

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE 1 OF 2 PAGES
2. AMENDMENT/MODIFICATION NO. 456	3. EFFECTIVE DATE (M/D/Y) See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY U.S. Department of Energy Office of River Protection P. O. Box 450, MS H6-60 Richland, WA 99352	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code) Bechtel National, Inc. 2435 Stevens Center Place Richland, WA 99354		<input type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
		<input type="checkbox"/>	9B. DATED (SEE ITEM 11)
		<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ ORDER NO. DE-AC27-01RV14136
		<input checked="" type="checkbox"/>	10B. DATED (SEE ITEM 13) December 11, 2000
CODE 396A5	FACILITY CODE 153392068		

11. THIS ITEM APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE DATE AND HOUR SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and amendment and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS SET FORTH IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR 43.103(b).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF:
<input checked="" type="checkbox"/>	D. OTHER (Specify type of modification and authority) Clause B.8 – Award Fee Administration, (c) Fee Negotiations

E. IMPORTANT: Contractor is not, is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Reference Continuation Page(s)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Valerie McCain Project Director		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ronald E. Cone, Jr. Contracting Officer	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 28 May 19	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED 5-29-2019

The purpose of this modification is as follows:

Incorporate 2019 Performance Evaluation and Measurement Plan (PEMP), Rev. 2 into Section J, *List of Attachments*, of the contract.

Modification Description:

1. Contract Section J, *List of Attachments*, Attachment R, *Performance Evaluation and Measurement Plan*, is deleted in its entirety and replaced in full to incorporate the 2019, Rev. 2 PEMP. The revised Contract Section J, *List of Attachments*, is attached.
2. All other terms and conditions remain unchanged.

(End of Modification)

Attachment 1: Contract Section J, *List of Attachments*

**SECTION J
LIST OF ATTACHMENT**

SECTION J
LIST OF ATTACHMENTS
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SECTION J – LIST OF ATTACHMENTS
ATTACHMENT A – LIST OF ACRONYMS

The following list of acronyms may be used in this contract.

ACWP	Actual Cost of Work Performed
ADR	Alternative Dispute Resolution
AFL-CIO	American Federation of Labor-Congress of Industrial Organizations
ALARA	As Low As Reasonably Achievable
ASME	American Society of Mechanical Engineers
ANSI	American National Standards Institute
BCWP	Budgeted Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
B&R	Budgeting and Reporting
CD-ROM	Compact Disc-Read Only Memory
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	<i>Code of Federal Regulations</i>
CO	Contracting Officer
COR	Contracting Officer Representative
CPI	Cost Performance Index
CPIF	Cost Plus Incentive Fee
CRD	Contracts Requirements Document
CSPI	Cost and Schedule Performance Index
DEAR	<i>Department of Energy Acquisition Regulation</i>
DFLAW	Direct-Feed Low-Activity Waste
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
DQO	Data Quality Objective
ECOLOGY	Washington State Department of Ecology
EMR	Experience Modification Rate
EPA	U.S. Environmental Protection Agency
EPCRA	<i>Emergency Planning and Community Right-To-Know Act of 1986</i>
ERISA	<i>Employee Retirement Income Security Act of 1974</i>
ES&H	Environment(al), Safety, and Health
ESQ&H	Environment(al), Safety, Quality and Health
FAR	<i>Federal Acquisition Regulation</i>
FOCI	Foreign Ownership, Control or Influence
FY	Fiscal Year
HCA	Head of the Contracting Activity
HLW	High-Level Waste
HUBZone	Historically Underutilized Business Zone
HWMA	<i>Hazardous Waste Management Act</i>
ICD	Interface Control Document
ISMS	Integrated Safety Management System
JOBBS	Job Opportunities Bulletin Board System
LAW	Low-Activity Waste
LDR	Land Disposal Restrictions
MEPP	Multiple Employer Pension Plan
MS	Mail Stop
MSDS	Material Safety Data Sheet
MTG	Metric Tons of Glass
NEPA	<i>National Environmental Policy Act of 1969</i>
NQA	Nuclear Quality Assurance
NOC	Notice of Construction
NOV	Notice of Violation

NOAV	Notice of Alleged Violation
NRC	Nuclear Regulatory Commission
NTE	Not to Exceed
OCI	Organizational Conflict of Interest
OPSEC	Operations Security
ORP	U.S. Department of Energy, Office of River Protection
OSHA	Occupational, Safety and Health Administration
PBS	Project Breakdown Structure
PSD	Prevention of Significant Deterioration
PAAA	<i>Price Anderson Amendments Act of 1988</i>
PL	Public Law
PCB	Polychlorinated biphenyls
PPA	<i>Pollution Prevention Act of 1990</i>
ppm	Parts Per Million
QARD	Quality Assurance Requirements and Description for the Civilian Radioactive Waste Management Program
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RFP	Request for Proposal
RL	U.S. Department of Energy, Richland Operations Office
ROD	Record of Decision
RPP	River Protection Project
SAS	Safeguards and Security
SEB	Source Evaluation Board
SF	Standard Form
SIC	Standard Industrial Classification
SIL-2	Safety Integrity Level – 2
SPI	Schedule Performance Index
SRD	Safety Requirements Document
TBD	To Be Determined
TIN	Taxpayer Identification Number
TPA	<i>Hanford Federal Facility Agreement and Consent Order</i> (also known as Tri-Party Agreement)
TRU	Transuranic (waste)
TSCA	<i>Toxic Substances Control Act of 1976</i>
TSR	Technical Safety Requirements
UCNI	Unclassified Controlled Nuclear Information
USC	United States Code
WAC	Washington Administrative Code
WBS	Work Breakdown Structure
WDOH	Washington State Department of Health
WTP	Waste Treatment and Immobilization Plant

**SECTION J – LIST OF ATTACHMENTS
ATTACHMENT B**

Reserved

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT C
GOVERNMENT-FURNISHED PROPERTY AND GOVERNMENT-FURNISHED EQUIPMENT

Government-Furnished Property and Government-Furnished Equipment as referenced in Section C.9,
“Interface Control Documents.”

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT D – SMALL BUSINESS SUBCONTRACTING PLAN

Attachment to
CCN 290519

Attachment

Waste Treatment Plant Project
Small Business Subcontracting Plan

6 Pages
(including coversheet)

**Waste Treatment Plant Project
 SMALL BUSINESS SUBCONTRACTING PLAN**

1. Name of Prime Contractor: Bechtel National, Inc. (BNI)
 Address: 2435 Stevens Center Place
 Richland, WA 99354

2. Prime Contract Number: DE-AC27-01RV14136
 Total Estimated Contract Cost (TECC): \$14,062,312,153
 Contract Period of Performance: 12/11/2000 through 12/31/2022
 Place of Performance: Hanford Site, Richland, WA

Description of Contract Requirements: Bechtel National, Inc. (BNI) is leading a project to design, build, and start up the world's largest complex of waste treatment facilities. The plant will use a process known as vitrification to immobilize some of the 56 million gallons of chemical and radioactive waste now stored in Hanford's 177 aging tanks. The Project team is divided into Engineering, Construction, Operations, and Business areas.

In execution of BNI's responsibilities under the contract for the Hanford Tank Waste Treatment and Immobilization Plant (WTP) Project, BNI will comply with Public Law 95-507, FAR 52.219-8, and FAR 52.219-9 to maximize the utilization of small business (SB) concerns for purchasing goods and services. In compliance with DOE Acquisition Letter 2005-06, dated 3/11/05, the subcontracting base excludes subcontracts involving performance outside of the United States and purchases from Bechtel Corporation and its affiliates. Data sources will be the Bechtel Procurement System (BPS), the B-Card System, and the Bechtel Accounts Payable System.

The following plan provides the WTP Project's Small Business Subcontracting Plan as a percent of the total planned subcontracting effort and the subcontracting effort available:

Total estimated dollars available for subcontracting: \$5,624,924,861 (40% of TECC)

Category	Subcontracting Planned Dollar Amount	Percentage of Total Estimated Subcontracting Effort
Total planned and available for subcontracting to SB concerns	\$2,272,469,643	40.4%
Total planned and available for subcontracting to Small Disadvantaged Business (SDB) concerns (included in SB concern numbers)	\$196,872,370	3.5%
Total planned and available for subcontracting to Woman-Owned SB (WOSB) concerns (included in SB concern numbers)	\$224,996,994	4.0%
Total planned and available for subcontracting to Historically Underutilized Business Zone (HUBZone) SB concerns (included in SB concern numbers)	\$89,998,797	1.6%
Total planned and available for subcontracting to Native American Owned (NAB) concerns (includes both Large Business (LB) and SB NABs; SB NAB number are included in SB concerns; LB and SB NAB numbers are included in SDB concerns)	\$56,249,248	1.0%
Total planned and available for subcontracting to Veteran-Owned SB concerns (included in SB concern numbers)	\$281,246,243	5.0%
Total planned and available for subcontracting to Service-Disabled Veteran-Owned SB concerns (included in SB concern numbers)	\$8,437,387	0.15%
Total planned and available for subcontracting to Washington and Oregon-based businesses (includes large and small businesses)	\$1,968,723,701	35.0%

3. Potential Subcontracting Opportunities for Small Business

Items to be subcontracted under this contract and the types of business supplying them are:

Subcontracting Items	Large Business	Small Business	Disadvantaged Small Business	Woman-Owned Small Business	HUBZone Small Business	Veteran-Owned Small Business	Service-Disabled Veteran-Owned
Construction	X	X	X	X	X	X	X
<i>Roofing/Siding</i>	X	X	X			X	
<i>Architectural Specialties/Casework</i>	X	X	X	X		X	
<i>NDE/Other Testing</i>	X	X					
<i>Equipment/Piping Insulation</i>	X	X	X	X			
<i>Surfacing/Paving</i>	X						
<i>Surveying</i>	X	X	X	X	X	X	
<i>Elevators</i>	X						
<i>Gas Systems</i>	X						
<i>Transportation/Freight</i>	X	X					
<i>Misc. Construction Services</i>	X	X	X	X	X	X	X
<i>Misc. Construction Equip.</i>	X	X	X	X	X	X	X
Pipe/Valve/Fittings	X	X	X	X	X	X	X
Civil/Structural/Architectural	X	X	X	X	X	X	
<i>Concrete Anchors</i>	X	X		X	X		
<i>Fabricated Metal Embeds</i>	X						
Electrical	X	X	X	X	X	X	
<i>Fiber Optic/Power Cable</i>	X	X	X	X		X	
<i>ITS Fused Panels</i>	X						
<i>Through Wall Lighting</i>	X	X				X	
Instrumentation & Controls	X	X	X	X	X	X	
<i>Laboratory Equipment</i>	X	X	X	X	X	X	
<i>Flow Instruments</i>	X	X					
<i>Process Gauges</i>	X	X					
<i>Instrument Hoses</i>	X	X	X	X			
<i>Transmitters</i>	X	X					
<i>Cesium/Air/Seismic/Contamination Monitors</i>	X	X		X		X	
Jumpers/Melters	X	X	X	X		X	
<i>Rigid Process Jumpers/Fab</i>	X						
<i>Pulse Pot Frames</i>	X						
<i>Gaskets/Connectors</i>	X	X	X	X		X	
<i>Heat Exchangers</i>	X	X	X	X		X	
Mechanical/HVAC	X	X	X	X	X	X	X
<i>Cranes/Lift Beams</i>	X	X					
<i>Pressure Vessels/Pumps</i>	X	X	X	X	X	X	X
<i>Metal Fabrication</i>	X	X	X	X	X	X	X
<i>Piping Racks/Specialty Items</i>	X	X		X	X	X	X
<i>Chiller Plant/Cooling Tower</i>	X	X	X	X	X	X	X
<i>Bulges/Absorbers/Tanks</i>	X	X	X	X	X	X	X
<i>HEPA/Inline Filters</i>	X	X		X		X	
<i>Demisters/Humidifiers</i>	X	X					
<i>Expansion Joints/Compressors</i>	X	X		X			
<i>Chemicals/Storage</i>	X	X	X			X	X
Technical/Engineering Services & Office Products	X	X	X	X	X	X	X

4. Method Used to Develop Subcontracting Goals

The method used to develop the subcontracting goals for small business (SB), small disadvantaged business (SDB), woman-owned small business (WOSB), HUBZone small business (HUBZone), veteran-owned small business (VOSB), and service-disabled veteran-owned small business (SDVOSB) concerns is described as follows:

To establish the subcontracting goals and commitments, the WTP Project gathered available Project information, forecasted probable acquisition needs, and analyzed Project estimates. The Project also used its collective DOE experience to determine potential requirements and contingencies. The Project's subcontracting goals are both realistic and attainable. The goals will be reached by:

- Utilizing acquisition procedures to ensure participation by small business concerns
- Requiring the inclusion of participation by appropriate small business concerns as a proposal/bid requirement in future procurements.

5. Methods Used to Identify Potential Sources for Solicitation

The method used to identify potential sources for solicitation purposes is as follows:

- Utilize the System for Award Management (SAM.gov) and the Small Business Administration's Dynamic Small Business Search Database.
- Utilize Bechtel's Global Supplier Information System (GSIS).
- Coordinate with other Hanford Site Prime Contractors to seek information on small, small disadvantaged, woman-owned, HUBZone, veteran-owned, and service-disabled veteran-owned small businesses.
- Coordinate with the State and Regional Small Business Administration representatives and resources.
- Participate in various regional small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small businesses trade associations.
- Sponsor and participate in trade fairs to inform small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small businesses about upcoming procurement opportunities.

6. Indirect Costs

Indirect costs are () are not (X) included in the above goals.

7. Administrator of Small Business Subcontracting Plan

The following individual will administer the subcontracting program:

Name: Frank R. Salaman, Acquisition Services Manager
Address: 2435 Stevens Center Place
Richland, WA 99354
Telephone: (509) 371-9561
Email: frsalama@bechtel.com

This individual's specific duties, as they relate to the firm's subcontracting program, are as follows. General overall responsibility for reviewing and monitoring execution of the plan including but not limited to:

- Ensure that source lists of potential subcontracts for which goals are established herein are maintained.
- Ensure that procurement packages are structured to permit small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business concerns to participate to the maximum extent possible.
- Seek out other SB concerns through the use of mass media tools when the number of prospective sources is not adequate.
- Mentor SBs currently under subcontract, enhancing their ability to provide timely, cost-effective, and quality services.
- Attend SB training, monitor program changes to ensure compliance – review, revise, amend applicable procedures.

- Advise other personnel of the purposes of this program and ensure adequate support by all concerned.
- Maintain records showing BNI's performance compared with the goals established herein and submit information on the forms specified in the contract in a timely manner.
- Establish and maintain a relationship with the Small Business Administration and representatives to obtain assistance in finding competent small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business concerns.
- Coordinate with other Hanford Site Prime Contractors to secure data on small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small businesses and their capabilities.
- Report to the WTP Project Director on the progress made towards meeting the Small Business Subcontracting Plan goals and identification of action items to continuously improve on the plan.

8. Implementation

The following efforts will be made to assure that small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business concerns will have an equitable opportunity to compete for subcontracts.

- Identify known potential sources as large concerns, small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business concerns.
- Include small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business concerns in Request for Proposals where such concerns are known to exist and are qualified to supply the item(s) or service being procured.
- Assist all small business concerns in providing management counseling on request.
- Provide sufficient bid solicitation time for preparation of proposals, quantiles, specification, and delivery schedules to facilitate participation.
- Participate in small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business trade fairs and conferences. Provide promotional activities which increase community awareness of subcontracting opportunities.
- Prepare work scopes to develop opportunities which can be bid and executed by all small business concerns.
- Maintain good working relationships with Small Business Administration representatives to obtain assistance and coordination in finding capable SBs.

9. Subcontract Flow-Down

The clause entitled "Utilization of Small Business Concerns" will be included in all subcontracts that offer further subcontracting opportunities and all subcontractors (except small business concerns) who receive subcontracts in excess of \$550,000 (\$1,000,000 for construction of any public facility) will be required to adopt a similar plan.

10. Reports, Studies, and Surveys

The Offeror/Subcontractor will cooperate in any studies or surveys as may be required; submit periodic reports in order to allow the Government to determine the extent of compliance with the subcontracting plan; submit the "Individual Subcontracting Report" (ISR) and "Summary Subcontracting Report" (SSR) in accordance with the instructions on the eSRS website at www.esrs.gov; and ensure that its subcontractors agree to submit reports online utilizing eSRS.

ISR data must be submitted online at www.esrs.gov on a semi-annual basis on or before April 30 and October 31. SSR data must be submitted online at www.esrs.gov on or before October 31.

11. Records

The types of records that will be maintained to demonstrate the procedures adopted to ensure compliance with the requirements and goals of the Small Business Subcontracting Plan include:

- a. Source lists (e.g., SAM.gov and SBA's Dynamic Small Business Search database), guides, and other data that identify small business, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business concerns.
- b. Organizations contacted in an attempt to locate sources that are small, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business concerns.
- c. Records on each subcontract solicitation resulting in an award of more than \$150,000, indicating:
 - o Whether small business concerns were solicited and, if not, why not;
 - o Whether small disadvantaged business concerns were solicited and, if not, why not;
 - o Whether woman-owned small business concerns were solicited and, if not, why not;
 - o Whether HUBZone small business concerns were solicited and, if not, why not;
 - o Whether Native American owned business concerns were solicited and, if not, why not;
 - o Whether veteran-owned small business concerns were solicited and, if not, why not;
 - o Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;
 - o If applicable, the reason award was not made to a small business concern.
- d. Records of any outreach efforts to contact:
 - o Trade associations
 - o Business development organizations
 - o Conferences and trade fairs to locate small business, small disadvantaged, woman-owned, HUBZone, Native American owned, veteran-owned, and service-disabled veteran-owned small business sources.
- e. Records of internal guidance and encouragement provided to acquisition personnel through:
 - o Workshops, seminars, training, etc.
 - o Monitoring performance to evaluate compliance with the program's requirements.
- f. On a contract-by-contract basis, records to support award data submitted, including the name, address, and business size of each subcontractor.

