



**Purpose of Modification:**

The purpose of this modification is twofold and incorporates changes in Contract Section C, *Statement of Work*, and Contract Section J, *List of Attachments*. The changes made herein are as follows:

- Update Contract Section C, *Statement of Work*, to change directive references in accordance with changes incorporated in Contract Section J, *List of Attachments*, Attachment E, *List of Applicable Directives (List B-DEAR 970.5204.78)*; and
- Update the applicable directives in table in Contract Section J, *List of Attachments*, Attachment E, *List of Applicable Directives (List B-DEAR 970.5204.78)*.

These changes are made under the authority provided by Contract Clause I.117, *DEAR 970.5204-78 Laws, Regulations, and DOE Directives (JUN 1997)*, at no additional cost to the Government.

**Description of Modification:**

1. Under the authority of Contract Clause I.117, *DEAR 970.5204-78 Laws, Regulations, and DOE Directives (JUN 1997)*, Contract Section C, *Statement of Work*, Contract Clause C.3, *Interactions with the Waste Treatment and Immobilization Contractor*, paragraph (b), sub-paragraph (1), item (ix) is updated and the reference to DOE Order (O) 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, and DOE Manual (M) 413.3-1, *Project Management for the Acquisition of Capital Assets*, is replaced with DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. Contract Section C, *Statement of Work*, Contract Clause C.3, *Interactions with the Waste Treatment and Immobilization Contractor*, paragraph (b), sub-paragraph (1)(ix), is revised as follows:

FROM:

- (ix) Manage project progression through the critical decision process (DOE Order 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, and DOE Manual 413.3-1, *Project Management for the Acquisition of Capital Assets*) (M076);

TO:

- (ix) Manage project progression through the critical decision process (DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CRD) (M076) (271);

2. Under the authority of Contract Clause I.117, *DEAR 970.5204-78 Laws, Regulations, and DOE Directives (JUN 1997)*, the reference to DOE Order (O) 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, is replaced with DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CRD.

This change is incorporated in the following paragraphs of Contract Section C, *Statement of Work*, Contract Clause C.6, *Standards*, Standard 1, *Management Products and Controls*:

- Opening paragraph;
- Paragraph (a);
- Paragraph (b), sub-paragraph (3); and
- Paragraph (c), sub-paragraph (1).

Contract Section C, *Statement of Work*, Contract Clause C.6, *Standards*, Standard 1, *Management Products and Controls*, is deleted in its entirety and replaced in full as shown in Attachment 1 of this modification.

3. Under the authority of Contract Clause I.117, *DEAR 970.5204-78 Laws, Regulations, and DOE Directives (JUN 1997)*, Contract Section C, *Statement of Work*, Contract Clause C.6, *Standards*, Standard 5, *Commissioning*, paragraph (a), sub-paragraph (6) is revised as follows:

FROM:

- (6) Complete Critical Decision (CD) 4 in accordance with DOE Manual 413.3-1, *Project Management for the Acquisition of Capital Assets*. Prerequisites for CD-4 will be completed prior to Hot Commissioning. Post CD-4 activities shall be completed prior to completion of Project Closeout; and

TO:

- (6) Complete Critical Decision (CD) 4 in accordance with DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CRD. Prerequisites for CD-4 will be completed prior to Hot Commissioning. Post CD-4 activities shall be completed prior to completion of Project Closeout (271); and

4. Under the authority of Contract Clause I.117, *DEAR 970.5204-78 Laws, Regulations, and DOE Directives (JUN 1997)*, Contract Section C, *Statement of Work*, Contract Clause C.6, *Standards*, Standard 5, *Commissioning*, paragraph (k), is revised as follows:

FROM:

(k) Completion of Contract Workscope Requirements: The Contractor shall complete post- Critical Decision 4 activities, *Approve Start of Operations or Project Closeout*, in accordance with DOE M 413.3-1, *Project Management for the Acquisition of Capital Assets*.

TO:

(k) Completion of Contract Workscope Requirements: The Contractor shall complete post- Critical Decision 4 activities, *Approve Start of Operations or Project Closeout*, in accordance with DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CRD (271).

5. Under the authority of Contract Clause I.117, *DEAR 970.5204-78 Laws, Regulations, and DOE Directives (JUN 1997)*, the table in Contract Section J, *List of Attachments*, Attachment E, *List of Applicable Directives (List B-DEAR 970.5204.78)*, paragraph (b) is updated as follows:

- Replace DOE M 442.1-1, *Differing Professional Opinions Manual for Technical Issues Involving Environment, Safety, and Health*, Contractor Requirements Document (CRD), with DOE Order (O) 442.2, *Differing Opinions for Technical Issues Involving Environment, Safety, and Health*, CRD;
- Replace DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, CRD, with DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CRD; and
- Delete DOE M 413.3-1, *Project Management for the Acquisition of Capital Assets*.

