters, memoranda, forms, and reports. All external letters and business-related internal memoranda and external letters are identified using a unique set of alphanumeric characters. Electronic mail and non-business-related internal memoranda are not assigned correspondence numbers. Individuals who must know the document contents to perform their jobs are identified in controlled distribution lists. Individuals verify through the Document Management and Control System or the current ORP management system Website that the current version is being used.

The WTP Project management system control process is governed by MGT-PM-IP-01, ORP Management System Work Process Control. Before procedures or reports are issued or revised, a review and approval process takes place in which document correctness and consistency are verified with higher-level documents. The completed approval page provides evidence of the review process and is retained with the record copy of the document. The concurrence ladder for each document provides the means to ensure WTP Project products are reviewed and found to be acceptable.

The WTP Project manages records consistent with TRS-QSH-IP-08, Records Management, and CPM-AAM-DI-09, Records Retirement. All project staff must ensure that records are maintained in accordance with approved implementing procedures. ORP procedures identify which documents are to be retained as records. Managers and staff are responsible for implementing this aspect of the documents and records process in their areas of responsibility. ORP uses the Hanford Network for access and control of procedures. Records management activities are controlled on the WTP Project by use of the Integrated Document Management System. The WTP contractor uses BNI-specific systems for procedure and records management and provides these documents to ORP as required using a BNI-specific application called WTP eRoom.

6.7 INSPECTION AND ACCEPTANCE PROCESS (SERVICES)

Standard 4 of the Contract requires that BNI have a construction, procurement, and acceptance testing program to ensure work performed under the Contract conforms to contract requirements. Inspection, test, and evaluation records are reviewed by the Government. To comply with this requirement, BNI developed an integrated construction and acceptance testing program, and provided the program plan to DOE for concurrence, Contract Deliverable 4.4. This program requires appropriate contractor inspection of facilities as they are constructed and applicable testing of vendor-provided materials and equipment. BNI will develop a comprehensive

5 Link to Section I Clauses referenced.
commissioning plan, Contract Deliverable 5.1, which will provide for integrated plant testing to confirm that throughput and capacity objectives are met, and that the resulting immobilized waste products meet acceptance criteria.

The FPD established the WCD consisting of lead construction inspectors, facility representatives, and acceptance inspectors to perform construction oversight for WTP. WCD staff are assigned to ensure contract requirements are met and to verify construction meets safety requirements, drawings and specifications requirements, and contract authorization basis and dangerous waste permit requirements. WCD staff do not have design change authority and may not direct BNI in any way that may result in contract cost or schedule impacts. Significant activities performed by WCD staff are documented in inspection notes and formally reported to construction management in periodic inspection reports. In addition, the WTP Subproject FPDs and subproject IPTs are responsible for following and assessing facility project management performance and are to be fully aware of applicable design, construction, and operations performance and technical issues.

The Subproject FPDs evaluate and provide feedback to ORP and BNI management on the acceptability of proposed resolutions of issues and technical approaches in design and construction. They monitor and assess progress and cost associated with design and construction of assigned facilities. They also continuously assess the adequacy of assigned facility design and construction in terms of operability and ability to meet contract-required performance within allowed cost and schedule. The Subproject FPDs are tasked with keeping ORP well informed of progress, issues, and adequacy of design and construction for their assigned facilities. In addition, they are the primary contacts between ORP and the contractor when communicating assigned facility performance feedback. WTP construction oversight and control is documented in MGT-PM-DI-04. Additional DOE inspection and acceptance rights can be found in Section E of the WTP Contract.

7.0 TRANSITION TO OPERATIONS

Transition to operations defines the basis for attaining operating capability, which includes completing inspection and acceptance reports and documenting project completion criteria have been met, technical performance has been acceptably demonstrated, and the mission need has been satisfied. The successful completion of transition to operations ensures that DOE’s asset management goals and financial closure requirements are achieved.

7.1 CONSTRUCTION ACCEPTANCE AND TESTING

The WTP Project has established a construction, procurement, and acceptance testing oversight program to ensure work performed conforms to facility design and operability requirements. ORP performs this oversight in accordance with TRS-OA-IP-01, MGT-PM-DI-03, and MGT-PM-DI-04.