Signed:

Margaret J. McCullough

Date:

11/14/16

Typed Name:

M. G. McCullough

Company:

Bechtel National, Inc., Waste Treatment Plant Project

Title:

Project Director

Plan Accepted By:

Ronnie L. Dawson

Date:

12/15/16

Typed Name:

Ronnie L. Dawson

Company:

U.S. Department of Energy, Office of River Protection (ORP)

Title:

ORP-WTP Contracting Officer

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT E – LIST OF APPLICABLE DIRECTIVES (LIST B-DEAR 970.5204.78)

- (a) Environmental, Safety, and Health (ES&H) requirements appropriate for work conducted under this Contract that have been determined by a U.S. Department of Energy (DOE) approved process to evaluate the work and the associated hazards and identify an appropriately tailored set of standards, practices, and controls:

DOCUMENT NUMBER	DATE	TITLE
		DELETED (130)
		DELETED (166)
RL/REG-97-04	08/02	DELETED (206)
RL/REG-97-05	07/19/04	DELETED (206)
RL/REG-97-13		DELETED (166)
RL/REG-98-05	07/01/99	DELETED (206)
RL/REG-98-06	06/30/99	DELETED (206)
RL/REG-98-14	06/29/98	DELETED (206)
RL/REG-99-17	04/25/04	DELETED (206)
RL/REG-2000-03	05/04/04	DELETED (206)
DOE O 420.1B, contractor requirements document (CRD)	12/22/05	Facility Safety (Partial Implementation per CCN: 168377 [U.S. Department of Energy, Office of River Protection {ORP} 07-WTP-306] and CCN: 170076) (133) to include Office of Environmental Interim Policy, “Code of Record for Nuclear Facilities” dated September 3, 2009. (170, 175)
DOE O 420.1C, CRD	12/04/12	Facility Safety (Partial Implementation per ORP 13-TRS-0014, dated April 26, 2013, and CCN: 260182) to only implement new Maximum Possible Fire Loss threshold values. (310)
DOE O 470.2B, CRD	10/31/02	Independent Oversight and Performance Assurance Program. (175, 290)

- (b) Additional Directives applicable to this Contract. The directive(s) or applicable section(s) of the directive(s) are applied as specified in other sections of this Contract.

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
06-AMD-050 (CCN 144548)		DELETED (310)	
		Deleted (376)	
DOE/EM-0093	12/96	Waste Acceptance Product Specifications for Vitrified High-Level Waste Forms (WAPS), Revision 2 (114)	Contract Clause C.8, Specification 1, 1.2.1.4 and 1.2.2.1.1(175)
DOE/RL-94-02, Rev 6 (336)	06/2014 (336)	Hanford Emergency Management Plan (197, 310) (Revision 6, June 2014) (336)	Contract Clause C.6, Standard 4(j) and Standard(e)(1) Table S7-1 (175, 197, 336)

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
DOE M 140.1-1B, CRD	03/30/01	Interface with Defense Nuclear Facilities Safety Board.	Contract Clause C.4 (d) (175)
DOE O 142.3A, CRD	10/14/10	Unclassified Foreign Visits and Assignments Program (047, 124, 204)	The order is effective regardless of comment above at (b) (175)
DOE O 205.1B, Change 1, CRD	12/07/12	Cyber Security Program (387)	Effective with Modification No. 384 and implemented in accordance with CCN: 266220 (14-WTP-0011), Attachment 1, "CRD 205.1B, Chg 2 (Supplemented Rev. 0)" and CCN: 267962 (14-WTP-0051). (387) .
DOE M 205.1-2		DELETED (175)	
DOE M 205.1-5, CRD		DELETED (194)	
DOE M 205.1-6, CRD		DELETED (194)	
DOE M 205.1-7, CRD		DELETED (194)	
DOE M 205.1-8, CRD		DELETED (194)	
DOE O 206.1, CRD	01/16/09	DOE Privacy Program (235)	The order is effective regardless of comment above at (b). Contractor shall implement in accordance with CCN: 231161 (321)
DOE O 206.2, CRD, Supplemented Rev. 1 (425)	02/19/13	Identity, Credential, and Access Management (307)	The order is effective regardless of comment above at (b) (307)
DOE O 210.2A, CRD	04/8/11	DOE Corporate Operating Experience Program (077, 310)	Contract Clause H.49 (175) Refer to Note 10 (310)
DOE O 221.1A, CRD	04/19/08	Reporting Fraud, Waste, and Abuse to the Office of Inspector General (133)	Refer to Note 3 (175)
DOE O 221.2A, CRD	02/25/08	Cooperation with the Office of Inspector General (133)	Refer to Note 3 (175)
DOE O 226.1B, CRD	04/25/11	Implementation of Department of Energy Oversight Policy (069, 108, 310)	Contract Clause H.46 (175) Refer to Note 11 (310)
DOE O 231.1B, CRD (363)	6/27/2011	Environment, Safety, and Health Reporting (033, 310)	Contract Clause C.6, Standard 1(d)(6) (175, 310)
DOE M 231.1-1A, Change 2, CRD		DELETED (332)	

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
DOE M-231.1-2, CRD		DELETED (256)	
SCRD M-231.1-2		DELETED (256)	
DOE Order 232.2A, CRD (406)	9/29/2017	Occurrence Reporting and Processing of Operations Information(406)	Contract Clause C.6, Standard 1(d)(5) and (6). (406)
CRD O 232.2A (Supplemented Rev.0)(406)	9/29/2017	Environmental Mangement Contractor Requirements Document (Supplemented DOE O 232.2A), Occurrence Reporting and Process of Operations Information (406)	Contract Clause C.6, Standard 1(d)(5) and (6).(406)
SCRD DOE Order 232.2A (406)	9/29/2017	ORP Supplemental Contractor Requirements Document (SCRD), for DOE Order 232.2A, Occurrence Reporting and Processing of Operations Information (406)	Contract Clause C.6, Standard 1(d)(5) and (6). (406)
HFID 232-1B		DELETED (256)	
DOE N-234.1, CRD		DELETED (310)	
DOE O-241.1, CRD		DELETED (310)	
DOE/RW-0333P	10/01/08	Quality Assurance Requirements and Description for the Civilian Radioactive Waste Management Program (QARD) – Revision 20 (099, 134)	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 (175)
DOE O 350.1, Chg 3, CRD	02/23/10	Contractor Human Resource Management Program (171, 175)	Contract Clause H.37 (175)
DOE/RW-0351	5/31/07	Waste Acceptance System Requirements Document– (WASRD) - Revision 5 (114)	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 (175)
DOE O 413.3A, CRD		DELETED (271)	
DOE M-413.3-1		DELETED (271)	
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), subparagraph (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	06/17/05	Quality Assurance (066)	Contract Clause C.6, Standard 7(e)(3)(i) & (iv) (175)

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
DOE 414.1D, CRD, Chg 1	05/08/13	Quality Assurance (349)	The order is effective regardless of comment above at (b) and implemented in accordance with Note 14 (349)
DOE O 420.1C, CRD, Chg 1, Chapter V	02/27/15	Facility Safety (Partial Implementation Only Chapter V. Cognizant System Engineer Program) (369)	The order is effective regardless of comment above at (b) Implemented for LBL commissioning only in accordance with CCN: 276975
DOE O 422.1, Change 1, CRD	06/25/13	Conduct of Operations (207)(387)	Effective with Modification No. 384 and implemented in accordance with CCN: 276479. (387)
DOE-0223	Effective the date of Modification No. 384	RL Emergency Plan Implementing Procedures (384)	Implemented in accordance with 16-CPM-0072
DOE-0336	9/15/2011	Hanford Site Lockout/Tag out (384)	Implemented in accordance with 16-CPM-0072
DOE-0343	3/26/2013	Hanford Site Wide Stop Work Order Procedure (384)	Implemented in accordance with 16-CPM-0072
DOE-0346		Hanford Site Fall Protection Program (HSFPP) (384)	Implemented in accordance with 16-CPM-0072
DOE-0352	11/14/2012	Hanford Site Respiratory Protection Program (HSRPP) (384)	Implemented in accordance with 16-CPM-0072
DOE-0355		Hanford Standardized HAZWOPER Training Program Description (384)	Implemented in accordance with 16-CPM-0072
DOE-0359	11/14/2012	Hanford Site Electrical Safety Program (384)	Implemented in accordance with 16-CPM-0072
DOE-0360		Hanford Site Confined Space Procedure (384)	Implemented in accordance with 16-CPM-0072
DOE O 425.1D, Chg 1, CRD	04/16/10	Verification of Readiness to Start Up or Restart Nuclear Facilities (033, 190, 310)	Contract Clause C.6, Standard 5(a)(5), (c)(6), (e)(2), (f)(ii), and (g) (175, 310) Contractor shall implement in accordance with CCN: 281821 (363)
DOE O 433.1B, CRD Admin Chg 1	04/21/10	Maintenance Management Program for DOE Nuclear Facilities (342)	This order is effective regardless of comment above at (b). (342, 387)
DOE O 435.1, Chg 1, CRD	08/28/01	Radioactive Waste Management	Implementation of this DOE CRD using the graded approach; approved by 05-WED-047; CCN: 136281 satisfies the comment above at (b) (130, 175, 278)

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
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 (175)
DOE M 441.1-1, CRD	03/07/08	Nuclear Material Packaging	The manual is effective regardless of comment above at (b) (130, 175)
DOE O 442.2, Chg 1, CRD	10/05/16	Differing Opinions for Technical Issues Involving Environment, Safety, and Health (271, 440)	The order is effective regardless of comment above at (b) and implemented as described in CCN: 246747
DOE O 442.1A & Supplemented Rev. 3 CRD	06/06/01	Department of Energy Employee Concerns Program (029, 293)	The order is effective regardless of comment above at (b) (175) and implemented as described in CCN: 249676 (293) Contractor shall implement in accordance with CCN: 266683 (332)
DOE M 442.1-1 CRD		DELETED (271)	
DOE M 450.4-1, CRD		DELETED (310)	
DOE O 458.1, Chg. 2		Radiation Protection of the Public and the Environment (384)	Implemented in accordance with 16-CPM-0072
DOE M 470.4-1, CRD	08/26/05	Safeguards and Security Program Planning and Management (136, 171)	Refer to Note 1 (175)
DOE M 470.4-2A, CRD		DELETED (310)	
DOE M 470.4-4A	01/16/09	Information Security Manual (145)	Refer to Note 2 (175)
DOE O 471.3, CRD	4/9/03	Identifying and Protecting Official Use Only Information (087)	Contract Clause H.50 (175)
DOE M 471.3-1, Chg 1, CRD	4/9/03	Manual for Identifying and Protecting Official Use Only Information (087, 310)	Contract Clause H.50 (175) Refer to Note 12 (310)
DOE O 475.1, CRD	12/10/04	Counterintelligence Program (071)	Contract Clause C.6, Standard 8(c) (175)
DOE/RW-0511, Volume I, Rev. 4	03/07/08	Integrated Interface Control Document (ICD), High-Level Radioactive Waste and U.S. Department of Energy and Naval Spent Nuclear Fuel to the Civilian Radioactive Waste Management System (114)	Contract Clause C.8, Specification 1,1.2.1.5 and 1.2.2.1.1 (321)

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
DOE O 551.1D, CRD	04/02/12	Official Foreign Travel. Refer to Note 4 (141, 175, 283)	Contract Clause I.109 (175) . Implemented in accordance with CCN: 243970, and 12-WTP-0272 (CCN: 251792) and Note 4 (283, 363)
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)
RL/REG-2000-04		DELETED (215)	
DOE/ORP-2000-06		Deleted through Contract Modification No. M082 (175)	
DOE STD 3009		DELETED (310)	
DOE O 5480.20A, Change 1, CRD		DELETED (310)	
SCSP	05/9/06	Richland Regional Office Site Counterintelligence Support Plan Hanford Site - Bechtel National, Inc. (BNI) (071)	Contract Clause C.6, Standard 8(c) (175)
DOE-0364		DELETED (366)	
HNF-EP-0063	02/01/11	Hanford Site Solid Waste Acceptance Criteria (310)	The order is effective regardless of comment above at (b)
DOE/RL-92-36	11/18/14	Hanford Site Hoisting and Rigging Manual (342)	The order is effective regardless of comment above at (b) and implemented in accordance with Note 13
DOE/RL-2001-36, Rev 1E, Appendix I.7	05/01/11	Immobilized low-activity waste (ILAW) Special Packaging Authorization of the Hanford Sitewide Transportation Safety Document (310)	Implemented per C.8, Specification 2, 2.2.1.21 and 2.2.2.10 (293)
DOE/RL-2002-12		Hanford Radiological Health and Safety Document (384)	Implemented in accordance with 16-CPM-0072
DOE O 151.1C, CRD	11/02/05	Comprehensive Emergency Management System (310)	Implemented in accordance with DOE/RL-94-02
DOE O 473.3, CRD	06/29/11	Protection Program Operations (310)	The order is effective regardless of comment above at (b)
DOE O 426.2, CRD	04/21/10	Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities (310)	Contract Clause C.3(f)(6) (321) Refer to Note 8 (310)
DOE O 225.1B, CRD	03/04/11	Accident Investigations (310)	Refer to Note 9 (310)

DOCUMENT NUMBER	DATE	TITLE	CROSS REFERENCE
DOE-STD-3009	1994	Preparation Guide for DOE Nonreactor Nuclear Facility Safety Analysis Reports (Change Notice 3, March 2006) (029, 152, 321)	Contract Clause C.6, Standard 9, paragraph 2 (321)
DOE-HDBK-1092-2013, Appendix D	07/2013	DOE Electrical Safety Handbook. Refer to Note 15 (353)	The order is effective regardless of comment above at (b)
DOE-STD-1195	09/2016	Design of Safety Significant Safety Instrumented Systems Used at DOE Non-Reactor Nuclear Facilities (384)	Implement clause 11.4 (inclusive of subclauses 11.4.1 through 11.4.9) of International Electrotechnical Commission (IEC) standard 61511-1 (Edition 2.0) concurrent with DOE-STD-1195-2011 as a means of achieving Safety Integrity Level – 2 (SIL-2) for low demand simple Safety Instrumented Functions without requiring redundancy, particularly with respect to final control devices such as valves. (384)

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 Operations Security (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 attends 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 1, 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 deemed to be the “subsequent version of the order in effect at the time of award” per DEAR 952.247-70. Implementation shall include compliance with DOE Office of Environmental Management Standing Operating Policy Procedure 66, Official Foreign Travel, Revision 0, with the exception of Standing Operating Policy Procedure Sections 7.D and 9.B.5.
 5. DELETED **(336)**
 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.
 8. The Contractor shall implement DOE O 426.2, CRD, as described in CCN: 249671.
 9. The Contractor shall implement DOE O 225.1B, CRD, as described in CCN: 249671 **(363)**.
 10. The Contractor shall implement DOE O 210.2A, CRD, as described in CCN: 249671.
 11. The Contractor shall implement DOE O 226.1B, CRD, as described in CCN: 249671.
 12. The Contractor shall implement DOE M 471.3-1, Chg 1, CRD, as described in CCN: 249671.
 13. Deleted. **(387)**
 14. The Contractor shall implement DOE O 414.1D, CRD, Chg 1, as described in CCN: 222763, 15-QAD-0014 and 17-QAD-0063.
 15. The Contractor shall implement DOE-HDBK-1092-2013, Appendix D as described in 14-CPM-0231 (CCN: 274546) and CCN: 257008. Unlisted equipment that is “Low-Hazard,” defined as “Class X.0 or X.1” in Appendix D of the DOE handbook for *Electrical Safety*, may be labeled or identified as such (e.g., “Unlisted Approval Not Required,” “Low-Hazard,” or “Class X.0, X.1”) to indicate it is equipment that does not require field evaluation and approval. This exemption will only apply to Class X.0 and Class X.1 equipment that are connected to a power source of less than 50 volts and less than 1,000 volt-amperes.

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT F – KEY PERSONNEL**

Key Position (M110) (M130) (M133) (M147) (M152) (M158) (A164) (M181) (206) (208) (242) (261) (276) (291) (303) (308) (332) (336) (353) (366) (369) (376) (387) (391) (419) (425) (440)	Current Employee
Project Director	Brian Reilly Valerie McCain
Deputy Project Director	Kimberly Irwin Felice Presti
Area Manager, Nuclear Safety	Alan Dobson
Manager of Safety & Health	Michael Zustra
Manager of Nuclear Safety Engineering	Robert (R.T.) Brock
Manager of Quality	James Tibble
Manager of Engineering and Design Authority	Ian Milgate
Business Services Manager	Chris Binns
Site Director	Rick Holmes

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT G – PERFORMANCE GUARANTEE AGREEMENT

For value received, and in consideration of: and in order to induce the United States (the Government) to enter into Contract DE-AC27-01RV14136 for the design, construct, and commission of the Waste Treatment and Immobilization Plant (WTP) to treat and immobilize Hanford tank waste (Contract dated, December 11, 2000), by and between the Government and Bechtel National, Inc. (Contractor), the undersigned, Bechtel National, Inc.(Guarantor), a corporation incorporated in the State of Nevada with its principle place of business at 45 Fremont Street, San Francisco, CA 94105, hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor hereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in a whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger, or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government against the Contractor of any of the Governments rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which by Contractor is in default under the Contractor or under any other document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand, perform all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of

the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, bylaws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer, and its corporate seal to be affixed hereto on.