The table in Contract Section J, *List of Attachments*, Attachment E, *List of Applicable Directives (List B-DEAR 970.5204.78)*, paragraph (b) is deleted in its entirety and replaced in full as follows:

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
06-AMD-050 (CCN 144548)	08/28/06	Office of Environmental Management Interim Guidance, "Safety Integration into Early Phases of Environmental Management Facility Design." (M084)	The letter is effective regardless of comment above at (b) (M175)
DOE/RL-88-21	10/01/96 12/21/99	Double-Shell Tank Unit Permit Application	Contract Clause C.6, Standard 7(e)(4)(vi)(B) & Contract Clause C.8, Specification 7, 7.2.1.4 and 7.2.2.1; Specification 8, 8.2.1.4

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
			and 8.2.2.1 (M175)
DOE/EM-0093	12/96	Waste Acceptance Product Specifications for Vitrified High Level Waste Forms (WAPS) Revision 2 (M114)	Contract Clause C.8, Specification 1, 1.2.1.4 and 1.2.2.1.1 (M175)
DOE/RL-94-02	06/2010	Hanford Emergency Management Plan (Revision 4, June 2010) (A197)	Contract Clause C.6, Standard 4(j) and Standard 7(e)(1) Table S7-1 (M175) Refer to Note 5 (A197)
DOE M 140.1-1B, CRD	03/30/01	Interface with Defense Nuclear Facilities Safety Board.	Contract Clause C.4 (d) (M175)
DOE O 142.3A, CRD	10/14/10	Unclassified Foreign Visits and Assignments Program. (M047) (M124) (204)	The order is effective regardless of comment above at (b) (M175)
<del>DOE O 205.1A, CRD</del>	12/4/06	<del>DELETED (M194)</del>	
<del>DOE M 205.1-2</del>		<del>DELETED (M175)</del>	
<del>DOE M 205.1-5, CRD</del>		<del>DELETED (M194)</del>	
<del>DOE M 205.1-6, CRD</del>		<del>DELETED (M194)</del>	
<del>DOE M 205.1-7, CRD</del>		<del>DELETED (M194)</del>	
<del>DOE M 205.1-8, CRD</del>		<del>DELETED (M194)</del>	
DOE O 206.1, CRD	01/16/09	DOE Privacy Program (235)	The order is effective regardless of comment above at (b)
DOE O 210.2, CRD	06/16/06	DOE Corporate Operating Experience Program (M077)	Contract Clause H.49 (M175)
DOE O 221.1A, CRD	04/19/08	Reporting Fraud, Waste, and Abuse to the Office of Inspector General. (M133)	Refer to Note 3 (M175)
DOE O 221.2A, CRD	02/25/08	Cooperation with the Office of Inspector General. (M133)	Refer to Note 3 (M175)
DOE O 226.1A, CRD	7/31/07	Implementation of Department of Energy Oversight Policy (M069) (M108)	Contract Clause H.46 (M175)
DOE O 231.1A	08/19/03	Environment, Safety, and Health Reporting (M033)	Contract Clause C.6, Standard 1(d)(5) and (6) (M175)
DOE M 231.1-1A, Change 2, CRD	06/12/07	Environment, Safety and Health Reporting Manual (M175)	Contract Clause C.6, Standard 1(d)(6) and Standard 7(e)(1) Table S7-1 (M175)
<del>DOE M 231.1-2, CRD</del>		<del>DELETED (256)</del>	
<del>SCRD M 231.1-2</del>		<del>DELETED (256)</del>	
SCRD O 232.2	8/30/11	Occurrence Reporting and Processing of Operations Information, Revision 1 (268)	Contract Clause C.6, Standard 1(d)(5) and (6).
<del>HFID 232-1B</del>		<del>DELETED (256)</del>	
DOE N 234.1, CRD	02/27/08	Reporting of Radioactive Sealed Sources (M130)	The notice is effective regardless of comment above at (b) (M175)

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
DOE O 241.1, CRD	08/17/98	Scientific and Technical Information Management	Contract Clause G.8(c) (M175)
DOE/RW-0333P	10/01/08	Quality Assurance Requirements and Description for the Civilian Radioactive Waste Management Program (QARD) – Revision 20 (M099) (M134)	Contract Clause C.6, Standard 2(a)(2)(v), Standard 5(d), and Standard 7(e)(3)(ii)(A) and Contract Clause C.8, Specification 1, 1.2.1.7, 1.2.2.1.1, and 1.3 (M175)
DOE O 350.1, Chg 3, CRD	02/23/10	Contractor Human Resource Management Program (M171) (M175)	Contract Clause H.37 (M175)
DOE/RW-0351	5/31/07	Waste Acceptance System Requirements Document (WASRD) - Revision 5 (M114)	Contract Clause C.6, Standard 2(a)(3)(vii)(E) and Standard 6(c)(2) and Contract Clause C.8, Specification 1, 1.2.1.3 and 1.2.2.1.1 (M175)
<del>DOE O 413.3A, CRD</del>	<del>07/28/06</del>	<del>DELETED (271)</del>	
<del>DOE M 413.3-1</del>	<del>03/28/03</del>	<del>DELETED (271)</del>	
DOE O 413.3B, CRD	11/29/10	Program and Project Management for the Acquisition of Capital Assets. Refer to Note 7 for implementation (271).	Contract Clause C.3, paragraph (b), sub-paragraph (1), item (ix), C.6, Standard 1, opening paragraph, (a), (b)(3) and (c)(1) and Standard 5(a)(6) and (k).
DOE O 414.1C, CRD	04/16/10	Quality Assurance (M066)	Contract Clause C.6, Standard 7(e)(3)(i) & (iv) (M175)
DOE O 420.1B, Chapter V	12/22/05	Facility Safety (245)	The order is effective regardless of comment above at (b)
DOE O 422.1, CRD	06/29/10	Conduct of Operations (207)	The notice is effective regardless of comment above at (b). Contractor shall implement consistent with CCN 229138.
DOE O 425.1D, CRD	04/16/10	Verification of Readiness to Start Up or Restart Nuclear Facilities (M033) (A190)	Contract Clause C.6, Standard 5(a)(5), (c)(6), (e)(2), (f), and (g) (M175)
DOE O 435.1, Chg 1, CRD	08/28/01	Radioactive Waste Management.	Implementation of this DOE CRD using the graded approach; approved by 04-WEC-004; CCN 081173 satisfies the comment above at (b). (M130) (M175)
DOE M 435.1-1	07/09/99	Radioactive Waste Management Manual	Contract Clause C.8, Specification 2, 2.2.1.13, 2.2.2.23, & 2.4 (M175)
DOE M 441.1-1, CRD	03/07/08	Nuclear Material Packaging	The manual is effective regardless of comment above at (b) (M130) (M175)
DOE O 442.1A & Supplemented Rev. 1, CRD	06/06/01	Department of Energy Employee Concerns Program (A029)	The order is effective regardless of comment above at (b) (M175)
<del>DOE M 442.1-1, CRD</del>		<del>DELETED (271)</del>	