The contractor’s testing and acceptance program is outlined in commissioning strategy document 24590-WTP-RPT-OP-10-007, 2010 Contract Compliant WTP Commissioning Strategy with Sequential ORR. This commissioning strategy document describes procedures and plans for
conducting construction testing, factory acceptance testing, and process technology testing. This program requires inspection of facilities as they are constructed, including testing of vendor-provided materials and equipment.

Two WTP divisions (WCD and WED) oversee construction and vendor tests in support of the Subproject FPDs and facility IPTs. WCD and WED ensure construction testing meets:

- Contract and design requirements
- Safety and quality requirements
- Drawings and specifications requirements
- Authorization basis and dangerous waste permit requirements.

7.2 COMMISSIONING AND TRANSITION TO OPERATIONS

The commissioning and startup of a hazardous nuclear and chemical plant the size, complexity, and uniqueness of the WTP Project is an enormous undertaking. First-of-a-kind facilities like the WTP require a series of component, system, and facility acceptance tests, followed by cold commissioning and readiness reviews. During the testing and commissioning process, new issues are discovered and resolved. Operators are trained and qualified and become intimately familiar with the controls and procedures for both normal and off-normal events before acceptance testing is completed. WTP operations, similar to what has been required to operate and oversee reactors and chemical reprocessing plants or canyons, has not taken place at Hanford for decades and presents an operational challenge that will require recruitment of the best and brightest within the American chemical and nuclear industries.

The WTP Project will undergo a phased commissioning program to ensure that equipment performance and staff proficiency are demonstrated, while the plant is operated at the lowest practical risk levels. The contractor’s commissioning program will include a management self-assessment that will demonstrate readiness for a contractor ORR. A successful contractor ORR and DOE ORR for each facility will be the basis for project completion and approval to start operations (CD-4). Following the achievement of KPPs and receipt of an approved CD-4, the WTP contractor could demonstrate integrated operations of the WTP outside the project TPC using radioactive materials and transition the facility to a WTP post-commissioning contractor to maintain radioactive (hot) operations. Concurrent operation of the PT, HLW, LAW, BOF, and LAB could be demonstrated following completion of WTP Project activities to demonstrate sustained and integrated operations of the complete tank waste vitrification process.

To realize the benefits of sequential commissioning, a phased approach to bringing WTP facilities online and transition to operations is being planned. This revised approach involves uncoupling the commissioning, ORR, and turnover of each WTP facility, and defining a phased CD-4 (“Approve Start of Operations”) process. This would facilitate operation of the LBL, sequential transition to operations for all facilities, and potential treatment of tank waste as early as 2017.6

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6 A rebaseline of the WTP Project has commenced, after which an update of the performance baseline will be considered.
A strategic approach for conducting sequential ORRs is documented in 24590-WTP-RPT-OP-10-005, *WTP Operational Readiness Review Strategy*. The ORR strategy defines actions needed to support DOE O 425.1D core requirements associated with the seven principles in the WTP Integrated Safety Management Program. For each core requirement, specific actions required for the ORR process are identified, and if not yet complete, the mechanism for tracking closure of the action is defined.

Based on collective integration with the Tank Farms Project, the WTP Project would establish a commissioning strategy that includes:

- Sequential commissioning of facilities to support current contract deliverables
- An ORR strategy tailored to leverage sequential commissioning by reducing the risk and scope of a single and more complex ORR
- A schedule that supports starting the treatment of tank waste as early as 2017
- Development of an ORR plan of action defined by DOE O 425.1D
- Definition of depth and breadth of the ORR
- Identification of the startup authority
- Identification of the programs and procedures to be validated during specific ORRs or stages of ORRs.

The WTP Project will develop and implement an interface management plan and a facility transition plan that describe the strategy, schedule, and requirements for safe, efficient, and sequential transfer of the WTP facilities, associated workforce, and all activities that support transition of operations from the WTP construction contractor to the WTP operator.