BECHTEL NATIONAL, INC.

Original Signed By

T. F. Hash, President

GUARANTEE AGREEMENT ON
BEHALF OF GUARANTOR

I, D.W. Price, certify that I am the Assistant Secretary of the corporation named as Guarantor herein; that T.F. Hash who signed this certificate on behalf of the Guarantor, was then President of said corporation; that said certificate was duly signed for and in behalf of said corporation, and is within the scope of its corporate powers; that I have caused the corporate seal to be affixed hereto.

Original Signed By

D. W. Price, Assistant Secretary

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT H
 TANK FARM CONTRACTOR STAFF AND SUBCONTRACTORS EMPLOYED ON THE WTP
 PROJECT**

Staffing

The Tank Farm Contractor hired a total of 183 staff from BNFL Inc. and Bechtel National Inc. (BNI) that were previously supporting the Waste Treatment and Immobilization Plant (WTP) activities; approximately 138 are currently identified as available for transition to the WTP Contractor. Discipline and experience are as follows:

**INTERIM DESIGN CONTRACTOR EMPLOYEES EXPERIENCE
 SUMMARY AS OF 8/30/00**

DISCIPLINE	SENIOR LEVEL	JUNIOR LEVEL (1-5 Years)	YEARS EXPERIENCE	AVERAGE YEARS EXPERIENCE
<u>Engineers:</u>				
Managers	2	0	18-30	18
Process Engineers	9	2	1-33	16
Civil/Structural	7	1	1-35	23
Mechanical	17	5	1-33	18
HVAC	21	0	7-35	25
Elect, I&C	18	0	9-39	24
Architectural	2	1	1-21	13
Construction Engineering	1	0	9	9
Quality Assurance	2	0	25-30	28
Layout/Design	2	0	18-35	27
Subtotal	81	9		
<u>Designers:</u>				
Civil/Structural	3	1	4-36	21
Mechanical	19	2	3-34	21
HVAC	5	0	7-20	16
Piping	5	0	10-25	22
Elect, I&C	2	0	14-35	23
Layout	9	2	2-15	7
Subtotal	43	5		
Total	124	14		
Total Interim Design	138			

Subcontracts

The Tank Farm Contractor placed subcontracts with 27 firms; providing about 260 total staff supporting the design, science and technology, and ongoing operations roles. Most of the staff augmentation contracts will be available for transition to the WTP Contractor. Summary of contracts, scope, and numbers of staff identified includes:

Subcontractor	Current Scope	Number of Staff
Associated Western Universities	Summer Interns	5
EnergX	Staff Augmentation	2
ESG (ESG Technical Services)	Staff Augmentation	3
Enabling Technology	Staff Augmentation	1
Fircroft	Staff Augmentation	51
Global Environmental	Staff Augmentation	1
GTS-Duratek	Staff Augmentation	19
Individual Consultants (7 each)	Staff Augmentation	7
Doug Campbell		
Gary Dukelow		
Mike Fox		
Bruce Hensley		
William Roe		
Gene Schroeder		
John Deichman		
Kelly Temporary Services	Staff Augmentation	31
LATA (Los Alamos Technical Associates)	Staff Augmentation	8
Manpower	Staff Augmentation	3
MCE (Mid-Columbia Engineering)	Staff Augmentation	7
MH Chew	Staff Augmentation	2
Noramtec	Staff Augmentation	30
Onsite Engineering	Staff Augmentation	15
Project Time & Cost	Staff Augmentation	3
SAIC (Science Applications International Corp.)	Staff Augmentation- safety, permitting, and design	44
Sciencetech	Staff Augmentation	2
SCM	Staff Augmentation	8
TRI (Technical Resources International)	Staff Augmentation	13
Vista Engineering	Staff Augmentation	5

Science and Technology Support

The Tank Farm Contractor will have established work orders with Savannah River Technology Center, GTS-Duratek (including the Vitreous State Laboratory at Catholic University), Pacific Northwest National Laboratory, and IBC, Inc. for significant Science and Technology support to the WTP Project in the following areas:

Science and Technology Provider	Scope
Savannah River Technology Center	Chemical and radiochemical separations, waste form qualification
Pacific Northwest National Laboratory (PNNL)	Chemical and radiochemical separations, waste form qualification
GTS-Duratek	Pilot melter testing, melter testing, and glass development
IBC, Inc.	Ion exchange media development and testing

**SECTION J – LIST OF ATTACHMENTS
ATTACHMENT I**

Reserved

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT J
ADVANCE UNDERSTANDING ON COSTS

1. Allowable costs for WTP Project-specific travel and relocation shall be in accordance with the Bechtel Systems & Infrastructure, Inc. dated January 1, 2010 (Revision 15), effective January 1, 2010 **(164)**, submitted under BNI letter CCN: 210586 dated December 30, 2009 **(164)**. However, payments made under 2.7 d) [previously 3.7 d) under Revision 3] and 3.17 c) therein for tax assistance “gross up” shall be an unallowable cost prior to July 29, 2002, and an allowable cost thereafter **(134)**.
2. Allowable costs for WTP Project-specific BNI employee permanent assignment compensation benefit shall be in accordance with the BNI Project Assignment Incentive (PAI), Revision 10 (dated February 2008), effective April 1, 2008 through September 1, 2018. **(423)**

Historical Notes:

- The tax assistance portion “gross up” of the PAI, in effect until February 26, 2007, shall be an unallowable cost. This “gross up” was eliminated with the issuance of PAI, Revision 9.
 - The minimum 150-mile limit for recruited college students from Washington State University (Pullman, Washington campus only) and Eastern Washington University (Cheney, Washington campus only) is waived and PAI payments for such eligible recruited employees shall be allowable, subject to other allowability tests required under the contract, until April 1, 2008, at which time the limit was eliminated with PAI, Revision 10. **(126)**
 - Effective June 1, 2018, BNI will no longer offer PAI to WTP Project employees. Existing offers will be honored through September 1, 2018. **(423)**
3. During 2001, BNI implemented an internal Six Sigma Program to provide a clear means of work process measurement and continuous process improvement that is expected to result in a net overall reduction in incurred costs under this Contract. Costs to implement the BNI Six Sigma Program are considered allowable costs under this Contract, subject to other required tests of allowability under this Contract, the *Federal Acquisition Regulation*, and the *Department of Energy Acquisition Regulation*.
 4. Costs to implement the BNI Sharing for Success Program to enhance craft productivity and reduce overall project costs are considered allowable costs under this Contract, subject to other required tests of allowability under this Contract, the *Federal Acquisition Regulation*, and the *Department of Energy Acquisition Regulation*.
 5. Effective from the date of Contract award, facilities capital cost of money shall be an allowable cost under this Contract, provided the criteria for allowability in FAR 31.205-10 are met.
 6. Costs to implement the BNI Employee Recognition Program to support individual and team accomplishments and encourage the achievement of project goals are considered allowable costs under this Contract, subject to other required tests of allowability under this Contract, the *Federal Acquisition Regulation*, and the *Department of Energy Acquisition Regulation*.
 7. Costs incurred in connection with hedging contracts entered into in connection with foreign currency purchases, including but not limited to the purchase cost, rollover costs to adjust a hedging contract to a new date in the event the payment date is delayed, and closure costs in the event a procurement is canceled, are considered allowable costs under this Contract, subject to

other required tests of allowability under this Contract, the *Federal Acquisition Regulation*, and the *Department of Energy Acquisition Regulation*.

8. Costs to implement the BNI Vanpool Program to encourage project craft and nonmanual vanpooling are considered allowable costs under this Contract, subject to other required tests of allowability under this Contract, the *Federal Acquisition Regulation*, and the *Department of Energy Acquisition Regulation*.
9. Costs incurred in connection with the Washington State Retrospective Rating Program connected with Workers Compensation, including but not limited to surcharges, are considered allowable costs under this Contract, subject to other required tests of allowability under this Contract, the *Federal Acquisition Regulation*, and the *Department of Energy Acquisition Regulation*.
10. Multi-Employer Pension Plan (MEPP): **(152)**
 - a. The costs and expenses of the Contractor's participation in the MEPP are allowable Contract costs to the same extent as those costs are allowable under Contract No. DE-AC06-96RL13200 (Fluor) through August 23, 2009, and Contract No. DE-AC06-09RL14728 (Mission Support Alliance, LLC) thereafter. **(206)**
 - b. In the event that the Contractor withdraws from the MEPP, in accordance with the terms of the MEPP, the Contractor's withdrawal liability, if any, shall be an allowable cost of this Contract subject to availability of funds under this Contract.
 - c. In the event that the MEPP is overfunded at the time of the Contractor's withdrawal and the Contractor does not receive a cash disbursement of its share of such overfunding, ORP hereby waives the Contractor's obligations, if any, under FAR 52.215-15(b) to make payments to DOE, or otherwise adjust the Contractor's allowable costs, with respect to any amounts otherwise assessed in accordance with CAS 413-50(c)(12).
 - d. In the event that the Contractor becomes the last sponsoring employer of the MEPP, the Parties shall modify this agreement to address appropriate termination provisions and funding requirements.
 - e. This Advance Understanding shall be revised from time to time to incorporate any changes in those policies, practices, and procedures the related costs and expenses related to the MEPP.
11. The following pending items and trends are incorporated by reference in Modification No. **029**.

Case No.	Title
	Issued to ORP
4	PI-24590-01-00065 Additional Security Badging Requirements
18	PI-24590-01-00093 Model Recovery, Maintainability, and RAMI Development
6	PI-24590-01-00099 Construction Emergency Response Plan (Addendum for FH site emergency preparedness program)
21	PI-24590-01-00112 Addition of C2 Filtration (HEPA) to Pretreatment, Low-Activity-Waste (LAW), and HLW Facilities
	PI-24590-01-00117 Commissioning Maintenance Requirements
17	PI-24590-01-00118 Plant Operator Qualification & Training Facility
	PI-24590-01-00119 Commissioning Materials & Vendor Support
	PI-24590-01-00120 Commissioning Testing and Operations Requirements
	PI-24590-01-00121 Risk Assessment and Reporting

Case No.	Title
19	PI-24590-01-00122 Analytical Laboratory and Temporary Laboratory Facilities
	PI-24590-01-00131 Hazards/Accident Analysis Post PSAR Submittal
	PI-24590-01-00133 Commissioning Procedure Writers
	PI-24590-01-00135 QC Support to Commissioning
	PI-24590-01-00136 Commissioning Training
	PI-24590-01-00138 Environmental Interface
	PI-24590-01-00140 Operation Authorization Request (OAR) Development and Authorization Basis Maintenance
	PI-24590-01-00142 Compliance with ISMS DEAR Clause, Safeguards and Security
	PI-24590-01-00143 Pilot Scale Facility
10	PI-24590-01-00147 Pulsed Jet Mixer Testing
16	PI-24590-01-00150 LAW Canister Level Control
	PI-24590-01-00153 A1-Incomplete WTP Conceptual Design - NOC & Sanitary Sewer
	PI-24590-01-00153 A2 - Incomplete WTP Conceptual Design - SAP & CAR
	PI-24590-01-00153 B - Incomplete R&T WTP Conceptual Design work (5 PIs)
19	PI-24590-01-00154 HLW Melter Cell Reconfiguration Due to Analytical Laboratory (LAB) Reconfiguration
13	PI-24590-01-00165 Vitrification, Rheology & Regulatory Analysis for the Rework of AZ-102 (Envelope B)
2	PI-24590-01-00170 LAW Annex Modifications
23	PI-24590-01-00181 Operations & Maintenance C3 Area Temperatures
23	PI-24590-01-00194 Study Associated with C3 Temperatures
	PI-24590-01-00197 Technical Integration Baseline Development Team
	PI-24590-01-00201 LAW Throughput Increase to 45 MTG
	PI-24590-01-00246 ES&H Fire Protection Support Program
27	PI-24590-01-00278 Change in LAW Concrete and Structural Steel Quality Class
	PI-24590-01-00309 Revised Scale-Up Ion Exchange Resin Quantities
	PI-24590-01-00311 Radiological Safety Support
3	PI-24590-02-00335 LAW Bubbler Failures Below the Melt Line
	2001 Approved Trends
1	PI-24590-01-00173 Detailed Study & Process Plan for Resolving Mercury Issues in Waste Feed
14	PI-24590-01-00174 Maximum Achievable Control Technology
14	PI-24590-01-00316 Mercury mitigation for LAW Melter & Offgas
14	PI-24590-01-00327 Incorporate Activated Carbon Column in HLW Melter Offgas
	PI-24590-01-00143 Pretreatment (PT) Integrated Pilot Facility - Infrastructure & Testing IX Processes
	2002 Approved Trends
12	PI-24590-02-00341 Radiological Monitoring Standards Change from ANSI-N13.1-1969 to 1999
7	PI-24590-02-00356 Critical Decision 3 - Extended Independent Review

Case No.	Title
22	PI-24590-02-00358 Steam Reformer Technology Demonstration Acquisition
20	PI-24590-02-00382 Evaluate and Test CS & TC Exchange Resins
15	PI-24590-02-00395 DOE Order 420.1 Fire Safety Impact Assessment Study
	PI-24590-02-00396 Melt Pool Corrosion of LAW Bubblers (Part 2)
	PI-24590-02-00398 Evaluation of Seismic Safety DOE 420.1 Impact
	PI-24590-02-00405 LAB - Cost Reductions
	PI-24590-02-00415 Initial Testing of Steam Reforming Waste Product
	PI-24590-02-00431 DWPA Phased Approach
	PI-24590-02-00447 Pour Tunnel Catch Tank
	PI-24590-02-00453 Increase Pour Cave Cooling
	PI-24590-02-00508 Sales and Use Tax
25	PI-24590-02-00516 Regulatory Compliance Matrix
	PI-24590-02-00539 LAB Rad Effluent Line
	PI-24590-02-00550 Develop Implementation Plan & Start Testing of Alt. Resins
	PI-24590-02-00581 Mixing Tests and Computational Fluid Dynamic Modeling by R&T for PT and HLW
	PI-24590-02-00586 Delete BOF Encapsulation Facility from WTP
	PI-24590-02-00587 Modify BOF Spent Melter Staging Facility
	PI-24590-02-00589 Eliminate BOF Melter Assembly Building
	PI-24590-02-00590 Delete BOF Central Waste Storage Facility
	PI-24590-02-00591 Eliminate BOF Administration Building from WTP Site
	PI-24590-02-00601 Modification to HLW Melter Cave Support Handling System Shielding/Containment and Decontamination
	PI-24590-02-00635 Mercury - Sulfur Impregnation Carbon Tests
	PI-24590-02-00637 Mercury R&T Studies
	PI-24590-02-00665 Replace Welded Sealing of LAW Containers with Mechanical Sealing
	PI-24590-02-00666 Eliminate Tc Ion Exchange System (pending approval)
	PI-24590-02-00688 Stage 1 Cs Alternative Resin Testing
	PI-24590-02-00700 Develop Estimate for Implementing DOE Order 435.1
	PI-24590-02-00706 2 + 2 Melter Option
	PI-24590-02-00723 Commissioning and Training Cost Savings Initiatives
	PI-24590-02-00725 Schedule Impact of Cumulative Changes
	PI-24590-02-00728 Alternate Cesium Ion Exchange Resin Testing: Stages II & III
	PI-24590-02-00742 Develop Supplemental EIS Data Package
	PI-24590-02-00744 Include Battelle R&T Sample Residue Handling & Disposal
	PI-24590-02-00754 Foreign Travel Coordinator DEAR 952-247-70
	PI-24590-02-00758 Replace Uniform Building Code with International Building Code for Fire Proofing Design
	PI-24590-02-00779 Trend Implementation Variance vs. Approved ROM
	PI-24590-02-00782 R&T Testing of Ion Exchange Pressure Drop Issue

All items above may have subsequent update revisions, interpretations, or other clarifications that are agreed to by letter. Such updates shall be deemed to be incorporated by reference where stated.