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
DOE O 442.2, CRD	07/29/11	Differing Opinions for Technical Issues Involving Environment, Safety, and Health (271)	The order is effective regardless of comment above at (b) and implemented as described in CCN 246747.
DOE M 450.4-1, CRD	11/01/06	Integrated Safety Management System Manual.	Attachment 1 to Contract Modification M097 – Contractor Requirements Document (M097) (M175)
DOE M 470.4-1, CRD	08/26/05	Safeguards and Security Program Planning and Management (M136) (M171)	Refer to Note 1 (M175)
DOE M 470.4-2A, CRD	07/23/09	Physical Protection	Contractor shall implement consistent with 08-ESQ-116 (CCN 181839) and confirmed by CCN – 208288) (A164) (M175)
DOE M 470.4-4A	01/16/09	Information Security Manual (M145)	Refer to Note 2 (M175)
DOE O 471.3, CRD	4/9/03	Identifying and Protecting Official Use Only Information (M087)	Contract Clause H.50 (M175)
DOE M 471.3-1, CRD	4/9/03	Manual for Identifying and Protecting Official Use Only Information (M087)	Contract Clause H.50 (M175)
DOE O 475.1, CRD	12/10/04	Counterintelligence Program (M071)	Contract Clause C.6, Standard 8(c) (M175)
DOE/RW-0511, Volume I, Rev. 3	01/2007	Integrated Interface Control Document (IICD), High-Level Radioactive Waste and U.S. Department of Energy and Naval Spent Nuclear Fuel to the Civilian Radioactive Waste Management System (M114)	Contract Clause C.8, Specification 1, 1.2.1.10 and 1.2.2.1.1 (M175)
DOE O 551.1C, CRD	06/24/08	Official Foreign Travel. Refer to Note 4. (M141) (M175)	Contract Clause I.109 (M175)
DOE-HDBK-1092-2004, Appendix A	12/2004	DOE Electrical Safety Handbook. Refer to Note 6 (209)	The order is effective regardless of comment above at (b).
<del>RL/REG-2000-04</del>	<del>07/03</del>	<del>DELETED (215)</del>	
<del>DOE/ORP-2000-06</del>		<del>Deleted through Contract Modification M082 (M175)</del>	
DOE STD 3009	1994	Preparation Guide for DOE Nonreactor Nuclear Facility Safety Analysis Reports (Change Notice 3, March 2006) (A029) (M152)	Contract Clause C.6, Standard 9, Table S9-1 (M175)
DOE O 5480.20A, Change 1, CRD	07/12/01	Personnel Selection, Qualification, and Training requirements for DOE Nuclear Facilities (M152)	Contract Clause C.3(f)(6) (M175) (A190)

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
SCSP	5/9/06	Richland Regional Office Site Counterintelligence Support Plan Hanford Site - Bechtel National, Inc. (M071)	Contract Clause C.6, Standard 8(c) (M175)

Notes:

1. Implementation of DOE M 470.4-1, CRD includes the following Sections:
  - Section A, *Safeguards and Security Program Planning and Management*
  - Section F, *Performance Assurance Program*
  - Section G, *Survey, Review, and Self-Assessment Programs*
  - Section I, *Facility Clearances and Registration of Safeguards and Security Activities*
  - Section J, *Safeguards and Security Training Program*
  - Section K, *Safeguards and Security Awareness Program*
  - Section N, *Incidents of Security Concern*