The WTP Startup and Commissioning Integration Division is responsible for coordinating startup and commissioning activities and is supported by staff from the WCD and WED. In the commissioning strategy, each WTP facility undergoes a sequence of tests of progressively increasing complexity for both personnel and equipment to demonstrate that the WTP facilities will operate as designed and meet KPPs. See Figure 8-1 for the logic involved in this process.
The successful commissioning of the WTP will require an integrated effort between ORP and the respective WTP and tank farms contractors. A sequential facility startup and commissioning strategy is a lower risk approach to facility completion and will result in a ramp up to operations similar to what is experienced at other complex chemical and radiological facilities.

8.0 CONTRACTOR LITIGATION MANAGEMENT

Contractor litigation management is defined by 10 CFR 719, “Contractor Legal Management Requirements; Department of Energy Acquisition Regulation.” The RL/ORP procedure, *Litigation Management-Contractor*, was written to assist personnel in controlling and overseeing litigation costs for which contractors seek reimbursement under the terms of their contracts, including general legal services.

It also provides information for instances when WTP retains legal counsel for litigation where legal costs over the life of the matter are expected to exceed $100,000.

9.0 CONTRACTOR EMPLOYEE CLAIMS SYSTEMS

The CO with the assistance of the RL Contract Industrial Relations office is responsible for ensuring the contractor provides an expedient and customer service-oriented workers’ compensation claims process/program that is in accordance with Washington State Department of Labor and Industries requirements and applicable laws.
10.0 PROPOSED SETTLEMENT OF COSTS FOR POST-CONTRACT LIABILITIES

The WTP Contract contains no site pension and/or retiree medical expenses entitlements, thus, it creates no post-contract liabilities.

11.0 CONTRACT CLOSEOUT

When the contractor has completed the work scope, the process of verification of contract completion and initiation of contract closeout can commence in accordance with CPM-AAM-DI-03, Contract Closeout. Contract closeout will conform to the requirements of FAR 4.804, Closeout of Contract Files.

12.0 STRATEGY FOR COST REDUCTION

The contract was modified to a cost-plus award fee contract type by Modification No. A143. Award fee will be the primary incentive for contractor cost reduction and containment. Approximately $8.6 million per calendar year is available for earnings based on certain cost management performance objectives and performance measures in the PEMP.

13.0 KEY PERFORMANCE METRICS FOR DETERMINING CONTRACTOR PROGRESS

The WTP Project uses performance metrics to measure and determine contractor progress. Table 15-1 lists a representative sample of meaningful performance metrics.

Table 13-1. Meaningful Performance Metrics. (2 pages)

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear Safety and Quality</td>
<td>Deficiency Report Aging</td>
</tr>
<tr>
<td>Nuclear Safety and Quality</td>
<td>Corrective Action Report Aging</td>
</tr>
<tr>
<td>Nuclear Safety and Quality</td>
<td>Project Issues Evaluation Reporting</td>
</tr>
<tr>
<td>Earned-Value Management System</td>
<td>Cost Variance</td>
</tr>
<tr>
<td>Earned-Value Management System</td>
<td>Schedule Variance</td>
</tr>
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<td>Earned-Value Management System</td>
<td>Variance at Completion</td>
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<tr>
<td>Earned-Value Management System</td>
<td>Management Reserve Identification</td>
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<td>Control Accounting Manager EAC</td>
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<tr>
<td>Earned-Value Management System</td>
<td>Project Manager EAC</td>
</tr>
<tr>
<td>Earned-Value Management System</td>
<td>Engineering Hours</td>
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<tr>
<td>Safety</td>
<td>Total Recordable Case Rate</td>
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<tr>
<td>Safety</td>
<td>Days Away from Work Rate</td>
</tr>
<tr>
<td>Safety</td>
<td>Occurrence Reporting</td>
</tr>
<tr>
<td>Safety</td>
<td>Days Away, Restricted, Transfer</td>
</tr>
</tbody>
</table>
Table 13-1. Meaningful Performance Metrics. (2 pages)

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
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</thead>
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<td>Acquisition</td>
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<td>Cost Performance Index</td>
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<td>Schedule Performance Index</td>
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<td>Performance Evaluation and Measurement Plan/Fee</td>
<td>Management of Baseline Change Requests</td>
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</table>

All work must be performed in accordance with applicable law, regulation, and/or DOE directive. Failures in contract performance as defined in Contract Clause B.8, Conditional Payment of Fee, Profit, or Incentives, may be the basis for reduction of fee. Contract Section E, Inspection and Acceptance, is also the basis for contractor rework for performance that does not meet contract requirements.