12. The Contractor's Employee Referral Bonus Program is an allowable cost for a period of two (2) years, from March 26, 2007, to March 25, 2009, with a not-to-exceed total cost of \$150,000, and one (1) year from March 4, 2014, with a not-to-exceed total cost of \$100,000. The Contractor shall prorate the \$2,500 bonus over the new hire's first year of employment should the new hire leave the project prior to completing one (1) year of employment. The policies establishing the program, and the applicable time periods are:
- Program as contained in contractor letter, CCN: 146882, dated March 13, 2007, applies to the period March 26, 2007, through March 25, 2008.
 - Program as contained in contractor letter CCN: 162480, dated April 1, 2008, applies to the period March 26, 2008, through March 25, 2009. **(086, 123)**
 - Program as contained in contractor letter CCN: 259128, dated December 13, 2013, and DOE letter CCN: 266666, dated March 4, 2014, applies to the period March 4, 2014, through March 3, 2015.
13. The following requirements are incorporated into and made a part of this Contract. Not-to-exceed amounts for these items have been authorized. The items listed in Table 13-A were definitized by Modification No. A143. **(101, 130, 136, 143, 155)**

Table 13-A. Not-To-Exceeds Definitized by Modification No. A143 (155)

Document ID	Title
TN 24590-03-01341	Seismic Attenuation Study to Support ORP (101)
TN 24590-03-01071	Maximum Achievable Control Technology/Destructive and Removal Efficiency Testing (101)
TN 24590-03-01318	Supplemental LAW Treatment Study (101)
TN 24590-03-01317	QA Testing of HEPA Filters at DOE Filter Test Facility (FTF) (101)
TN 24590-03-01482	Earned Value Management System (EVMS) Criteria Crosswalk (101)
TN 24590-03-01315	PTF Black Cell Access Trend (101)
TN 24590-03-01213	Concentrate Receipt Vessels (CRV) Deletion (102)
TN 24590-05-01906	PNNL Seismic Borehole Drilling Support (102)
TN 24590-06-01930	Technical Feasibility Study of WTP Startup Sequencing (098, 130)
TN 24590-06-02430	Perform Impact Assessment of Borehole Data (098, 130)
BCP-24590-06-03419	Implementation of ASME NQA-1 2000 and QARD Revision 18 for performance by BNI subcontractor Duratek, Inc. (135)
ORP 08-AMD-213 (10/06/08) (CCN: 187713) TN 24590-06-03628	DOE ORP Direction to Cancel the Temporary LAW Melter Assembly Building Procurement (141)

13-B. Not-To-Exceeds Not Included in Modification No. A143 Definitization (M155)		
DOCUMENT ID.	TITLE	DEFINITIZATION MODIFICATION NO.
BCP-24590-06-02279	Expansion of DWP Requirements (permit modifications) (122) (130)	A193
ORP 08-NSD-011 (05/20/08) (CCN:179512) TN 24590-06-03487	ORP Direction to Implement New Preliminary Safety Analysis Report (PSAR) Updates (136)	A164
ORP 08-NSD-057 (10/09/08) (CCN:188218) TN 24590-06-03752	Direction to Implement New Safety Classification Process for the Waste Treatment and Immobilization Plant (WTP) (141)	276
ORP 08-NSD-059 (10/15/08) (CCN 188217) TN 24590-06-03753	Direction to Implement New Justification for Continued Design, Procurement, and Installation (JCDPI) (M152)	164
Modification No. M090 & 09-AMD-205 (07/18/08) (CCN: 202423) TN 24590-06-02145 & - 02381	Direction to Implement DOE 205.1A, Cyber Security Management Program (155)	217
Modification No. M154 TN 24590-06-04133	Direction to Implement Pretreatment Engineering Platform (PEP) dry layup (155)	167
Modification No. M196 BCP 24590-06-04489 BCP 24590-06-04784 BCP 24590-06-05085	Direction to Implement Multiple Operational Readiness Strategy (218)	282
Modification No. M196 BCP 24590-06-04853 ORP 10-AMD-139 (05/06/10; CCN: 218244)	Direction to Implement CXP Equipment Option (218)	317
Modification No. 221 ORP 11-WTP-219 (06/17/11; CCN: 236247);	Direction to Proceed with Large Scale Testing (221, 247, 264, 286)	299 - 384

Modification No. 247 ORP 11-WTP-437 (12/01/11; CCN: 242351); Modification No. 264 ORP 12-WTP-0109 (03/15/12; CCN: 245985); Modification No. 286 ORP 12-WTP-317 (09/24/12)		
Modification No. 273	Direction to participate in the Hanford Site Organizational Climate and Safety Conscious Work Environment (SCWE) Survey	290
Modification No. 245 ORP 11-WTP-429	Direction to proceed with the implementation of DOE Order (O) 420.1B, <i>Facility Safety</i> , Chapter V, <i>Systems Engineer Program</i> . (245)	276
Modification No. 300 ORP 13-CPM-0099 (05/06/13); Modification No. 304 ORP 13-CPM-0133 (06/05/13); Modification No. 313 ORP 13-CPM-0299 (11/25/13)	Direction to Proceed with Full Scale Vessel Testing Program in lieu of the existing Computational Fluid Dynamics and Large Scale Vessel testing Program as a Design Verification Tool (300, 304, 313)	384
Modification No. 329 ORP 14-CPM-0172	Direction to proceed with Section C, Statement of Work, Standard 3 Design, paragraph (i) Design of BOF Utility Modifications	350
Modification No. 330 ORP 14-CPM-0181	Direction to proceed with Section C, Statement of Work, Standard 3 Design, paragraph (j) Design of BOF Effluent Management Facility	350
Modification No. 334 ORP 14-CPM-0228, ORP 15-CPM-0300 (358) 16-CPM-0088 (372)	Direction to proceed with Pretreatment Facility vessel mixing design verification.	384
Modification No. 339 ORP 15-CPM-0008	Direction to proceed with Section C, Statement of Work, Standard 3 Design, paragraph (k) Design of Balance of Facilities Underground and Site-Wide modifications necessary to support the Direct Feed of LAW (DFLAW)	350
Modification No. 342 ORP 15-CPM-0064, ORP 16-CPM 0012 (364)	Direction to proceed with the implementation of DOE Order 433.1B, Maintenance Management Program for DOE Facilities and DOE/RL-92-36, Hoisting and Rigging Manual. (342)	384
Modification No. 344 ORP 15-CPM-0092	Direction to proceed with initiation of procurement of BOF modifications and LAW Valve Vault materials to support DFLAW; add Interface Control Documents 30 and 31	384

Modification No. 348 ORP 15-CPM-0128	Direction to proceed with initiation of BOF isolation construction to support DFLAW	384
Modification No. 349 ORP 15-CPM-0136	Direction to proceed with the implementation of DOE Order 414.1D, CRD, Chg. 1, Quality Assurance. (349)	454
Modification No. 354 ORP 15-CPM-0195, ORP 16-CPM-0154 (380)	Direction to proceed with procurement of Effluent Management Facility (EMF) equipment and effluent transfer lines and limited EMF construction (354)	384
Modification No. 371 ORP-16-CPM-0085, ORP-16-CPM-0091	Conduct supplementary analysis of vessels RLD-VSL-00007 and RLD-VSL-00008 beyond the WTP Code of Record and modify the RLD-VSL-00007 and RLD-VSL-00008 vessel design.	441
Modification No. 375 ORP-16-CPM-0111, 17-CPM-0038, (388), ORP-17-CPM-0185 (412)	Update the Natural Phenomena Hazards (NPH) Assessment by generating a revised site-specific response analysis and design response spectra for WTP incorporating Hanford site-wide Probabilistic Seismic Hazard Analysis (PSHA) report from PNNL, dated November 21, 2014. (375)	429
Modification No. 381 ORP-16-CPM-0155 (381)	Authorization to proceed with the development of an engineering redraft process for Standard 3: Design (c) (22).	403
Modification No. 385 ORP-16-CPM-0174, ORP-17-CPM-0181 (411)	Authorization to proceed with the engineering redraft process developed in Standard 3, subparagraph (c) (22) to reclassify the required portions of the LAW C5 ventilation system from non-safety to safety significant as described in 24590-LAW-PL-NS-16-0005 Rev. 0, <i>Safety Strategy Summary Document (SSSD) – Oxides of Nitrogen/Melter Offgas Releases</i> .	426
Modification 389 17-CPM-0044 (389), 18-CPM-0105 (428)	Authorization to proceed with engineering and nuclear safety activities necessary to implement the changes to engineered safety controls documented in the Caustic Safety Strategy Summary Document (SSSD) under Standard 3, subparagraph (c) (24)	433
Modification No. 397, ORP-17-CPM-0094; 18-CPM-0143 (438)	DOE included a deliverable to implement the CGD extent of condition review and impacts in Section C, <i>Statement of Work, Table C.5-1.1. Deliverables, 7.11)</i> (397)	455
Modification No. 406, ORP-17-CPM-0151 (406)	DOE Updated DOE Order 232.2A as referenced in Section C, Standard 1, (d)(5)(6) and updated Section J deliverables.(406)	
Modification No. 415, ORP-18-CPM-0004, 18-CPM-0105 (428)	CGD Implementation Plan for Parking Lot Items 1, 2, 7, 9, 12 and 17 in Section C, Statement of Work, Standard 7, Environment, Safety, Quality, and Health, (3) Quality Assurance, (ii), d.	443
Modification No. 432, ORP-18-CPM-0123 (432)	Authorized to perform Design and Procurement of the Actuated On/Off Valve as referenced in Section C,	453

	Statement of Work, Subsection C.7 Facility Specification, paragraph (a) (3)	
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- 14. Reserved
- 15. Reserved
- 16. The following advance agreements are incorporated and made a part of this Contract. **(130)**

Title	References
Offsite Beryllium Medical Exam Costs (130)	CCN: 150302 (06-ESQ-166; 28DEC06)
Relocation Costs Associated with Establishing a Frederick, MD WTP Project Office (130)	Advance Agreement signed by J. J. Short/C. E. Rogers 20JUL06; CCN: 143197
Steps to Bring BNI Billings and DOE Financial System into Agreement (130)	Advance Agreement signed by J. J. Short/C. E. Rogers 24JUL06; CCN: 143195
Costs Related to Safety Award to WTP Construction Site Employees (130)	Advance Agreement signed by T. M. Williams/N. F. Grover 28NOV07; CCN: 169002
Costs Related to WTP College Hire Conference (130)	Advance Agreement signed by T. M. Williams/N. F. Grover 08AUG07; CCN: 169228
Costs Related to Per Diem Expenses for Certain Employees (130)	Advance Agreement signed by T. M. Williams/N. F. Grover 03JUL07; CCN: 169230
Costs Related to Living Away From Home Option (LAFHO) (130)	Advance Agreement signed by T. M. Williams/N. F. Grover 12DEC07; CCN: 169233
Costs Related to Voluntary Protection Program (VPP) (133)	Advance Agreement signed by T. M. Williams/N. F. Grover 20JUN08; CCN: 181338
Costs Related to Per Diem Expenses for Specific Employees July 2008 (134)	Advance Agreement signed by T. M. Williams/N. F. Grover 18JULY08; CCN: 184046
Construction Project Review Subsistence (197)	Advanced Agreement described in CCN: 224972 (27Oct10) and approved by R. L. Dawson on 04NOV10; 10-AMD-370 (CCN: 227552)
Costs Related to 2011 Safety Award to WTP Construction Site Employees (285)	Advanced Agreement described in BNI letter CCN: 236919, dated July 26, 2011 and approved by R. L. Dawson in ORP letter 11WTP-264 dated July 29, 2011 (CCN: 238015)
Costs Related to Stipend for Mobile Communication Devices (285)	Advanced Agreement described in BNI letter CCN: 245311, dated September 18, 2012 and approved by R. L. Dawson in ORP letter 12-WTP-0312 dated October 2, 2012 (CCN: 252582)

- 17. Dollar thresholds for obtaining Contracting Officer approval prior to BNI incurring costs for repair or replacement of Government Property resulting from damage, and/or the need for unscheduled nonroutine corrective maintenance/rehabilitation – are specified in CCN: 220281, "Contract Section J, Attachment J, Item 17 – Thresholds for Repair of Government Property," letter from N.F. Grover to R.L. Dawson, dated August 4, 2010, and are incorporated into this Contract. The Property Administrator is authorized to approve repairs costing less than \$25,000. **(136, 145, 186)**

18. Inclusions from Equitable Adjustment Settlement. The Trends and Baseline Change Proposals listed on Attachment J, "List of Attachments," Subattachment A are specifically included in the Statement of Release with Modification No. A143, and are released from any further equitable adjustment. **(143)**
19. Exclusions from Equitable Adjustment Settlement. The modifications, trends, and Baseline Change Proposals listed on Attachment J, "List of Attachments," Subattachment B are specifically excluded from the Statement of Release with Modification No. A143, and may be eligible for equitable adjustment provided all Contract change requirements are met. **(143)**
20. All emergency-related repairs or emergency-related maintenance on BNI leased facilities less than or equal to \$25,000, no Contracting Officer approval is required. Alterations made to any BNI leased facility greater than or equal to \$100,000, Contracting Officer approval is required (09-AMD-164 dated May 28, 2009; CCN: 200168). **(155)**
21. Deviation to FAR 31.205-44 Training and education activity. Costs incurred in connection with Training on Overtime with direct-feed low-activity waste (DFLAW) 24/7 Commissioning Personnel are allowable. This deviation is supported by BNI Business case included in CCN: 286030, and the DOE Senior Procurement Executive approval with three (3) conditions:
 - Time Period: The time period covered is 36 months, beginning 6 months prior to the "Loss of Power" test.
 - Designated Personnel: This approval applies only to those personnel, as described in the Contractor's revised business case (CCN: 292307) dated 21 September 2016, who are directly assigned to DFLAW, working 24/7 operations.
 - Costs: The maximum costs for overtime compensation relating to training and education that is allowed is \$17.5M

Overtime costs for training of the Commissioning 24/7 personnel are considered allowable costs under the contract subject to other required tests of allowability under the contract, the *Federal Acquisition Regulation*, and the *Department of Energy Acquisition Regulation*. **(384)**

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT J
 ADVANCE UNDERSTANDING ON COSTS (143)**

Subattachment A

List of Inclusions from Equitable Adjustment Settlement Established in Modification No. 143

Trend No.	Trend Description
TN-24590-05-01906	PNNL Seismic Borehole Drilling Support
TN-24590-05-02086	Hexavalent Chromium Standards
TN-24590-05-02109	Construction Late Adjustments Transfer
TN-24590-06-02119	C&I LAB Safety Program Implementation
TN-24590-06-02121	Ejector Addition to PWD-SUMP-00004
TN-24590-06-02122	BNI Analysis of NWC Vessels
TN-24590-06-02124	Add Under Flange Swab for LAW Swabbing System
TN-24590-06-02125	Revised Ground Motion Criteria for SC-III
TN-24590-06-02126	Elimination of LAW PPJ Annunciator Panels
TN-24590-06-02127	Unanticipated Growth in MET Support and Noise Assess
TN-24590-06-02130	NAR/SHR Tank Separation Berm
TN-24590-06-02131	C&I Datasheet EPPR Restructure
TN-24590-06-02132	Laser Ablation Procurement Budget Reallocation
TN-24590-06-02133	PJV Creep Additional Testing to Eliminate ALARA Concerns
TN-24590-06-02134	Humphries & Assoc. Contract Modification
TN-24590-06-02135	Funding for 12 Each PVP and PJV Valves
TN-24590-06-02136	Add Stack Discharge Sample/Monitor Piping to 3D Models
TN-24590-06-02138	Procedure Compliance Checklists and Isometric Second Checking
TN-24590-06-02139	Impacts due to Unidynamics Bankruptcy
TN-24590-06-02140	WTP Activated Carbon Temperature Modeling and Detection Limit Development
TN-24590-06-02141	Improvement of PWD-SUMP-00040 Leak Detection Capability
TN-24590-06-02142	Redistribution of LBL Production Hours
TN-24590-06-02143	PTF Committed Phase Design for System CXP & HLW Dryer and Melter Flush Lines
TN-24590-06-02144	Increased Effort for MH Packaged Equipment Integrated Testing & Drawing Review
TN-24590-06-02147	LAW Off-Gas Ancillary SCIV Piping
TN-24590-06-02149	Update Documents for HLW Joggles
TN-24590-06-02151	Large Piping Loads to PTF at Elevation 67' - 4
TN-24590-06-02152	C&I Bulk Analysis
TN-24590-06-02153	Establish Planning Packages in Current OTB
TN-24590-06-02154	Termination Settlement for Trentec PO# 24590-QL-POA-ADDH-00005
TN-24590-06-02155	FNM Budget Hours Transfer from Plant Wide to Facilities
TN-24590-06-02156	Plant Design Re-plan TN-24590-06-02157 Large Bore Pipe Support Jobhour Adjustment
TN-24590-06-02164	HEPA Filter Equipment & Flow Meter Line Changes
TN-24590-06-02166	Remote Operated Damper Alternate Supplier
TN-24590-06-02167	C&I Hours for PJM Testing Not Implemented in TN-24590-05-01957
TN-24590-06-02168	BOF Glass Former Facility Additional Formwork & Concrete
TN-24590-06-02170	SRNL-XRF
TN-24590-06-02174	Increase Scope of EFRT M4, Commissioning Waste vs. Mission Needs
TN-24590-06-02176	Systematic Approach to Training (SAT)
TN-24590-06-02177	Plant Design Impacts Associated with Engineering of LBL Facility
TN-24590-06-02178	Plant Design Impacts Associated with Engineering of BOF Facility
TN-24590-06-02179	Plant Design Impacts Associated with Engineering of LAB Facility
TN-24590-06-02180	Coupled Analysis of Two Typical Breakpots
TN-24590-06-02181	Add Additional Hours to PT Process Calcs
TN-24590-06-02182	Accelerated Data Reconciliation
TN-24590-06-02183	Process Operations Actions to Close DOE Oversight Open Items
TN-24590-06-02184	IT 14 Implementation
TN-24590-06-02186	LAW Line List Development & CIS List Comparison Macro
TN-24590-06-02187	Equipment Group Increased Deliverable Quantities
TN-24590-06-02189	Modification of MV Switchgears and Load Centers
TN-24590-06-02190	Environmental Performance Test Plan, Process Engineering Calculations
TN-24590-06-02191	Change Offgas Pipe from CM to Q Classification
TN-24590-06-02192	Review of Existing and Future Awarded Commercial Grade Dedication (CGD)-related Procurements
TN-24590-06-02193	Reduction of LAW Cable Tray Baseline based on Qty Awareness