Please refer to CCN 182640 for detailed information on the implementation of each section.
2. Contractor scope of DOE M 470.4-4A is limited to the OPSEC requirements listed in ORP Letter 08-ESQ-318 (CCN 192555) which states that the following actions are required:
  - Appoint an OPSEC Representative;
  - Ensure the OPSEC Representative attend Hanford OPSEC Working Group meetings on a quarterly basis;
  - Obtain OPSEC/Security Awareness Posters from Project Hanford Management Contracts Safeguards and Security Awareness Manager and ensure they are posted in BNI working areas; and
  - Annually conduct three OPSEC Reviews/Assessments of BNI work areas.
3. The Contractor shall implement DOE O 221.1, CRD and DOE O 221.2, CRD into all new subcontract awards beginning January 1, 2003, except for those acquisitions for commercial items and for any new acquisition awards under \$100,000. DOE O 221.1A, DOE and DOE O 221.2A, CRD shall be implemented into all new subcontract awards beginning October 01, 2008, using the same criteria. Flow down of the requirements of these DOE Order CRDs to Subcontractors using these criteria meets the intent of ensuring compliance with the DOE Order CRD requirements.
4. This Order included by Modification No. A029 and deemed to be the "subsequent version of the order in effect at the time of award" per DEAR 952.247-70.
5. The Contractor shall implement Rev. 4 (June 2010) of DOE/RL-94-02 over a period of one year as described in CCNs 207914 and 227444 (10-WTP-291).
6. The Contractor shall implement DOE-HDBK-1092-2004, Appendix A, as described in 10-WTP-327 (CCN 229364) and CCN 229141.
7. The Contractor shall implement DOE O 413.3B, as described in CCN 242792 and 12-WTP-0159.

6. **Contractor's Statement of Release:** In consideration of the Modification agreed to herein as complete equitable adjustment for the changes made through this modification, the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the changes as noted in this modification.

7. All other terms and conditions remain unchanged.

**Attachments**

1. **Section C, Contract Section C, Statement of Work, Contract Clause C.6, Standards, Standard 1, Management Products and Controls, conformed through Contract Modification No. 0271.**

**(End of Modification)**

Standard 1: Management Products and Controls

This Standard describes the required management products and controls. The Contractor shall provide all necessary management and technical information and support necessary to meet the requirements of U.S. Department of Energy (DOE) Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CRD, to enable DOE to meet the data requirements of the Integrated Planning, Accountability, and Budgeting System (IPABS), and to ensure transparency in project performance and efficiency in project execution. The Contractor shall also support the DOE Office of River Protection (ORP) in developing and maintaining the integrated River Protection Project (RPP) Baseline. All management and technical information developed under this Contract shall be accessible electronically by the Government (271).

(a) Baseline Description and Requirements:

The Contractor shall develop and maintain a contract-compliant integrated and traceable technical scope, schedule, and cost baseline for the Waste Treatment and Immobilization Plant (WTP) Project. The baseline shall be managed in accordance with the process documented in the Earned Value Management System Description (Table C.5-1.1, Deliverable 1.3) and the Baseline Change Control Program Procedure (Table C.5-1.1, Deliverable 1.11) consistent with the below concepts and provisions:

Variations will be managed and approved through the Contractor's Trend Process as defined in Deliverables 1.3 and 1.11. Variations are accrued following the realization of circumstances that could have plausibly been anticipated or mitigated by the responsible control account manager(s).

Baseline Change Proposals (BCPs) will be managed and approved through the Contractor's processes as defined in Deliverables 1.3 and 1.11. BCPs are processed when circumstances could not have plausibly been anticipated or mitigated by the responsible control account manager(s). BCPs are generated and approved at the Contractor's discretion with the below 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. These BCPs (for REAs) will change the Total Estimated Contract Cost and may become the basis for earning additional fee.

The baseline and management thereof shall comply with this standard; ANSI/EIA-748A-1998, *Earned Value Management Systems (EVMS)*; and DOE Order 413.3B, CRD. The baseline shall include (271):

- WTP Project technical requirements as delineated in (a)(1);
- Schedule to implement project work scope as described in (a)(2); and
- Project cost to implement project work scope on the schedule as described in (a)(3).

The technical scope, schedule, and cost baseline (WTP baseline) shall be maintained using a baseline change control process as further described in (a)(4).

(1) Technical Baseline: The Contract technical baseline is represented by a series of documents which define the basis for current cost or schedule estimates. Changes to these documents shall be evaluated for impact to project cost and/or schedule and captured by a baseline change proposal where necessary. The following documents shall be viewed collectively as the baseline technical scope for the cost/schedule control system:

- (i) Contract Statement of Work;

- (ii) Approved Functional Specification pursuant to Contract Standard 3, paragraph (b)(1);
  - (iii) Approved Basis of Design pursuant to Contract Standard 3, paragraph (b)(2);
  - (iv) Approved Authorization Basis pursuant to 10 CFR 830;
  - (v) Approved Operations Requirements Document (bolded text);
  - (vi) Approved Interface Control Documents;
  - (vii) Permit Requirements; and
  - (viii) Approved Level 2 Work Breakdown Structure (WBS) Dictionary Sheets.
- (2) Schedule Baseline: The WTP baseline schedule shall be an activity-based, logic-driven schedule. The schedule logic shall be integrated with a networked hierarchy containing detailed tasks necessary to ensure successful project execution. The schedule shall support networked summarization at Level 1, Project Summary Schedule, Level 2, Executive Level Schedule, Level 3, Project Intermediate Schedule, to the Level 4, Detailed Working Schedule. The scheduled activities shall be vertically traceable to the RPP Integrated Master Plan (IMP), the WBS, and EVMS control accounts. The WTP schedule shall be used to verify attainability of the contract level milestone defined in Contract Section F.1(b), to evaluate progress toward meeting program objectives through tracking Activity and Facility Milestones as outlined in Section B.4(c), and to integrate the program schedule activities with all related work activities and milestones.