14.0 AGREEMENTS WITH STATE, COMMUNITY, OR OTHER ENTITIES

Signed May 15, 1989, the HFFACO is a legally binding agreement between the DOE, EPA, and Ecology as mentioned in the SOW, Section C.1. The HFFACO describes the actions and timetable necessary to achieve compliance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and the Resource Conservation and Recovery Act of 1976. Construction and operations of the WTP must comply with permits issued by Ecology under its EPA-authorized Hazardous Waste Management Act of 1977 and its implementing dangerous waste regulations, as well as permits under the Federal Clean Air Act of 1970 and the State of Washington Clean Air Act. The Consent Decree in Case No. 08-5085-FVS, United States District Court for the Eastern District of Washington, governs and constrains overall WTP facility startup activities required by that Consent Decree.

15.0 PAST PERFORMANCE REPORTING REQUIREMENTS

The contractor performance assessment report is an annual assessment of contractor performance and is based on facts supported by performance assessment and management data. The reports are used to provide past performance information to acquisition professionals for use in future acquisitions. Performance documentation is entered into an electronic performance report for each contract that has a total contract value exceeding $150,000. The system utilized by DOE for collecting past performance information is the Contractor Performance Assessment Reporting System maintained by the Naval Sea Systems Command.
Information input into Contractor Performance Assessment Report System is then centrally filed in the Past Performance Information Retrieval System (http://www.ppirs.gov/). An annual report will be documented until the close of the Contract as outlined in CPM-AAM-IP-02, Contractor Performance Information (FAR 42.15).

The assessment of the contractor’s past performance is the joint responsibility of the WTP IPT and the CO; however, specific areas required to be completed must be accomplished by IPT personnel with specific knowledge. Technical members of the IPT will assess the following areas:

- Quality of product
- Schedule
- Management.

The CO will assess business relations and subcontracting.

The CO will review the report, narratives, and ratings. If the ratings are not supported by the narrative, the report will be sent back to the IPT technical members for further justification. When the ratings and narratives are considered satisfactory, the CO will forward the report to the contractor for a 30-day review period.

The contractor will review and provide comments and return the report to the CO. If the contractor accepts the report, the CO will close out the report. If the contractor disputes the report, the CO must forward the information to the CPM Director for resolution.

The director will review the contractor dispute with the CO and IPT technical staff who wrote the report. The director will decide to change the report or leave it as written and close it out. The report will not be returned to the contractor for any further reviews.

The contractor performance assessment report will be finalized no later than 120 days following the end of each fiscal year performance period.

16.0 OTHER SPECIAL EMPHASIS AREAS

Other special emphasis areas included in the WTP Contract and this CMP follow:

- Small Business Subcontracting Plan – goal participation and achievement (Contract Section J, Attachment D, Small Business Subcontracting Plan)
- Self-performance as required by Contract Clause H.13, Self-Performed Work
- Environmental compliance activities (measured in PEMP and governed by Contract Section H, Clauses H.26 through H.30)
- Labor relations and participation in the Hanford Site Stabilization Agreement (Contract Section H, Clauses H.8 through H.12)
• Achieve and sustain favorable engineering and construction cost and schedule performance (measured in PEMP)
• Closure on technical approaches and implementation strategies for nuclear safety licensing for startup and commissioning, M3 vessel mixing system design, large-scale integrated testing, and multiple ORRs.

17.0 APPENDICES

Attachment A, “Contract Section C Deliverables”

18.0 REFERENCES


Analytical Services and Testing Contract

ANSI/ASME NQA-1-2000 Part I and Subpart 2.7 (DOE O-414.1 C, Attachment 2, 2.a.[2][a]).