Trend No.	Trend Description
TN-24590-06-02194	Mechanical Handling Diagrams (MHD)/Mechanical Sequence Diagrams (MSD) Hour Adjustment
TN-24590-06-02195	CFD Analysis - LAW & HLW for HVAC, CSA, MH - Phase 2
TN-24590-06-02197	Multi-Discipline EN&S Support (for ISM Reviews) - 101F Accounts
TN-24590-06-02199	DOE ORDER 413.3A - Estimate to Perform Impact Analysis
TN-24590-06-02201	Overblow (OB) Equipment Modifications to Support Revised Design Requirements
TN-24590-06-02202	Chiller Compressor Building Fire Protection
TN-24590-06-02204	Conversion of PP to WP for Stairway Installation at PT
TN-24590-06-02205	Late Adjustments Planning Package to Equipment Package Budget Reallocation 24590-QL-MEEM-00001 & 2
TN-24590-06-02206	Increase Cost of LAW C3V-ACU-00001, 00002, 00003
TN-24590-06-02208	Revise Criticality Safety Evaluation Report & Supporting Analysis
TN-24590-06-02211	Late Adjustment Planning Package to Equipment Package Budget Re-allocation PO 24590-QL-POA-MJKG-00004
TN-24590-06-02212	Accelerate CHAMPS Software Purchase. Transfer Budget from Planning Pkg to Work Pkg
TN-24590-06-02213	Conversion of REA Preparation Planning Package to Work Package
TN-24590-06-02215	HPAV Support Contracts for Detonation Analysis and Configuration Management
TN-24590-06-02217	BOF Construction Hours to Support Piping Design Changes
TN-24590-06-02218	Late Adjustments Planning Package to Equipment Package Budget Reallocation for Flowserve Bulge Valves
TN-24590-06-02219	LAPP to Equipment Package Budget Reallocation for Framatome Delay Claim
TN-24590-06-02220	Conversion of DOE Order 226.1 Implementation of DOE Oversight Policy Planning Pkg to Work Pkg
TN-24590-06-02221	Forward Pricing Rates (FPR) (Aug-2006)
TN-24590-06-02222	Cost Increase to M-12 Original Scope, Undemonstrated Leaching Processes
TN-24590-06-02224	10 CFR 851 Implement Worker Health and Safety Rule PP to WP
TN-24590-06-02225	Conversion of DOE Order 414.1C & NQA-1 Rev 2000
TN-24590-06-02226	Perform Qualification of Vendor Supplied Leak Detection Box - PT
TN-24590-06-02227	Removal of Sealing Tapes from Pipe Ends and Flanges - PT
TN-24590-06-02228	Removal of Sealing Tapes from Pipe Ends and Flanges - HLW
TN-24590-06-02229	LAW Quantity Adjustment per the Latest Qty Takeoff
TN-24590-06-02230	Removal of Sealing Tapes from Pipe Ends and Flanges - LAW
TN-24590-06-02231	Direct Hire Craft Support for LAW Coatings Subcontract
TN-24590-06-02232	LAB Hotcell Surface Preparation
TN-24590-06-02233	Removal of Sealing Tapes from Pipe Ends and Flanges - LAB
TN-24590-06-02234	Removal of Sealing Tapes from Pipe Ends and Flanges - BOF
TN-24590-06-02235	Increased Attenuation for Six HLW Shield Windows
TN-24590-06-02239	414.1C QA Implementation Estimate Reduction
TN-24590-06-02241	BOF Quantity Adjustment per the Latest Drawings IFC
TN-24590-06-02242	LAB Quantity Adjustment per the Latest Drawings IFC
TN-24590-06-02243	Plant Wide EPCC: FNM Work Package/Planning Package Allocation
TN-24590-06-02244	Alignment of COBRA end-dates with P3 Schedule
TN-24590-06-02245	Moving Budget Out of LAPP into WP for ASX System Re-evaluation
TN-24590-06-02247	Support for DWP Public Comment Period
TN-24590-06-02248	Re-allocation of Remaining FY 2006 PEM Late Adjustments Planning Package Budget
TN-24590-06-02249	Bechtel Internal Cost due to Hirschfeld Request for Equitable Adjustment
TN-24590-06-02250	Re-alignment of Plant Equipment Spend Profile - Critical 7
TN-24590-06-02251	LAW Summary Work Package/Planning Package Re-alignment
TN-24590-06-02252	BOF Summary Work Package/Planning Package Re-alignment
TN-24590-06-02253	LAB Summary Work Package/Planning Package Re-alignment
TN-24590-06-02256	Move Late Adjustment Planning Packages (PP) and Transition PP to Work Packages
TN-24590-06-02257	Mechanical Systems HPAV Calculations
TN-24590-06-02261	Increase Size of Viewing Windows in Select Doors
TN-24590-06-02265	Revision of Procedures and Guides for Nuclear Safety and Quality Initiative
TN-24590-06-02266	Subcontractor EAC Adjustment due to Schedule Delay
TN-24590-06-02267	AFA Antifoam Effect on Gas Retention/Release
TN-24590-06-02269	PTF Hot Cell Fire Analysis
TN-24590-06-02270	HLW C2/C5 Confinement
TN-24590-06-02271	PTF Addition of Safety Class Differential Pressure Alarms
TN-24590-06-02272	Complete SFA with Subcontractor Support
TN-24590-06-02276	Freight BCWS Adjustment
TN-24590-06-02285	Implementation of Sunflower Software System for Property Mgt
TN-24590-06-02288	Additional Vendor Package Interconnection Diagrams
TN-24590-06-02289	PT Modifications to Provide Access for Routine Maintenance of Shield Door
TN-24590-06-02291	Vessel Design Changes - MOB, HPAV, Committed Design Evolution

Trend No.	Trend Description
TN-24590-06-02292	Subcontractor EAC Adjustment to Comply with ASCE 97-8 Classification
TN-24590-06-02299	Re-allocation of Fiscal Years 2008 and 2009 PEM Late Adjustments Planning Package Budget
TN-24590-06-02300	Functional Verification of Crane Mounted Manipulator Dexterity
TN-24590-06-02303	Re-alignment of Plant Equipment Spend Profile - Critical 4
TN-24590-06-02306	LBL Re-Sequencing TN-24590-06-02307 Capacity Modifications - 4 Month Earnable Hours
TN-24590-06-02308	Support Steel for Fire Risers in HLW Stairwells
TN-24590-06-02310	Modification of RWH-CRN-00013 to Eliminate Interferences with Monorail Airlocks
TN-24590-06-02311	Plant Equipment to Management Reserve Budget Reallocation
TN-24590-06-02312	LAW Export Bay-Individual Wall Form Installation/Removal
TN-24590-06-02313	LAW Field Rebar Support Frame Fabrication
TN-24590-06-02314	LAW Decontamination Unit and Glove Box - On Site Assembly
TN-24590-06-02315	LAW AHU Installation Delay due to Late Implementation of Transition Frames Design
TN-24590-06-02317	Post IFC Document Revision Activities
TN-24590-06-02318	System HSH Decontamination Tanks
TN-24590-06-02319	Labor to ODC Conversion (Process Operations)
TN-24590-06-02320	Re-align E4 Labor Distribution and ODC Travel Allocation
TN-24590-06-02322	Additional Engineering and E&NS Training
TN-24590-06-02324	Estimate to Implement DOE Order 210.2 Corporate Operating Experience Program
TN-24590-06-02326	LAB Steel Quantity Mix TN-24590-06-02328 Professional Services of SAIC
TN-24590-06-02334	Hirschfeld Steel REA's-May 2006 HLW LAPP Budget to LAW Working Package
TN-24590-06-02335	Vent Stack Restraints Field Modification
TN-24590-06-02338	Process Engineering Support for the WTP Project
TN-24590-06-02339	LAB Structural Steel Field Modification required from ORP Peer Review
TN-24590-06-02341	CM-MRA-EK00-00001 - 480V Load Centers - Add Equipment Budget and Re-Align Schedules
TN-24590-06-02342	Modification to LBL Resequencing BCP that will Correct End Dates for Project Controls
TN-24590-06-02343	HLW Annex Roof SC-1 Equipment Hardening and Screening
TN-24590-06-02344	Engineering Discipline Support for Component Identification System (CIS)
TN-24590-06-02346	Elimination of SLATE Software Maintenance (PIP E160)
TN-24590-06-02348	SQ Addition of Welding and Electrical Technical Specialists
TN-24590-06-02349	Budget Shortfall for HLW ISA Vessels
TN-24590-06-02350	LAB 480V MCC's Upsize Cable Lugs for (4) MCC's in Fabrication
TN-24590-06-02352	Convert \$1.5M from QA PP to QA WP
TN-24590-06-02353	LAW Additional Field Rebar Fabrication Quantity
TN-24590-06-02354	Redistribute Radiological Safety ODC Support Budget
TN-24590-06-02356	C/CP Bldg 82 Electrical Safety Upgrade from NEMA 1 to NEMA 12 Enclosures
TN-24590-06-02359	Reallocation of Plant Material Budgets due to Implementation of To-Date Quantities Received Earning Basis
TN-24590-06-02361	BOF Pump House Sidewalks Installation
TN-24590-06-02362	LAB Monorail and Recovery System
TN-24590-06-02363	LAW Planning Package Definitization
TN-24590-06-02365	LAB in Slab, Below Slab & In-Cell Pipe Installation
TN-24590-06-02366	Emergency Diesel Generator Re-design
TN-24590-06-02367	Additional PJM Testing - Multiple Overblows and I&C Equipment Testing
TN-24590-06-02368	Melter Feed Studies - Additional Tank
TN-24590-06-02369	LAW Bogie Rail Trend due to New Grouting Requirement-Epoxy Grout
TN-24590-06-02370	Remove Budget for ABB Technical Services Subcontract from Equipment Work Packages
TN-24590-06-02371	BOF Planning Package Definitization
TN-24590-06-02372	LAB Planning Package Definitization
TN-24590-06-02373	Consulting Agreement for Fire Protection of HEPA Filters
TN-24590-06-02374	Alignment of Cobra Dates with LBL Resequencing OTB Schedule
TN-24590-06-02376	Align PO Value Due to Escalation, Schedule Extension, & New Scope
TN-24590-06-02379	Phase 2 - Large Scale Gas Retention / Release (in the presence of anti-foam)
TN-24590-06-02380	LAW Shield Door Additional Coating
TN-24590-06-02384	Seismic Qualification of SC-I/II/III Equipment
TN-24590-06-02385	Underground Cable Size Increases
TN-24590-06-02386	RGM and Other Steel Changes Requiring New SASSI Run
TN-24590-06-02387	LAW Coatings Budget
TN-24590-06-02388	Technology Readiness Level Assessment/CRESP (Misc ORP Driven Reviews)
TN-24590-06-02391	RF Resin Stage 2 and 3 Testing Budget Re-alignment
TN-24590-06-02392	Safeguards and Security Budget
TN-24590-06-02393	HPAV Design Confirmation Studies
TN-24590-06-02394	LAW Monorail Alignment and Pour Cave Radiation Shielding Installation
TN-24590-06-02395	New C2 Duct added to BSA in LAW

Trend No.	Trend Description
TN-24590-06-02396	Continue Procurement of Concrete Related Items due to Schedule Extension
TN-24590-06-02397	Storage of Shield Windows (PT, LAW, HLW, and LAB)
TN-24590-06-02398	Jib Crane Design Evolution
TN-24590-06-02399	MH014 - Change of Design Scope for HSH Slewing JIB Coverage
TN-24590-06-02400	Addition of Eight 10.5 inch Shielding Plugs for Black Cell Access Penetrations
TN-24590-06-02401	STR Support of Fireproofing of Structural Steel
TN-24590-06-02402	PTF Internal Replanning
TN-24590-06-02404	LAB Roofing and Siding Subcontractor Delay and Acceleration
TN-24590-06-02405	LAW Schedule Delay of Roofing and Siding Subcontractor
TN-24590-06-02406	Conversion of Sprinkler System to Dry Pipe/Nitrogen in LAB Hot Cell
TN-24590-06-02407	Government Property Organization Staffing Trend
TN-24590-06-02410	LAB Subcontractor Support Job Hour
TN-24590-06-02411	Fireproofing Structural Steel Design Changes
TN-24590-06-02417	HLW HVAC Subcontract Replanning
TN-24590-06-02421	Support to DNFSB
TN-24590-06-02422	Operational Readiness - Late Adjustment Detailed Estimate
TN-24590-06-02424	LBL Resequence Estimating Corrections - Transfer to MR
TN-24590-06-02426	2007 Execution Revision
TN-24590-06-02428	LAB Design Quantity Changes from Budget for Elevated Slab
TN-24590-06-02429	QL-POA-ADDH-00007 Change Requirements to Awarded Contract
TN-24590-06-02430	WTP Assessment of Latest Seismic Boring Data
TN-24590-06-02432	MH Equipment Supplier RGM Scope Reduction
TN-24590-06-02433	PTF Floor Penetration Modules
TN-24590-06-02434	PT Room P-0332B Shield Wall Changes
TN-24590-06-02435	HLW Crane Configuration Changes
TN-24590-06-02436	Partition Wall Structural Calculations for HVAC Transfer Ducts
TN-24590-06-02438	Plant Design Support to RGM Workslope
TN-24590-06-02439	Addition of Pretreatment Hot Cell Crane
TN-24590-06-02440	HEH Cask Lidding Configuration
TN-24590-06-02441	Rebar Detailing Continuation of Services
TN-24590-06-02442	Align PO Value for Vessel Vent Caustic Scrubber - New Scope
TN-24590-06-02443	Convert CS&A Hours ODC for TSC
TN-24590-06-02445	Construction Subcontract Data Trace Resolution
TN-24590-06-02447	Concrete Bulks Estimate Adjustment for Central Pre-Mix (CPM) Schedule Extension
TN-24590-06-02448	LAW Fireproofing Repairs
TN-24590-06-02450	Moving Approved Sunflower Hours From B0 to B1
TN-24590-06-02452	Add'l Coating Requirements for LVP & HOP Carbon Bed Adsorbers
TN-24590-06-02456	Instrument Tubing Clamps
TN-24590-06-02460	Establish Process Engineering & Technology Organization
TN-24590-06-02463	Early LBL - Hot Commissioning
TN-24590-06-02464	HPAV Design Authority Revision
TN-24590-06-02465	PJM Mixing and Multiple Overblow Control
TN-24590-06-02466	Distribution of Auto-Sampler System (ASX) LAPP, including Change to Bi-Directional Carrier System
TN-24590-06-02467	Capacity Mods [1] [BCP-2307-Must Take Out 13,162]
TN-24590-06-02468	PTF Capacity Mods Undemonstrated Leaching [2 - 8]
TN-24590-06-02469	PTF Capacity Mod Utilities
TN-24590-06-02470	HLW Mod 1 Modifications to Support 7.5 MTG/Day Increased Capacity Throughput
TN-24590-06-02471	EFRT (M1 & M6) Implementation of Design Changes to Prevent Line Plugging
TN-24590-06-02472	EFRT (M3) Inadequate Vessel Mixing
TN-24590-06-02473	Materials Management Organization Startup
TN-24590-06-02475	Allocate ODC Budget for Testing of Grouted Rebars & Anchors
TN-24590-06-02476	LAW Architectural Post-IFC Budget
TN-24590-06-02477	EFRT M14 IX Resin and Related IX EFRT Activities
TN-24590-06-02478	M-12, Mod 3: Front End Leach Capacity, with Option 1
TN-24590-06-02479	LAW Partition Wall Changes
TN-24590-06-02480	Design Change to LMP System for LAW Facility
TN-24590-06-02482	Review of Intools LBL Process Data
TN-24590-06-02483	Extra storage cost NW Copper vessels thru Sept 07
TN-24590-06-02488	FY07 Budget Alignment for Duratek Tasks 1 through 7
TN-24590-06-02490	Increased Work Scope for the LOP System in LAW
TN-24590-06-02491	BOF Coating Subcontractor Support Job Hour
TN-24590-06-02493	PT and HLW Coating Subcontractor Support Job Hour
TN-24590-06-02494	Chiller Compressor Building Pipe Rack Coatings Budget