The following requirements shall be addressed at the appropriate level within the schedule hierarchy:

- (i) Scheduling Requirements: The WTP schedule shall be developed using a 24-month rolling schedule concept which is statused monthly and extended semi-annually. The near-term schedule shall be more detailed than activities past the 24-month cutoff.
  - a. The schedule shall include all significant external interfaces and critical items from suppliers, teammates, or other detailed schedules that depict significant and/or critical elements and Government furnished equipment or information dependencies. The determination of significant and critical Government interface requirements shall be mutually defined and documented.
  - b. The schedule shall be updated according to the Contractor's management control system and shall be submitted no less frequently than monthly. The schedule may reflect data either as of the end of the calendar month or as of the Contractor's accounting period cutoff date, provided it is consistent and traceable to the Monthly Status Report.
  - c. The schedule shall contain discrete tasks/activities through contract completion including Contract milestones contained in Section B, Attachment B-2-C.
  - d. Monthly schedule analysis shall be performed to assess schedule progress to date and included as part of the monthly status report (see paragraph (d)(2)(v)b). The analysis shall include changes to schedule assumptions, variances above agreed thresholds to the baseline schedule, causes for the variances, potential impacts, and recommended corrective actions to minimize schedule delays. The

- analysis shall also identify potential problems and an assessment of the critical path and near-critical paths for the five subprojects and the overall contract.
- e. The schedule shall be created using a Critical Path Method (CPM), network capable Commercially Off-The-Shelf (COTS) scheduling software application. The schedule shall be delivered electronically in the native digital format (i.e., an electronic file produced within the Contractor's scheduling tool) as part of the monthly report.
  - f. The level of detail in the schedule (including number and duration of tasks/activities) shall follow the Contractor's Project Controls System Description, program directives, etc. A sequence of discrete tasks/activities in the network that has the longest total duration through each subproject and the overall WTP Contract shall be identified as the subproject and project critical paths, respectively.
- (ii) In addition, the Contractor shall develop the necessary modeling capability at a rough order of magnitude (ROM) level of accuracy to support "what-if" evaluations within five (5) working days of request. This modeling system shall provide model by dollars and reasonably represent planned expenditures by month for the first fiscal year and each fiscal year thereafter. Level of effort activities shall be added to the model as well as undistributed budget in planning packages so that each fiscal year can balance against known funding.
- (3) Cost Baseline: The WTP cost baseline is the latest DOE-approved Performance Measurement Baseline (PMB) and Total Allocated Budget (TAB) including any negotiated or directed changes and approved baseline change proposals, together with the following PMB supporting documentation:
- (i) Total contract cost and subproject costs including a summary description of facility design, process design, operational concept, and schedule.
  - (ii) Status of facility design, construction, and related procurements.
  - (iii) Description of the methodology of how the estimate was developed.
  - (iv) A WBS dictionary which includes a detailed technical description of the scope to be performed at the WBS level; 2 as defined in paragraph (b)(3)(ii).
  - (v) Backup materials necessary to understand the estimate shall be agreed to prior to submittal of the estimate. Examples include quantity takeoffs, equipment lists, detailed specifications, plans and drawings, calculations, databases used, historical data, cost estimating relationships, and actual quotes.
  - (vi) Details of distributable costs, methods of allocation, and a description of the work covered by distributable costs and how they were estimated and developed.
  - (vii) Explanation and description of Defense Contract Audit Agency (DCAA)-validated overhead and general and administrative rates used.
  - (viii) Examples of how standard base rates are burdened to arrive at estimated hourly rates.
  - (ix) Definitions and delineation for and categorization of costs into labor, material, equipment, travel, taxes, contingency, and other.
  - (x) Full delineation of any use of productivity or related factors that clearly identifies when and where used and basis for the utilization.

- (xi) Written analysis of how cost and schedule contingency was determined. This includes all pertinent information necessary to understand and perform the calculations.
  - (xii) Estimate history; if the current estimate is a revision to an earlier estimate, provide reconciliation between estimates.
  - (xiii) Basis of escalation.
  - (xiv) Subcontractor cost estimates, traceable to the WTP cost estimate and WBS, if available, shall be provided upon request.
  - (xv) Risk mitigation plans and activities.
- (4) Baseline Change Control Process: The baseline change control process will be rigorous and disciplined to ensure that the scope, schedule and cost baseline is accurate, up-to-date, and capable of providing meaningful data and information. In concert with DOE, the Contractor shall develop and implement a Change Control Program Procedure (Table C.5-1.1, Deliverable 1.11). The procedure shall be submitted to DOE for approval prior to implementation and shall address:
- (i) Establishing and maintaining a WTP change control board (CCB).
  - (ii) Authority levels and processes for approving variances and baseline change proposals.
  - (iii) Minimum BCP documentation requirements.
  - (iv) Cost and schedule estimate requirements.
  - (v) Advance Work authorization process.
  - (vi) Incorporating changes into the baseline EVMS cost and/or schedule modules.
  - (vii) Budget source and impact on project risk.
  - (viii) BCP impact on facility BCWS profiles.
  - (ix) Categorization methods for BCPs that clearly differentiate between in-scope and out-of-scope changes and variances.
- (5) Spending at Variance: In some circumstances, the Contractor may exceed authorized budget levels for a specific control account when a baseline change is not warranted, such as cost overruns. The Contractor's change control system shall track and manage changes in estimates at completion (EAC) as a separate but integrated part of the overall change control process. Change control records shall maintain clear distinction between approved baseline and EACs.
- (6) Reserved (A192)