Case No. 08-5085-FVS, *State of Washington v. Chu,* United States District Court, Eastern District of Washington


CPM Procedure Award Fee Administration for WTP

**CPM-AAM-DI-03, Contract Closeout**

**CPM-AAM-DI-09, Records Retirement**

**CPM-AAM-IP-02, Contractor Performance Information (FAR 42.15)**


CPM-AAM-IP-14, *Processing Change Orders and Requests for Equitable Adjustments*


DEAR 952.217-70, "Acquisition of Real Property," Department of Energy Acquisition Regulation, as amended.

DEAR 952.223-71, "Integration of Environment, Safety, and Health," Department of Energy Acquisition Regulation, as amended.


DOE M 450.4-1, Integrated Safety Management System Manual


FAR 4.804, *Closeout of Contract Files*

FAR Subpart 31.2, “Contracts with Commercial Organizations

Federal *Clean Air Act of 1970*

*Hazardous Waste Management Act of 1977*

Interface Control Documents


MGT-PM-DI-03, *Conduct of Engineering Oversight*


Performance Evaluation and Measurement Plan (PEMP)

Preliminary documented safety analysis, per facility


RL-ORP procedure *Litigation Management—Contractor*

State of *Washington Clean Air Act*

State regulations, environmental permits, and licenses

*Strom Thurmond National Defense Authorization Act for Fiscal Year 1999*

Tank Operation Contract

The Hanford Mission Support Contract DE-AC06-08RL14728


Waste compliance plans for the immobilized low-activity waste and immobilized high-level waste forms
## Table A-18-1

From Contract Section C, Deliverables (Table C.5-1.1). (18 pages)

<table>
<thead>
<tr>
<th>Item No.</th>
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<td>Technical Report on Oxidative Leaching</td>
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Table A-18-1. From Contract Section C, Deliverables (Table C.5-1.1). (18 pages)

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COR = contracting officer's representative.
DOE = U.S. Department of Energy.
ES&H = environmental, safety, and health.
IHLW = immobilized high-level waste.
ILAW = immobilized low-activity waste.
R&T = research and technology.
TBD = to be determined.
WTP = Waste Treatment and Immobilization Plant.

Legend Definitions:

A Approval — The deliverable shall be provided to DOE for review and approval. DOE will review the deliverable and provide comments in writing. Comments will be discussed through the partnering process and the contractor is required to provide written responses using review comment records. Documents shall be rewritten to incorporate all DOE mandatory comments. Once a deliverable or document has been approved by DOE, it shall be placed under change control and no changes to that document shall be made without DOE approval. All documents and deliverables that previously had a “K” designation and that were concurred upon by DOE shall be deemed “approved” by DOE.

C Review and Comment — The deliverable shall be provided to DOE for review and comment. DOE will have the option for reviewing the information and providing comment. The contractor shall respond to all written comments in a review comment records form. DOE comments that cannot be resolved in the appropriate partnering team shall be elevated to the Project Management Team for resolution.

COR Contracting Officer's Representative (M131)

I Information — The deliverable shall be provided for information purposes only. DOE will have the option of reviewing the information and providing comments through the partnering process. Such comments do not require resolution under the contract.

J Jointly Developed, Review and Comment — The interface control documents shall be jointly developed with DOE, the tank farm contractor, and Hanford Site contractors. The deliverable shall be provided to DOE for review and comment. DOE will have the option for reviewing the information and providing comment. The contractor shall respond to all written comments. DOE comments that cannot be resolved in the appropriate partnering team shall be elevated to the senior management for resolution.

M Monitor — The deliverable shall be developed with input from DOE. DOE will be highly involved as the deliverable is developed, and will monitor the progress of the deliverable. DOE comments shall be discussed in the partnering teams as the deliverable develops. If DOE direction is determined to be appropriate, DOE shall provide such direction in writing.


R Regulatory Deliverable Approval — Will be performed in accordance with Standard 7.