Trend No.	Trend Description
TN-24590-06-02495	Consolidation of N102A Remaining Hrs
TN-24590-06-02496	Crane Rail Splice Welding
TN-24590-06-02498	EFRT Issue M3 Program to Determine Adequacy of WTP Pulse Jet Mixer Design
TN-24590-06-02499	Line Plugging (M1)
TN-24590-06-02501	Closeout of QL-POA-ADDH-00002 Due to Unidynamics Bankruptcy
TN-24590-06-02502	Commissioning Simulants - Revision to Schedule
TN-24590-06-02503	Mixing Vessel Erosion (M2)
TN-24590-06-02504	Revise Environmental Risk Assessment per EPA Guidance & Obtain 1 Yr Air Model Data
TN-24590-06-02505	Fire Protection T-52 Warehouse Redesign
TN-24590-06-02506	Develop Dynamic Analysis Program for PTF HVAC Design
TN-24590-06-02509	Project Controls Increased Support Requirements
TN-24590-06-02510	EVMS Certification / CAR Resolution Impacts to Project Controls
TN-24590-06-02512	Additional HLW ITS Cooling for Fan Rooms
TN-24590-06-02513	HVAC Piping and Valve P&ID
TN-24590-06-02515	Plant Design Miscellaneous Conceptual Design Studies
TN-24590-06-02517	BOF Miscellaneous Piping Field Modifications
TN-24590-06-02521	Thermal Catalytic Oxidizer and Silver Mordenite Preheater Work Scope Change
TN-24590-06-02525	Refrigerant Lines for Remote Condensers
TN-24590-06-02526	LAW Carbon Dioxide Storage Vessel Quality Change
TN-24590-06-02530	Mitigate Water Droplet Formation at LAW LVP Stack
TN-24590-06-02531	BOF Safety Shower Water Temperature
TN-24590-06-02532	Safety Control Instrumentation / SSRS Additional Work and Unit Rates
TN-24590-06-02534	Early Energization of Cathodic Protection Systems
TN-24590-06-02535	Environmental Qualification Manhours for all Facilities
TN-24590-06-02540	DOW Booster Pump Removal in PTF and LAW
TN-24590-06-02543	PTF Evaporators - AREVA
TN-24590-06-02547	Reconciliation of PNNL Stack Qualification Budget
TN-24590-06-02550	CM-MRA-EL00-00009, LAW Lighting Fixtures
TN-24590-06-02551	HLW Melter Pour Spout Design
TN-24590-06-02555	Additional Engineering Hours for HVAC Environmental Qualification
TN-24590-06-02556	Re-bid of Ammonia MR #24590-QL-MS00-00008
TN-24590-06-02557	Changes to PTF Bulges / Cabinets and Bulk Valve Order
TN-24590-06-02558	Addition of Steam Traps and Strainers to BOF SCW P&IDs
TN-24590-06-02559	Generate Equipment Loads for Near-Term PTF/HLW Concrete Design
TN-24590-06-02560	New MR for Blanket Order of Distribution Panelboards and Transformers
TN-24590-06-02565	Startup LAW RWH-CRN-00008 for Beneficial Use by Construction
TN-24590-06-02567	SS Resequence Corrections and Additional Staffing Needs
TN-24590-06-02575	HLW Floor Preparation for Special Coatings
TN-24590-06-02579	LAW Process and Effluent Cell Vessel Shims/Plates/Bars
TN-24590-06-02582	LAW First Conceptual Design Report, Revised Basis of Design, & Negotiate ICD Agreement
TN-24590-06-02584	CM-MRA-AELE-00009 / QL-MRA-AELE-00009 Material Requisition Schedule Activities PREF Codes Correction
TN-24590-06-02586	Additional Coatings for WTP Equipment
TN-24590-06-02588	Six Sigma PIP - Reviewing FCR/FCNs and NCR/CDRs
TN-24590-06-02589	Calculations Resulting from CAR-06-250 Action # CAR-25-5
TN-24590-06-02590	Increase in Design Review Notice and Design Verification Activities
TN-24590-06-02591	Budget Realignment for Duratek Melter Feed Studies
TN-24590-06-02593	LAW Miscellaneous Structural Steel Modification
TN-24590-06-02595	Additional Staffing for Acquisition Services B1
TN-24590-06-02597	Consolidation of MS Equipment EPPR Accounts
TN-24590-06-02599	B7 Subcontracts - Increased Staff
TN-24590-06-02600	HLW El. 14' Steel Changes
TN-24590-06-02603	BOF Shrink Sleeve Replacement
TN-24590-06-02606	Additional C3V HEPA Housing
TN-24590-06-02607	Permanent Cranes - Radio Frequency Allocation
TN-24590-06-02609	Budget for New & Existing Material Requisitions for C&I
TN-24590-06-02610	Transfer of HLW and LAW Spare Melter Budget from Commissioning to Engineering
TN-24590-06-02612	Battelle/PNNL Contract Conversion
TN-24590-06-02614	BCP HLW Film Cooler (M17)
TN-24590-06-02618	Steam Sys. & High Energy Line Study-CRPT-QA-06-218 Actions
TN-24590-06-02619	EVMS Compliant Control Account Structure
TN-24590-06-02621	Definitization of DOE Order 226.1, Implementation of DOE Oversight Policy
TN-24590-06-02624	Process Limits Definition (M6) R&T Activities

Trend No.	Trend Description
TN-24590-06-02625	Radar Polypropylene Window Additions
TN-24590-06-02630	Sanitary Sewer O&M Manual Revision
TN-24590-06-02631	Modify Leak Detection System for LMP-LDB-00001 & 00002
TN-24590-06-02633	CAR 2 Corrective Action Phase I - Reverse Implemented PEM Claims Budget WPs to MR
TN-24590-06-02634	CAR 2 Corrective Action Phase II - Reallocate PEM Remaining Claims Budget LAPP to MR
TN-24590-06-02636	Bus Duct Related Rework and Inefficiencies
TN-24590-06-02637	SQ Shift-Transfer of ODC 89 into Direct Hire 1313
TN-24590-06-02639	Humphreys & Assoc. Increase
TN-24590-06-02641	Automated Flush to Bubbler Racks for LAW and HLW Facilities
TN-24590-06-02643	Transfer of Remaining Budget in 1.08 EQ to Other Accounts
TN-24590-06-02644	LAW Miscellaneous Piping Changes
TN-24590-06-02646	Review of DOE Order 420.1B for Impacts to WTP
TN-24590-06-02648	LAW Removal of Fireproofing and Rework due to NLD Dwg Changes
TN-24590-06-02649	BCP Transfer Budget from PP to WP
TN-24590-06-02650	Transfer of Process Engineering & Flowsheet Modeling Scope from Engineering Mgt Account
TN-24590-06-02652	BCP EFRT Budget Re-distribution
TN-24590-06-02654	Develop Standard CM Cable Tray/Conduit Support Detail Dwgs and Model Raceway Supports in PTF 3D Model
TN-24590-06-02655	4-Month DOE ORR to 2-Month DOE ORR
TN-24590-06-02658	LAW/LAB Fabrication Isometrics
TN-24590-06-02660	Fabricated Panel Order - New Material Requisition
TN-24590-06-02662	Align Work Packages with the Correct Control Accounts
TN-24590-06-02664	Transfer E&NS Budget from Planning Packages to Work Packages
TN-24590-06-02665	Create 1.08.HH-PW LOE Control Acct & Req'd OBS Change E&NS
TN-24590-06-02666	BCP-Create 1.08 DL PW LOE Control Acct for Eng
TN-24590-06-02670	HVAC PP to WP Conversion
TN-24590-06-02671	BCP CAR 05 (BCP not taken the same manner as BCWS) Closure
TN-24590-06-02672	Coupled Analysis of PTF and HLW Filter Caves
TN-24590-06-02673	Modifications to LAW as a Result of Environmental Qualification
TN-24590-06-02675	Change to PSA System & Add'l Piping for LAW Steam Systems
TN-24590-06-02677	Time Related Costs for Execution Strategy Revision
TN-24590-06-02680	Resolution of Process Engineering Confirmed Calculation Budget
TN-24590-06-02682	Revise Panel to Implement 3 Pole Breakers Multi-Wire Branch Circuits
TN-24590-06-02683	Upgrade of Plant Fiber Optic Cable for Distance and Bandwidth
TN-24590-06-02684	Implementation of Pipe Support ABAR into Criteria, Guides, and Standard Calculations
TN-24590-06-02685	Stellite Cone and Ring Beam NDE N690 Redesign
TN-24590-06-02686	Review of Vendor and Other Discipline Documents
TN-24590-06-02687	Overflow Calculations Resulting From CRPT-05-140
TN-24590-06-02688	AEA Manipulator Tool Power/Removal Changes
TN-24590-06-02689	490 Curtailment Cost/Schedule Delays for Power Manipulators Remobilization
TN-24590-06-02690	PVP Header Pressure
TN-24590-06-02691	LVP-SCB-00001 Design Scope Change
TN-24590-06-02693	HLW Decon Pit Shield Limits
TN-24590-06-02696	24590-QL-POA-MEEM-00001 Schedule Change Melter 1 - LAW
TN-24590-06-02697	BCP Budget Trans Matl PP 4MT-081960-PP to GE-Ionics
TN-24590-06-02698	HLW Mod 2 - Plant Components for Potential Future HLW Concentration Annex
TN-24590-06-02699	PTF AB Design Review Support
TN-24590-06-02700	Engineering Support to Melter Fabrication
TN-24590-06-02701	P&ID Enhancement Program
TN-24590-06-02702	DOE Order 413.3 LAPP Savings and Configuration Mgt of Vendor P&I's
TN-24590-06-02703	BCP - LAW Hydrogen LAPP to PP
TN-24590-06-02707	LAW Container Overpack/Elevator Cooling Modifications
TN-24590-06-02709	CSA Support to WTB Pipe & Cable Tray Supports
TN-24590-06-02710	Ultrafilter Drain Cleanout Demonstration Testing
TN-24590-06-02711	LAW Piping Commodities Forecast Revision
TN-24590-06-02713	Incorporation of Revised Standard 1 - Cost Estimate
TN-24590-06-02715	Equipment PP Transfer from MAR 07 to MAY 07
TN-24590-06-02717	Commissioning PP Transfer from MAR 07 to APR 07
TN-24590-06-02718	LAB Structural Steel Pricing Revisions
TN-24590-06-02719	LAW Pour Cave Cooling Panel Installation
TN-24590-06-02721	Support Services Additional Lease Space
TN-24590-06-02723	Increased CDF Backfill Quantities / Melter Assembly Pad Electrical Changes
TN-24590-06-02724	Additional HVAC Subcontract Support Craft Hours

Trend No.	Trend Description
TN-24590-06-02725	Replace Installed Unscheduled Cable/Welding Receptacle Insta
TN-24590-06-02726	SS Resequencing Correction- Support Services Labor
TN-24590-06-02727	Create Additional Control Accounts for PT & HLW
TN-24590-06-02729	LAB Steel Quantity Mix (New changes from OCT 2006 QDP)
TN-24590-06-02730	Air Inbleed for LAW LOP Film Coolers
TN-24590-06-02731	Rad Transfer Lines Shrink Wrap Analysis
TN-24590-06-02732	Increased Receiving Inspection Work Load (B6)
TN-24590-06-02735	Melter Feed Studies Task 8 - Schedule Re-baselining and Additional EFRT Scope
TN-24590-06-02736	Lease Rate and Co-Location impacts to Support Services
TN-24590-06-02737	Fire Modeling of Selected Areas of WTP Facilities
TN-24590-06-02738	Miscellaneous Steel Detailing Services
TN-24590-06-02739	Transfer Of Scope From Plant Equipment Group
TN-24590-06-02740	HLW Electrical Joggle Purchase Strategy Change
TN-24590-06-02741	BCP Changes to C&I ID for Work Packages
TN-24590-06-02742	PTF Jumper Material Re-estimate
TN-24590-06-02743	BOF Excavation Unit Rate Adjustment
TN-24590-06-02748	LAW - Additional Transition Frames for AHUs and FCUs
TN-24590-06-02749	Reversal of Plant Equipment Budget from Management Reserve
TN-24590-06-02753	WTP Rebar Density Savings
TN-24590-06-02754	CFD Design Evolution and Delay
TN-24590-06-02755	HDH Decon Vessel Heating System
TN-24590-06-02757	Negotiated Savings - Six Sigma PIP 012
TN-24590-06-02758	LAW Piping Unit Rate Forecast
TN-24590-06-02759	BCP Alignment of Equip Mang System to Baseline Schedule
TN-24590-06-02762	BCP Reallocation of Plant Equipment Scope
TN-24590-06-02763	Physical Configuration Audit for HLW Shield Doors Melter Cave
TN-24590-06-02764	490 Curtailment Suspension Cost Wall Mounted Light/Socket Assemblies
TN-24590-06-02767	Implement ABB Process Control Device Library for ICN Software
TN-24590-06-02768	ISARD Revision 4 Delayed Start
TN-24590-06-02769	Additional Engineering Training
TN-24590-06-02770	Criticality Safety HAZOP
TN-24590-06-02771	Convert PP to WP
TN-24590-06-02773	Convert HVAC PP to WP
TN-24590-06-02775	Reversal of Plant Material Budget from Management Reserve
TN-24590-06-02777	Process Engineering and Flowsheet Modeling COBRA Reload
TN-24590-06-02779	HFP Vessels Hydrogen Generation Mitigation Study
TN-24590-06-02781	Distribution of Auto-Sampler (ASX) Phase II
TN-24590-06-02784	LAW PP to WP Conversion
TN-24590-06-02786	Forward Pricing Rates (FPR) (May-2007)
TN-24590-06-02787	Excess Government Property Disposal
TN-24590-06-02790	Removing Freight Budget (B4)
TN-24590-06-02791	Savings LAW Equipment award less than budget
TN-24590-06-02793	Savings Reduction in planned revisions
TN-24590-06-02794	Savings LAW & BOF Elec Bulk Commodity Quantity Reduction
TN-24590-06-02795	Savings Potential reduction in RGM EAC
TN-24590-06-02796	Convert Planning Pkg Work Pkg for DOE Order 414.1C
TN-24590-06-02798	BOF Long Term Storage and Setting Chillers
TN-24590-06-02799	BOF Glass Former Slab - Silos and other Equipment
TN-24590-06-02800	Commercial Grade Dedication Activities
TN-24590-06-02801	BCWS Point Adjustment Control Point Repair
TN-24590-06-02802	PATS 618,974,2545,2696,2839 Budget Redist-Follow BCP-02749
TN-24590-06-02803	BSA Compressors - Increase in Chill Water Pressure Rating
TN-24590-06-02804	CM Receipt Inspection Work Scope Shift from Materials Manage
TN-24590-06-02807	EFRT M-17 Film Cooler Redesign and Testing
TN-24590-06-02809	490 Curtailment Suspension Cost for Through Wall Manipulators
TN-24590-06-02810	490 Curtailment Suspension Cost for 13.8 KV Switchgear
TN-24590-06-02811	Change in Contracting Strategy for Penetration Seals
TN-24590-06-02812	Reversal of Budget for DOE M 205.1-2 (IS&T)
TN-24590-06-02813	Referral Bonus Program
TN-24590-06-02815	LAB Additional Activity to Support Deck Slab
TN-24590-06-02816	Extension of Process Engineering Support
TN-24590-06-02817	BOF - S/C Insulation and Heat Trace Reschedule
TN-24590-06-02818	Transfer DOE Order 226.1 from PP to Management Reserve

Trend No.	Trend Description
TN-24590-06-02819	HLW EI 14 ft to 37 ft Gatepost Milestone Reschedule
TN-24590-06-02820	Procurement of Bulk Plate Material
TN-24590-06-02822	BOF setting of Dryers
TN-24590-06-02823	Design Changes to Conduit Requires an Increase to Direct Hire Job Hours
TN-24590-06-02825	LAW - Pour Cave Cooling Panel Support
TN-24590-06-02830	Compliance with DOE/WTP Security Requirements at WTP Satellite Offices
TN-24590-06-02831	LAW Remove Intumescent FP on 14X90 Columns & Reapply with Cementitious
TN-24590-06-02833	Transfer of LAB Equipment Level 4 Schedule Responsibilities
TN-24590-06-02836	LAW Melter Slab
TN-24590-06-02838	LAW Special Coatings PP to WP Conversion
TN-24590-06-02839	Implementation of 10 CFR 851-Worker Safety and Health Program
TN-24590-06-02843	Implementation of Official Use Only (DOE Order 471.3 and DOE M 471.3-1)
TN-24590-06-02844	LAW Melter Lid Calculation Subcontract
TN-24590-06-02848	Degraded Anti-Foam and Impacts on Gas Retention/Release
TN-24590-06-02850	In-House Rack Design Schedule Alignment
TN-24590-06-02851	Alignment of PP within the EMS to overall completion dates for the facilities
TN-24590-06-02852	LAW Planning Pkg to Work Pkg Conversion
TN-24590-06-02853	Schedule Changes LBL HVAC Design Support Activities
TN-24590-06-02854	Construction Distributions Budget Increase (June 06 - Mar 07) due to Direct Craft Labor BCPs
TN-24590-06-02855	LAB PP to WP
TN-24590-06-02857	PT Favorable Cost Variance Scope Completion
TN-24590-06-02859	Add Column Splice at El. 81'
TN-24590-06-02860	Align BCWS to post ESR Baseline Schedule
TN-24590-06-02863	Transfer of Operational Risk Assessment Budget
TN-24590-06-02866	Deferral of CY 2007 Early LAW Conceptual Design Report and Early LAW Commissioning Activities
TN-24590-06-02867	E&NS Support to DNFSB Meetings
TN-24590-06-02868	LAB Communication Data Drop Additions
TN-24590-06-02870	New Material Handling Facility and Relocation of Marshaling Yard
TN-24590-06-02871	HLW Transfer Part of Curtailment Construction Scope to Marshaling Yard
TN-24590-06-02872	ASCE-4 Modal Combination Piping Reanalysis
TN-24590-06-02876	Phase II Pre Eng Type A Bldgs (affected facilities BOF, LAW)
TN-24590-06-02878	LAW Planning Package to Work Package
TN-24590-06-02879	LAB Convert Sub-Contract Planning Packages to Work Packages
TN-24590-06-02882	ICD 19 Reconciliation Trend Study
TN-24590-06-02883	PP Replan for R&T for PW and PT
TN-24590-06-02887	Sub-Contracts Planning Package to Work Package Conversion
TN-24590-06-02888	BOF Motor Starter Planning Package to Work Package Conversion
TN-24590-06-02889	PT Facility Planning Package to Work Package Conversion
TN-24590-06-02891	Descoping of Remote Clamp Connector MR
TN-24590-06-02892	PT Sub-Contract Planning Package to Work Package Conversion
TN-24590-06-02894	Staff Reduction for LA-ICP-AES
TN-24590-06-02897	LAW FY07 Gatepost Milestones
TN-24590-06-02898	RF Testing Cost Under Run
TN-24590-06-02901	Relay Setpoints and Setting Reports
TN-24590-06-02902	Movement of LAW Non-Camera Equipment from one L4 Schedule Activity to another
TN-24590-06-02903	BOF Planning Package to Work Package Conversion
TN-24590-06-02906	BOF RAD Lines, Insulation of DOE and RAD Lines
TN-24590-06-02907	Hirschfeld Steel Company Request for Equitable Adjustment - Negotiated Settlement
TN-24590-06-02908	BOF EFRT Scope Allowance Removal
TN-24590-06-02909	LAB Hot Cell Trolley System
TN-24590-06-02911	LAB Concrete Favorable Performance
TN-24590-06-02912	EMS Level 5 Alignment to Level 4 Baseline Schedule
TN-24590-06-02914	Postponement of Diesel Generator Tank Coating Activities
TN-24590-06-02915	Transfer of Hours to ODCs to Fund BOA Contract
TN-24590-06-02916	CSA HLW Schedule Revision
TN-24590-06-02917	NDE Reduction for Welds on Pipework in Hard to Reach Areas
TN-24590-06-02918	PP Replan for R&T for HLW & LAW
TN-24590-06-02919	LAW Embed Quantity Reduction
TN-24590-06-02921	C&I Control Strategy Design Review
TN-24590-06-02922	Three Part Schedule Logic Correction
TN-24590-06-02924	Impact of Revised CGD Requirements for the HOP and LVP Carbon Bed Absorbers
TN-24590-06-02929	M3/M2-Inadequate Vessel Mixing/Erosion
TN-24590-06-02930	HLW MOD-1 Support for 7.5MTG/day Next Generation Melter Throughput