(7) Project Funding:

The Contractor shall use the DOE-approved WTP Project cost baseline as the basis for the subproject and total project funding profile that is required to complete the Contract scope. The WTP funding profile shall comply with Congressional appropriations. The funding profile shall include engineering, procurement, construction, and commissioning baseline costs (including management reserve as well as DOE contingency), and estimated fees that will be paid. The Contractor shall provide on a monthly basis, Form DD 1586, Aug 96, DID-MGMT-81268, Contract Funds Status Report (CFSR), or approved equal for each control point (Table C.5-1.1, Deliverable 1.10)

Identification of management reserve shall be reported monthly and shall include the impact on the life cycle of the Contract.

(b) Controlled Management Documents: The following documents shall be submitted for approval by DOE in accordance with the schedule in Table C.5-1-1, Deliverables:

- (1) Interface Management Plan: DOE (as lead), the Tank Farm Contractor, and the WTP Contractor shall develop and implement an interface management plan (Table C.5-1.1, Deliverable 1.4). The interface management plan shall:
- (i) Recognize the DOE role as the owner of the WTP and as the final decision authority for any interface issues that are not resolved between the other parties.
  - (ii) Define the scope of each interface and provide a brief description of the required deliverables (products, documents, procedures, services, etc.) through interface control documents (ICD).
  - (iii) Define organizational points of contact for participants.
  - (iv) Define interface requirements, controls, and applicable source documents for each interface.
  - (v) Involve appropriate RPP organizations and Hanford Site contractors in the integration, review, and approval process of ICDs and implement changes to ICDs through the appropriate change control process and, if necessary, contract changes.
  - (vi) Involve individuals with the appropriate level of organizational responsibility and authority to ensure the interface is implemented and functioning. DOE/ORP will identify points of contact for each interface document.
  - (vii) Identify, track, and elevate issues for management review in the Monthly Status Report.
- (2) Project Execution Plan (PEP): The Contractor shall prepare a PEP that describes the approach for managing and controlling the project at the Contractor level. The PEP shall be approved by DOE (Table C.5-1.1, Deliverable 1.2), and shall focus on Contractor policies, methods, and approaches for the integration of project scope, schedule, and cost information in ensuring compliance with Contract and regulatory requirements. The Contractor PEP shall address the approach the Contractor will use to implement the requirements pertaining to project control processes including:
- (i) Management structure, responsibilities, and authorities;
  - (ii) Integrated safety management;
  - (iii) Quality assurance;

- (iv) Safeguards and security;
- (v) Permitting;
- (vi) Construction acceptance, test, and evaluation;
- (vii) Acquisition planning;
- (viii) Contract management;
- (ix) Systems engineering;
- (x) Configuration management;
- (xi) Waste Treatment process change control;
- (xii) Information management and reporting;
- (xiii) External Interface management;
- (xiv) Work management;
- (xv) Risk management;
- (xvi) Construction project management; and
- (xvii) Communications and stakeholder involvement.

- (3) Control System Description: The Contractor shall provide for DOE approval a Earned Value Management System Description meeting the requirements of DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, CRD; and ANSI/EIA-748-A-1998, *Earned Value Management Systems (EVMS)* (Table C.5-1.1, Deliverable 1.3). The system description shall describe the management processes and controls that will be utilized to manage and control work and complete contract requirements. Upon approval by the Contracting Officer, the Contractor shall fully implement the project control system. The Contractor shall obtain Contracting Officer approval prior to implementing materially significant changes to the system description. The Contracting Officer may direct compliance reviews to determine whether the Contractor is operating in accordance with the approved system description and producing accurate planning, budgeting, reporting, and change control data. The Contractor shall provide the Contracting Officer or designated representatives with access to all pertinent records, data, and plans for purposes of initial approval, approval of proposed changes, and the ongoing operation of the project control system (271).

The Earned Value Management System Description shall, at a minimum, include:

- (i) A Work Breakdown Structure (WBS) including companion "dictionary" descriptions of work for each Level 2 WBS element. The WBS shall provide the basis for all project control system components, including estimating, scheduling, budgeting, performing, managing, and reporting, as required under this Contract.
- (ii) The authorized contract Level 2 WBS for this project is as follows:

WBS	TITLE
1	WTP Contract DE-AC27-01RL14136
1.01	Pretreatment
1.02	Low-Activity Waste
1.03	High-Level Waste
1.05	Balance of Facilities
1.06	Analytical Laboratory
	Deleted
1.90	Shared Services

- (iii) The organizational breakdown structure with identification of key management positions. A control account shall be assigned to a manager with responsibility and authority to plan and budget the work, and control the resources and work activities within the approved technical, schedule, and cost baselines. The Contractor is also responsible to report status to allow complete rollup of technical, schedule, and cost performance for current reporting periods, cumulative to-date, and at-completion. The Contractor shall maintain and provide a current list of Control Account Managers.
- (iv) A description of the technical scope, cost, and schedule baseline development process, and the hierarchy of documents that will be used to describe and maintain that baseline.
- (v) Documentation of the process the Contractor intends to use for document control, configuration control, and change control.
- (vi) A brief summary of any supporting project control procedures that will be used.