Trend No.	Trend Description
TN-24590-06-02932	PTF Capacity Mods Utilities
TN-24590-06-02936	LAB Installation of Floor Mounted Jib Crane
TN-24590-06-02937	HLW HVAC Restart
TN-24590-06-02938	Claim for 222S LA ICP-AES Instrument
TN-24590-06-02940	Budget to Provide Large Scale for Effects of AFA on Gas Retention/Release
TN-24590-06-02941	Technology Maturation Plan IRPs & VE Study Prep
TN-24590-06-02943	M5 and M9 Late Adjustment PP to PP transfer within Commissioning Budgets
TN-24590-06-02946	Conversion of PP to WP Canister Racks QL-POA-SY00-00003
TN-24590-06-02949	Seismic Calc for SC-1 & SC-2 Gypsum Board Walls in PT & HLW
TN-24590-06-02950	Generate Equip Loads for PTF/HLW Concrete Design to Support L4 Schedule
TN-24590-06-02953	Partial Commissioning Distribution of the 1.08 WBS
TN-24590-06-02954	Backflow Preventers
TN-24590-06-02955	LAW Swab Manipulator Container Height Adjustment
TN-24590-06-02956	Replan Subcontract Support for Safety Document Maintenance
TN-24590-06-02957	BOF & LAB Equipment Favorable Savings
TN-24590-06-02959	Plant Equipment Non-Negotiated Claim Return to Management Reserve
TN-24590-06-02961	Study for Steam Heating UFP Vessels - EFRT PT M12 changes
TN-24590-06-02962	Cesium Nitric Acid Neutralization
TN-24590-06-02963	ODC's to support E&NS HPAV activities
TN-24590-06-02965	Savings on Silver Mordenite Columns
TN-24590-06-02967	Alignment of LAW Melter Budgeted Cost for Work Scheduled (BCWS) with the existing Purchase Order
TN-24590-06-02968	Implementation of M095 - Add DOE M 442.1-1 (DPO)
TN-24590-06-02972	LAW: Recovery from Unidynamics Bankruptcy and Arch - Roofing and Siding
TN-24590-06-02973	LAW 1) Bulk Installation Package 2) Annex Roof Decking 3) Vent Stack Piping
TN-24590-06-02974	LAW CGD Requirements for the LVP Carbon Bed Absorber
TN-24590-06-02976	Fluidic Devices Jet Pulse Mixers ECAR for QL-POA-MPE0-00002
TN-24590-06-02981	Descoping of Undefined Plant Equipment Planning Packages
TN-24590-06-02982	Startup Impacts Due to Fire Service Water PP to WP conversion
TN-24590-06-02983	Commissioning Impacts Due to Fire Service Water PP to WP Turnover
TN-24590-06-02984	LAW Transition Frames
TN-24590-06-02985	LAW Planning Pkg to Work Pkg Conversion
TN-24590-06-02986	LBL Subcontracts PP to WP Conversions
TN-24590-06-02990	Alignment of HLW Melter BCWS with existing PO QL-POA-MEEM-00002
TN-24590-06-02993	PP Start Date Correction - ER-BCP-03-PP
TN-24590-06-02994	PP Start Date Correction - ER-BCP-05-PP
TN-24590-06-02996	LAW Melter Feed Simulant Replacement
TN-24590-06-02998	HLW Convert PP to WP
TN-24590-06-03001	Commercial Grade Dedication Schedule
TN-24590-06-03002	Subcontract Planning Package to Work Package Conversion
TN-24590-06-03003	CO2 Pelletizers System Design Changes
TN-24590-06-03004	Acquisition Services into Three Control Accounts
TN-24590-06-03008	North Lay Down Yard Relocation
TN-24590-06-03010	IHLW Rescreening of WAI Items and Canister Calculations
TN-24590-06-03012	Engineering Automation Staffing & Training Increase
TN-24590-06-03015	Added 8 Start-Up Flanges for FSW
TN-24590-06-03016	LAW Annex Roofing and Siding Budget
TN-24590-06-03017	Marshalling Yard Consolidation - Labor Savings
TN-24590-06-03019	Commissioning Task Replan
TN-24590-06-03020	LBL Replan
TN-24590-06-03025	Startup Instrument Calibration budget transfer to C&T Maintenance
TN-24590-06-03027	Change logics for Hammock activities for transition to P5
TN-24590-06-03029	M-12 Pretreatment Engineering Platform Utility Increase for Vertical Filters
TN-24590-06-03030	M-2 Additional Testing
TN-24590-06-03032	Savings on West Metals
TN-24590-06-03033	Collection of PJM test Results
TN-24590-06-03035	WTP Project Selective use of WSGM
TN-24590-06-03038	Permit/Risk Assessment Schedule for EFRT/Capacity Modifications
TN-24590-06-03039	490 Curtailment Costs & Schedule delays for Weir Hazleton Feed Vessel Pump
TN-24590-06-03040	Additional REAs to HLW Melter Fabrication
TN-24590-06-03043	Addition of Facility DOW Expansion Tanks
TN-24590-06-03046	PP to WP Conversion - Plant Equip Exec Rev Impacts
TN-24590-06-03047	Transfer of Budget and Schedule for ASD Procurement
TN-24590-06-03048	Unsolicited Vendor REA - LAW Melter Spool Connections

Trend No.	Trend Description
TN-24590-06-03050	1.08-HH Staffing Variance
TN-24590-06-03051	EFRT Major Issues M15 - Availability, Operability and Maintainability
TN-24590-06-03052	Subcontract PP to WP Conversion
TN-24590-06-03053	Moving PW Warehousing & 2nd waste tracking from PT equipment
TN-24590-06-03056	Savings on Condensate Collection Vessels
TN-24590-06-03057	Startup Impacts Due to Early Energization of Cathodic Protection System - PP to WP Conversion
TN-24590-06-03067	Addition of Process Regulator Scope for LAW & HLW Erroneously Omitted in Bulk Transfer
TN-24590-06-03068	Reallocation of Budget for Elec Work PP in Equip Mang Sys
TN-24590-06-03069	LAW 5-Part Rework
TN-24590-06-03070	HLW Baseline Schedule Logic Corrections
TN-24590-06-03075	PT & HLW Mixing Design Evaluations
TN-24590-06-03076	Material Management Staffing Increase - Non Manual
TN-24590-06-03078	BOF PP to WP and Replan
TN-24590-06-03079	Allocating budget into correct WP
TN-24590-06-03080	LAW Convert PP to WP
TN-24590-06-03081	Increased Field Non Manual Requirements for CY08
TN-24590-06-03082	Transfer of CSA Hours to ODCs for ESQ Subcontract
TN-24590-06-03084	BOF - Coating of Pipe Rack Connections
TN-24590-06-03085	LAW Caulking
TN-24590-06-03086	Additional Scope for EFRT Issue M-2 Vessel Erosion
TN-24590-06-03087	LAW Freight Elevator Schedule Delay
TN-24590-06-03091	LAB Change logics for Hammock activities for transition to P5
TN-24590-06-03092	Additional Manhours for Construction Equipment Inspection/Spotters
TN-24590-06-03096	LAB Stack Internal replan
TN-24590-06-03097	Plant Design HPAV Schedule Update
TN-24590-06-03098	Concrete Pump Truck Increased Efficiency PT & HLW Commodity Installs
TN-24590-06-03105	Intools Input Effort - Schedule Correction
TN-24590-06-03111	HFP Overflow Flapper Valves
TN-24590-06-03112	PTF Bulge CRPT-06-219 Issue Resolution
TN-24590-06-03113	OSHA 2 Inch Running Clearance for HLW Maintenance Cranes
TN-24590-06-03114	REA Settlement for Still-Water QL-POA-PF00-00002
TN-24590-06-03116	Adding schedule activities for QL-MRA-MJW0-00003
TN-24590-06-03119	Property Management Scope and Budget Transfer from Acquisition Services to Material Management
TN-24590-06-03120	UFP and PWD Vessel Ring Beams Refabrication
TN-24590-06-03121	80% Bulk Material and Equipment Reforecast
TN-24590-06-03122	Assess Impact of Implementing DOE M 470.4-1 and DOE M 470.4-2
TN-24590-06-03128	HLW Schedule Logic Corrections to Construction Schedule
TN-24590-06-03129	Cylinder Bottle Pressurized PP to WP Conversion
TN-24590-06-03133	Create Material Milestones in Primavera
TN-24590-06-03134	PP Replan for HLW and LAW
TN-24590-06-03137	LAB Communications Change to Cable Tray
TN-24590-06-03138	Lifting Beam Specification Revision and Capacity Increase
TN-24590-06-03139	Crane Combustible Inventory Reduction
TN-24590-06-03140	Capacity Mod Impacts to HLW Canister Racks
TN-24590-06-03141	Change HLW HEME Internal Components to Q
TN-24590-06-03142	Potential Reduction in HLW ODC's
TN-24590-06-03144	BOF Maintenance and Janitorial Services for the Simulator Building
TN-24590-06-03145	Replan of To-Go Hours for Developing Testing Admin Procedures
TN-24590-06-03149	Realign MS Schedule for Field Change Documents
TN-24590-06-03150	BOF Glass Former Storage Resequence
TN-24590-06-03152	BOF Site wide Cathodic Protection
TN-24590-06-03153	LAB - PP to WP
TN-24590-06-03154	Positive Cost Variance in H3 Accounts
TN-24590-06-03155	Additional Construction Safety Program Costs CY08/09
TN-24590-06-03156	Transfer Budget from Construction Bulks to Subcontractor Fireproofing
TN-24590-06-03157	BOF Subcontractor Cable Identification
TN-24590-06-03158	Flooding Trend (Study Only)
TN-24590-06-03160	Redesign of Cooling System for LAW Melter Lid
TN-24590-06-03161	Pre Eng Type A Bldgs Phase II Cost Increase
TN-24590-06-03162	Transfer Testing of Grayloc's from Equipment to ENG ODC
TN-24590-06-03164	LAW - Revised Bolt Tightening Requirements
TN-24590-06-03166	PT Vessel Subcontract to Direct Hour Conversion
TN-24590-06-03167	New Warehouse Lease Cost

Trend No.	Trend Description
TN-24590-06-03171	HLW Planning Package to Work Package Conversion
TN-24590-06-03173	Purge Air for Hydrogen Mitigation in LAW Vessels
TN-24590-06-03174	Additional Funding for RIO MR# 24590-CM-MRA-JC00-00006
TN-24590-06-03175	Cost Increase & Schedule Delays for HLW CCTV Due to 490 Funding Limitations/Design Evolution
TN-24590-06-03177	Schedule Logic Correction for C&I LAW Confirmed Calculation
TN-24590-06-03178	Down-Trend for HLW Spooled Pipe
TN-24590-06-03179	Implementation of Equipment Qualification Program
TN-24590-06-03180	Broad-Based Review
TN-24590-06-03181	QL-POA-MEEM-00001 Approved ECAR's
TN-24590-06-03183	LAW - Pour Cave Cooling Panels - Monorail Modification
TN-24590-06-03184	LAW Scaffolding Support for Partition Walls
TN-24590-06-03186	QL-POA-MEEM-00002 Approved ECAR's
TN-24590-06-03188	Jumper Data Sheet Schedule Alignment
TN-24590-06-03189	Piping Joggle Transfer of Budget from Concrete Embedments to Plant Material and Pricing Reconciliation
TN-24590-06-03193	Deferral of CY 2008 Early LAW Activities to CY 2009
TN-24590-06-03195	REA Settlements for PaR Systems, Inc.
TN-24590-06-03196	Sub-Contracts Planning Package to Work Package Conversion
TN-24590-06-03198	Engineering Management Staffing Alignment
TN-24590-06-03201	HLW Mods HVAC Design Mitigating Loss of Cooling/Heating Accidents
TN-24590-06-03202	Heavy Lift Crane Mats
TN-24590-06-03206	PTF PP to WP and Clarification of Work Scope
TN-24590-06-03207	Correct omission / error from BCP 06-3004 3 Control Accounts
TN-24590-06-03208	Increase Cost for Severe Weather Doors
TN-24590-06-03209	Impacts to LAW and LAB Coiling Door Subcontract
TN-24590-06-03210	HLW Engineering Impacts from In-Structure Response Spectra (ISRS) Changes
TN-24590-06-03212	LAB Steel Quantities
TN-24590-06-03214	PT Hot Cell Crane Rail Beam Addtl NDE/Weld Rqmts Vendor Supplied Crane Rails
TN-24590-06-03216	Transfer of Production and Added Scope for Software Life Cycle Documents
TN-24590-06-03217	Correction of BCWS in two of PT Equipment Pos
TN-24590-06-03218	Extension of the Material Requisition BEA Cycle
TN-24590-06-03219	Additional Budget Required to Support Evaluation of DOE-STD-1066 Impact on WTP HEPA Systems
TN-24590-06-03220	Glovebox and Posting Machine Schedule Revision due to 490 Funding Limitations
TN-24590-06-03228	Forward Pricing Rates (FPR) (Dec-2007)
TN-24590-06-03229	BOF Site Wide Vacuum Truck
TN-24590-06-03230	PTF Internal Replan Concrete
TN-24590-06-03231	BOF Pipe/Water Treatment Bldg. Concrete Trend
TN-24590-06-03233	LAW Fire Protection Obstruction Corrections
TN-24590-06-03234	BOF PP to WP conversion
TN-24590-06-03236	PT - Enclosure of stairwells & North Side for Weatherization
TN-24590-06-03237	Removal of Parasitic Loads from the Fire Service Water System
TN-24590-06-03239	Actuated Jumper Valves - Specification and Procurement by C&I
TN-24590-06-03241	Revisions to HLW Cranes and Cable Reels
TN-24590-06-03243	Non-Logic Driven Activities Re-Plan for Plant Design
TN-24590-06-03244	Addition of Fire Barrier Drawings to CSA Scope
TN-24590-06-03245	Safeguards and Security Budget Transfer
TN-24590-06-03247	Addition of Humidification to HLW C2 AHUs
TN-24590-06-03251	LBL Near Term Title III Engineering Hours
TN-24590-06-03253	PT Internal Replan of HVAC PMB
TN-24590-06-03254	Engineering Procedures and Processes Staff Increase
TN-24590-06-03260	Align Equipment, Budget & Schedule for MH MRs
TN-24590-06-03262	Additional Criticality Support
TN-24590-06-03264	Construction Subcontracts Planning Packages to Work Packages.
TN-24590-06-03265	LA-ICP-AES Installation Site Testing
TN-24590-06-03266	Remove Construction Escalation Activities
TN-24590-06-03268	LAW, Convert Eight Planning Package to Work Packages
TN-24590-06-03269	Correction of Time Phasing for PT Equipment BCWS previously incorrectly stated as Complete
TN-24590-06-03270	Reconciliation of Execution Revision Equipment Budget
TN-24590-06-03271	PTF Committed System To Go Unit Rate Alignment
TN-24590-06-03272	Revision of the PTF Preliminary ISM Schedule to Reflect Revised Design Schedule
TN-24590-06-03273	Early LAW 2014 Commissioning Conceptual Design Study and Report
TN-24590-06-03275	Storage Costs for Suspended Pressure Vessels
TN-24590-06-03278	Emergency Diesel Generator Alternatives Study