(c) Risk Management:

- (1) The Contractor shall implement the risk management process defined in the Contractor's PEP, and DOE Order 413.3B, CRD. The Contractor shall provide a Baseline Risk Plan (Table C.5-1.1 Deliverable 1.6) documenting Contractor budget base risks (scope, schedule, and cost) for DOE approval. The Baseline Risk Plan shall identify the major risks to completing the project within the approved contract baseline, the Contractor's risk management strategies, and mitigation action plans. The Contractor shall submit annual updates of the status of the WTP Baseline Risk Plan. The Baseline Risk Plan shall meet the following requirements (271):
  - (i) Project risks shall be identified along with their probabilities and consequences.
  - (ii) Risks identified as Critical (Critical Risk List) shall be evaluated with each submittal for change in the unmitigated and residual risk levels.
  - (iii) Project risks shall be identified by facility. (A151)
- (2) The Contractor shall provide a monthly status of work scope actions directly attributed to DOE-owned risks (Technology, Programmatic, and Operational). The Contractor shall also support the identification, categorization, and development of risk-handling strategies for newly identified DOE-owned risks, and support the annual update to the RPP Risk Management Plan as requested by DOE.
- (3) Risk and decision management activities, for DOE owned risks, shall be coordinated on a continuing basis with DOE (as lead), Tank Farm Contractor, and

Hanford Site contractors. Contractor risk analysis information pertaining to "cross-cutting" decisions shall be communicated to DOE, the Tank Farm Contractor, and Hanford Site contractors, including recommendations as to who should have the lead for managing each risk. The Contractor shall document risks associated with ICDs and prepare issue resolution plans for DOE approval.

- (4) The Contractor shall include forecasts of expected changes to risk assessment status in the Monthly Status Report (Table C.5-1.1, Deliverable 1.7).
- (d) Project Reporting: The Contractor shall develop a reporting system that reports project performance on the technical scope, schedule, and cost profile. The requirements and procedures for this system shall be defined in the Earned Value Management Systems Description. The following routine reports are required:
- (1) Monthly Status Report: The Contractor shall prepare a monthly status report representing the prior month's performance and transmit it to DOE by the first Wednesday (M147) of the second month following data cutoff (Table C.5-1.1, Deliverable 1.7). The Monthly Status Report shall be a written report that includes, but is not limited to, the following:
- (i) Project manager narrative assessment;
  - (ii) Safety statistics;
  - (iii) Quality issues;
  - (iv) Significant accomplishments and progress towards completion of project milestones and objectives;
  - (v) Monthly summarized earned value analysis for WBS Level 1;
  - (vi) Reserved (A192)
  - (vii) Potential problems, impacts, and alternative courses of action; for example staffing issues, assessment of the effectiveness of actions taken previously for significant issues, or the monitoring results of recovery plan implementation;
  - (viii) Status of decisions, including DOE decisions, and information requirements for those decisions;
  - (ix) Change control section that summarizes the scope, technical, schedule and cost impacts resulting from approved and implemented as well as proposed baseline change actions;
  - (x) Project and subproject cost avoidance actions taken;
  - (xi) Forecasted changes to last risk assessment;
  - (xii) Six (6)-month critical path look-ahead and milestone (Activity, Facility, and Contract level milestones) at Level 2 WBS;
  - (xiii) Report of proposed changes that impact DOE, site interfaces, or Contract level milestones; and
  - (xiv) Single driving critical path analysis derived from Level 4 Schedule for WBS 1 and 2.

- (2) Contract Performance Report: The Contractor shall prepare monthly EVMS information reports by WTP Project and subproject in the listed Office of Management and Budget (OMB) Contract Status Report formats (DID-MGMT-81466) or equivalents, representing the prior month's performance and transmit the report to DOE by the last Wednesday of the month following data cutoff (Table C.5-1.1, Deliverable 1.10). Reporting requirements below shall be reviewed on an annual basis and necessary adjustments will be authorized by the Contract Officer.
- (i) Format 1, DD Form 2734/1, Mar 05, Work Breakdown Structure (WBS);
    - a. At Level 2 WBS, Control Account Level (CA)
  - (ii) Format 2, DD Form 2734/2, Mar 05, Organizational Categories;
    - a. At Level 2 Organizational Breakdown Structure (OBS), Level 3 OBS, CA
  - (iii) Format 3, DD Form 2734/3, Mar 05, Baseline;
    - a. At the Control Account Level by Contract changes, management reserve application, and internal replanning categories
  - (iv) Format 4, DD Form 2734/4, Mar 05, Staffing;
    - a. At Level 2 Organizational Breakdown Structure (OBS), Level 3 OBS, CA
  - (v) Format 5, DD Form 2734/5, Mar 05, Explanations and Problem Analysis;
    - a. Variance Analysis in accordance with the following thresholds:
      - i. At the Control Account Level
        - (a) Current Period Variance: \$250K
        - (b) Cumulative Variance: +/- 10 percent or \$1,000K, whichever is less
        - (c) Variance at Completion: +/- 10 percent or \$5,000K, whichever is less
      - b. Schedule analysis in accordance with Data Item Description DI-MGMT-81650, Integrated Master Schedule:
        - i. WBS Level 2 critical paths against construction completion: < 0 days total float; critical paths addressed through the monthly report (paragraph (1)(xiv)) do not have to be duplicated in Format 5.
        - ii. Progress against milestones; performance against milestones addressed through the monthly report (paragraph (1)(viii)) do not have to be duplicated in Format 5.
        - iii. Performance against planned system turnover and startup sequence
        - iv. Provide analysis native files of the following:
          - 1. The schedule activities that have slipped six (6) months (relative to their corresponding baseline activity) OR lost 50 percent of their float from the current baseline schedule.
          - 2. An analysis of the activities meeting the above criteria AND have less than or equal to 100 days of float in the current schedule will be provided in the CPR format 5 as well as electronically.

3. An Early Start and Early Finish stepchart metrics will be provided that shows the number of activities in the current schedule that have moved outside their baseline schedule completion year, the number of activities that have remained in their baseline schedule completion year, and the metrics from paragraph 1 above.
  4. Graphical presentation of the number of activities with less than 100 days float in the current schedule compared to the number of activities with less than 100 days float in the baseline through completion of the project.
  5. All graphical data shall be provided in tabular form.
  6. Graphical presentation of cumulative number of baseline activities scheduled to be complete and number of those activities that did not complete.
- (vi) DD Form 1586, Aug 96, DID MGMT-81268, Contract Funds Status Report or approved equal for each control point.
- (3) Baseline Revisions and Data Maintenance Report: The Contractor shall prepare monthly reports that document and reconcile the current baseline (scope, schedule and budget elements) with the project baseline established through the May 2006 submittal of the WTP Project Baseline update (Table C.5-1.1, Deliverable 1.5) and transmit it electronically to DOE by the last Wednesday of the month following data cutoff (Table C.5-1.1, Deliverable 1.12). At a minimum, this report shall include logs and metrics that track and trend change activity by WBS Level 2 and OBS Level 3, Control Account. Include CPR Format 3 detail, Contract Budget Base Log; Performance Measurement Baseline Log; and Baseline Change Proposal Log.
- (4) Electronic Data: Earned value data provided via compact disc for the following: (a) Engineering Performance and Progress Report data files; (b) Quantity Unit Rate Report data files; (c) COBRA data files and reports; (d) baseline schedule; (e) current schedules; (f) Cost and Commitment Log; (g) Equipment Management System database; (h) Inception to Date Report for Permanent Plant Equipment Awards; (i) Bechtel Estimating Tool Kit (BETK); (j) Commodity Curves; (k) Special Purpose Charge Code Activity Log for all Not to Exceed Contracting Officer Authorizations; (l) Earned Purchase Order Value (EPOV) data; (m) Engineering Job Hour Variance Analysis Reports; (n) Work Package variance analyses, as available; and (o) Area and Project Review presentation packages. Earned value data is to be provided on the last Wednesday of the month following the data cutoff to the Contracting Officer and the Contracting Officer's Representative (Table C.5-1.1, Deliverable 1.12). (A151)
- (5) Occurrence Reporting: The Contractor shall adhere to DOE Order 232.2, *Occurrence Reporting and Processing of Operations Information*, Supplemental Contractor Requirements Documents (SCRD), with Hanford Site-specific requirements and methods for notification (Table C.5-1.1, Deliverable 1.8). The Contractor shall also adhere to the requirements of the ORP Supplemental (S) CRD to DOE Order 232.2 **(256)**.

- (6) Environment, Safety, and Health Reporting: In addition to the *Occupational Safety and Health Act of 1970* and the *Price Anderson Amendments Act of 1988* (10 CFR 820) reporting requirements, the Contractor shall report all information specified in DOE Order 231.1A. The process and form of reporting will meet the requirements of DOE Manual 231.1-1A, Change 2, *Environment, Safety and Health Reporting Manual*. The Contractor process will specify this requirement in contracts down to the lowest-tier subcontractor. The Contractor process will accumulate and provide a single report responding to requirement information for both the Contractor and all subcontractors (Table C.5-1.1, Deliverable 1.9). For occurrence reporting the Contractor shall adhere to the requirements of the Supplemental Contractor Requirements Document (SCRD) of DOE Order 232.2 (256).
- (7) Accident Investigation: The Contractor and, as necessary, all subcontractors shall support accident investigations for accidents that may occur during Contractor activities. The Contractor and all its subcontractors shall establish and maintain readiness to respond to accidents, mitigate potential consequences, assist in collecting and processing evidence, and assist with the accident investigation. This shall include preserving the accident scene and providing support to the accident investigation board.
- (8) Reserved (A192)
- (9) Electronic Data Upload to PARS II: Each month the contractor shall upload WTP performance data to the new DOE Project Assessment and Reporting System (PARS II), using a DOE-provided data extractor for cost and schedule data, by the last workday of the month following the fiscal month end, for the fiscal month period. Change Control and variance analysis data will be provided to PARS II by an upload of a Portable Document Format (PDF) of the appropriate monthly reports for the fiscal month period as well.