Trend No.	Trend Description
TN-24590-06-03279	Revision To Startup Generic Logic In The Baseline Schedule
TN-24590-06-03280	Ultrafilter Tube Failure Investigation
TN-24590-06-03283	UFP Vessel Modifications Due to Capacity Mods
TN-24590-06-03284	OBS HB Plant Wide Favorable Variance
TN-24590-06-03285	Mentoring EPCON -Supplier Quality & Quality Assurance
TN-24590-06-03287	Transfer of Six Sigma from Proj Bus Mgmt to Quality and Performance Assurance
TN-24590-06-03289	Planning Package to Work Package Conversion for C&I Plant Equip
TN-24590-06-03292	Implement Pipe Spt ABAR in Criteria, Guides, & Std Calcs - Phase II
TN-24590-06-03294	LAW Elevator Guide Rail
TN-24590-06-03295	LAW - Elevation +48 Adsorber 1A and 1B
TN-24590-06-03296	Modification to Sodium Hydroxide Reagent Piping & Controls
TN-24590-06-03297	Shield Door Recovery Device Receiver Add to Crane Maint Shield Door Scope
TN-24590-06-03299	M&PE Engineering EQ Implementation
TN-24590-06-03301	LAW Pour Cave Cooling Panel Emissivity Requirements
TN-24590-06-03304	Favorable Trend for PTF Crane Maintenance Shield Door
TN-24590-06-03306	BOF Internal Replan
TN-24590-06-03307	HLW Delete BCP Budget Place Holder Activities
TN-24590-06-03308	Realignment of HLW Steel Budget and Quantities per Hirschfeld Steel Contract
TN-24590-06-03309	LAW Combined Trend
TN-24590-06-03310	Place PT PVV Fans on Emergency Diesel Generator Power
TN-24590-06-03312	HLW Electrical Joggle Purchase Strategy Change
TN-24590-06-03313	LAW Pour Cave Panel and Hanger Installation; LFH Shard Samplers; Vessels 2 & 4; & Pipe Interference w/Lug
TN-24590-06-03314	LAW - Finish Line Hoists Monorail Lidding/ Dual Rail Hoists/ JIB Cranes
TN-24590-06-03315	Transportation and Refurbishment of ACECO cranes
TN-24590-06-03316	LAW Piping Planning Package to Work Package
TN-24590-06-03318	Impact of Preparation Guide for US DOE Nonreactor Nuclear Facility Safety Analyses
TN-24590-06-03319	Assess Impact to Preparation for Cost & Schedule Estimate for Installing Third Melter
TN-24590-06-03320	C&T Laboratory Labor Underrun
TN-24590-06-03321	Emergency Diesel Generator Evaluation - Schedule Logic Changes
TN-24590-06-03322	REA for Oregon Iron Works (24590-QL-POA-ADDH-00007)
TN-24590-06-03323	PP Replan for M-6 Process Limits Definition
TN-24590-06-03324	PP Replan for Alt Resin Stage III Testing
TN-24590-06-03325	Construction Distribs Budget Increase (April '07 - Sept '07) due to Direct Craft Labor BCPs
TN-24590-06-03326	LAW Melter Lid Modifications
TN-24590-06-03327	LAB Planning Package to Work Package
TN-24590-06-03328	LAW Planning Package to Work Package Conversion
TN-24590-06-03330	Delete R&T Testing of Antifoam Impact on Filter Flux
TN-24590-06-03332	Analysis of Concrete Temperature Around Hot Pipe Penetrations
TN-24590-06-03333	HLW Melter Seismic Calculation
TN-24590-06-03335	LAB Construction Mechanical Equip Schedule Correction
TN-24590-06-03336	HLW Carbon Bed Adsorbers (CBA) Fabrication & Delivery Delay
TN-24590-06-03341	BOF/LAB Rod Room Attendant
TN-24590-06-03344	LAW - Install steel supports for LSH-CRN-00011 and LSH-CRN-00012 bus bars
TN-24590-06-03347	HLW Construction PP to WP
TN-24590-06-03350	HLW Radar Level Test Foaming Issues when Agitation is Stopped
TN-24590-06-03351	Subcontracts Converting PP to WP
TN-24590-06-03354	Jumper - Frame Vendor Proof of Performance Program
TN-24590-06-03356	ITS Valves for LAW Water Shutoff
TN-24590-06-03357	TLP Reboiler Modification
TN-24590-06-03358	Updated Quantities and Unit Rates for HLW MS Post-Committed Work
TN-24590-06-03359	Correction of Overstated PT Jumper Budget
TN-24590-06-03360	Transfer Safety Assurance Scope and Budget from PBM to Quality Assurance
TN-24590-06-03362	Flowdown of Non-Destructive Examination Requirements to Piping
TN-24590-06-03363	PE&T Functional Manager
TN-24590-06-03364	Electrical Bulk Material Quantity & Pricing Update for LAW
TN-24590-06-03366	LAW 2014 Cost & Schedule Evaluation
TN-24590-06-03367	BOF - Pipe Rack 5C/5B, PT/HLW Interference
TN-24590-06-03368	Schedule Logic Correction for EPPR activity 01-J1123-002 PJM Design Activities
TN-24590-06-03370	Property Management Budget Transfer from Acquisition Services (WP 1.08-B0) to Material Mgmt
TN-24590-06-03371	BOF Steam Plant PP to WP
TN-24590-06-03374	Engineering Training Forecast FY08/09
TN-24590-06-03375	Adjust BCWS for Pipe Spools due to Engineering Holds on Pipe Spool Releases

Trend No.	Trend Description
TN-24590-06-03377	PTF Plant Design Utility Rack EPPR Code Ties
TN-24590-06-03378	PTF Plant Design RGM EPPR Code Ties & Schedule Realignment
TN-24590-06-03379	Budget for a Full Time Electrical Authority Having Jurisdiction (AHJ) Position
TN-24590-06-03381	Allyl Alcohol Method Regulatory Requirements
TN-24590-06-03383	Forward Pricing Rates (FPR) (Mar-2008)
TN-24590-06-03385	Planning Element Clean-up
TN-24590-06-03386	Correction of overstated bud, for PO 24590-QL-POA-MJKG-00004
TN-24590-06-03387	Propane Line Failure Testing/ DFO Coating Repairs
TN-24590-06-03390	BOF NLD/DFO Electrical Underwriters Laboratories Inspections/Modifications.
TN-24590-06-03392	Positive Cost Variance in Plant Wide Design ODC's
TN-24590-06-03395	Correction of Overstated Budget CM-MRA-MEEM-00001
TN-24590-06-03396	Correction of Overstated Budget QL-POB-MVA0-00010
TN-24590-06-03397	Implementation of Topography Reviews
TN-24590-06-03398	LAW PP to WP
TN-24590-06-03399	LAB Construction Electrical Equipment Schedule Activity Definitization
TN-24590-06-03400	PJM Overblow Testing (Favorable)
TN-24590-06-03401	Review of the CGD Program
TN-24590-06-03407	EFRT M3 - IRP Revision and Additional Test Planning Scope
TN-24590-06-03408	Positive Cost Variance in E&NS Regulatory Safety Management Account
TN-24590-06-03410	Assess the Impact of Adding DOE/RW-0333P, QARD Rev 20
TN-24590-06-03411	Vendor REA for Revised Melter Material Quantities
TN-24590-06-03412	ASX Sampler Tests Replan
TN-24590-06-03413	Distribs Scaffolding PP to WP
TN-24590-06-03414	PT & HLW Upgrade Temp. Power to Construction Power
TN-24590-06-03415	Temporary Construction Utilities - Propane System
TN-24590-06-03416	Additional Architectural Sections and Details for HLW and PTF
TN-24590-06-03417	LAW - LFH Shard Samplers
TN-24590-06-03418	LAW Tools and Equipment for Removal of Silica Containing Coatings
TN-24590-06-03419	Implementation of ASME NQA-1 2000 and QARD 18 for Duratek, Inc.
TN-24590-06-03422	BOF 90 Day Window PP to WP
TN-24590-06-03425	C&T CY08 PP Replan
TN-24590-06-03426	BOF/LAB - Piping/Hanger Rework
TN-24590-06-03427	LAW - Melter Rail Grout
TN-24590-06-03428	PTF, PP to WP, Clarification of Electrical work.
TN-24590-06-03429	LAW Stair Nosing
TN-24590-06-03431	Pretreatment PP to WP Conversion
TN-24590-06-03432	Pretreatment Selected Wall & Slab Consolidation & PP to WP
TN-24590-06-03433	BOF ITS Switchgear Craft Labor Giveback
TN-24590-06-03435	ASX Design Completion, Trouble Shooting, and Fabrication
TN-24590-06-03437	Knowledge Relay LLC Support for Migration of P3-to-P6
TN-24590-06-03439	Additional LAW Melter bubblers
TN-24590-06-03443	Material Services & Procurement Engineering Startup
TN-24590-06-03444	BOF WTB Pipe/Electrical/Civil Design Evolution/Rework
TN-24590-06-03446	BOF CCP Electrical Conduit Installation Supports Redesign/Rework
TN-24590-06-03447	PSI ENG Spec Change for Panel Indicator Lighting Colors and Supplier Document Submittal Requirements
TN-24590-06-03450	Re-Bid of API-610 Seal-less pumps due to requirements changes
TN-24590-06-03451	Correction of Time Phasing for HLW Equipment BCWS incorrectly statused as Complete
TN-24590-06-03453	PTF - Definitization of Drain Piping Work Packages
TN-24590-06-03455	LAW North Annex Inc Fireproof Quantity & Change Fireproof Material Type/Finish
TN-24590-06-03456	PW Vactor (VAC) Hydro Excavator Trucks
TN-24590-06-03457	PW - Installation of Repeater Antennas
TN-24590-06-03459	PW - T-52 Building - Add air intake dampers and seal louver/duct interfaces
TN-24590-06-03461	Elimination of the WBS 1.08 Plant Wide
TN-24590-06-03462	Conversion of PP to WP and Addition of 5 Enclosures for LAB
TN-24590-06-03463	Material Services & Procurement Engineering Team Implementation
TN-24590-06-03464	Subcontracts, Chicago Bridge & Iron Overhead Adjustment from 1.08 Account.
TN-24590-06-03465	Mentoring EPCON Supplier Quality
TN-24590-06-03467	Utility Service Schedule Updates
TN-24590-06-03468	BOF - T-52 Construction Warehouse Fire Detection System Upgrade
TN-24590-06-03470	Response to CRPTs: Pressure Safety Valves (PSV)
TN-24590-06-03471	Ultrafilter Drain Testing (Favorable)
TN-24590-06-03472	CGD Impacts on Procurement of PTF Remote Clamp Connectors

Trend No.	Trend Description
TN-24590-06-03473	Additional E&NS Resources for Fire Safety Support
TN-24590-06-03475	PW Preventative Maintenance Material for Permanent Plant Equipment FY08/FY09
TN-24590-06-03476	PTF Leak Detection Boxes
TN-24590-06-03480	LAB, Planning Package to Work Package
TN-24590-06-03482	MH Engineering Tasks To Support Other Disciplines And Management
TN-24590-06-03483	Modifications to PTF HVAC Design for Mitigation of Loss of Cooling & Loss of Heating Accidents
TN-24590-06-03484	Vessel Code Evaluation Subcontract
TN-24590-06-03485	M&PE Equipment Group Engineering Budget
TN-24590-06-03486	Transfer PP CSA Hrs for Design of Jumper Steel Grouted Pads/Embeds to WPs in PTF Hot Cell
TN-24590-06-03489	HVAC Alternate Fire Barrier Analysis
TN-24590-06-03490	Transfer of Vessel Analysis Scope to WTP Engineering
TN-24590-06-03492	M12 PDL-W Modification Overrun
TN-24590-06-03494	ENS Training Forecast FY08 through FY16
TN-24590-06-03495	HLW - Unit Rate revision for pipe and electrical sleeves
TN-24590-06-03496	PT - Removal & Reinstallation of Embedded Conduit, +56' el
TN-24590-06-03497	NOx Gas, Rearrangement of instruments due to potential exposure to NOx gas
TN-24590-06-03499	PT PP to WP Conversion and Internal Replanning thru FY09
TN-24590-06-03500	C&I and Electrical Equipment List for Facilities
TN-24590-06-03501	Engineer, Procure & Install Guardrails on Pre-Engineered Metal Buildings (ENG 1069)
TN-24590-06-03502	EFRT Issue M3 Completion
TN-24590-06-03505	LAW, Planning Package to Work Package, Replan
TN-24590-06-03506	LAW, Planning Package to Work Package, Replan
TN-24590-06-03508	HLW Drum Transfer Rails
TN-24590-06-03509	BOF FSW Battery Rack Modifications
TN-24590-06-03512	Compensation For QL-POA-MEEM-00001 REA Vendor Cost
TN-24590-06-03514	LAW - Melter Winch, Pulley Systems
TN-24590-06-03516	HLW - Completed Scope Summary (Favorable)
TN-24590-06-03517	HLW, PP to WP, FY08 & FY10
TN-24590-06-03518	PTF Building 12 Re-Design
TN-24590-06-03520	HLW - P3 to COBRA Alignment
TN-24590-06-03521	LAW - COBRA to P3 Alignment (Favorable)
TN-24590-06-03524	Convert Planning Package to Work Package for 24590-CM-MRE-MVA0-00003
TN-24590-06-03528	ISM Changes for HOP Preheaters
TN-24590-06-03529	Material Corrosion Evaluation
TN-24590-06-03531	Downtrend for Late Adjustments related to EFRT & Misc Ops in 1.08MT Plant Material
TN-24590-06-03535	Steam Conditioning Skid Scope Reduction
TN-24590-06-03539	Support for Revisions to Unique, One-of-a-Kind MH Equip
TN-24590-06-03540	Seismic Monitoring System
TN-24590-06-03544	SRNL Project Management Extension
TN-24590-06-03545	LAW PP to WP Conversion, Bulges and Pumps
TN-24590-06-03548	Implement ILAW/IHLW Glass Formulation Algorithms in Plant Control and Waste Form Compliance Software
TN-24590-06-03553	BOF-FSW, Pump House Foundation to Increase scope for DH craft
TN-24590-06-03556	False Claims Act Suit (Rille Litigation)
TN-24590-06-03557	Construction Support for Black Cell Piping Pilot Program
TN-24590-06-03558	Implementation and Execution of Revised Architectural AHJ Process
TN-24590-06-03560	Upgrade Lenel Security Software
TN-24590-06-03561	ACECO Crane Refurbishment
TN-24590-06-03565	Remote Fastener Qualification for FEP & TLP Systems
TN-24590-06-03568	LAB Jib Crane support; Hot Cell Maint. Room
TN-24590-06-03569	Engineering Support for Construction Subcontracts and Schedule Alignment
TN-24590-06-03570	LAW - Add HVAC Fire Dampers on Fire Rated Walls
TN-24590-06-03573	Omitted Equip. Mounting Interfaces - Transition Frames/Equip. Pads
TN-24590-06-03577	PTF Additional activates to complete 4th Lift Walls
TN-24590-06-03578	Pipe Deemed Deleted Reusable Material (DRM) for All Facilities
TN-24590-06-03579	Piping Joggles/Process Improvements
TN-24590-06-03580	BOF Additional Fire Alarm Panels FSW
TN-24590-06-03583	M12 - Pretreatment Engineering Platform Transportation Costs
TN-24590-06-03584	Vendor Rebid for RLD-VSL-00002 Fabrication
TN-24590-06-03585	Favorable Trend for P5 (IX Process Development)
TN-24590-06-03586	Fire Protection Resident Engineer
TN-24590-06-03587	PTF & HLW Bogie Shield Doors Seismic Analysis Qualification
TN-24590-06-03588	Material Handling Facility Furniture/Fiber Installation

Trend No.	Trend Description
TN-24590-06-03591	HLW Formwork Shoring 0' through 37'
TN-24590-06-03593	LAW - Compound Tolerances Civil/Structural/Mechanical
TN-24590-06-03594	BOF - Vac Truck Trend
TN-24590-06-03595	LAW - Penthouse Siding Support Steel
TN-24590-06-03596	LAB PP to WP and Internal Replan
TN-24590-06-03598	Plant Design Unit Rates for Modeling and Isometric Unit Rates
TN-24590-06-03600	DOE O 430.2B Transportation/Fleet Maintenance (Assessment)
TN-24590-06-03601	Thermal Catalytic Oxidizer Procurement Strategy Update
TN-24590-06-03603	HLW Task Order Restart
TN-24590-06-03604	Additional scope for resolution of 24590-WTP-CRPT-QA-07-170
TN-24590-06-03606	HLW N690 Weld Inspections
TN-24590-06-03607	PW Electrical Q Stainless Steel Fasteners to Replace CM Stainless Steel Fasteners
TN-24590-06-03614	Changes to PT and HLW Steam Systems Quality and Seismic Categories
TN-24590-06-03615	LAB - Stack Steel Restraint Lugs
TN-24590-06-03617	PW Implementation Of 10CFR851 Budget into Correct Control Accounts
TN-24590-06-03619	Deletion of PJV Bulge and Vessel
TN-24590-06-03620	HLW Establishing a Unit Rate for HLW Joggle Installation
TN-24590-06-03621	Transfer Remaining Budget for Load Path from PWM to CS&A
TN-24590-06-03622	Engr Recovery Plan 2008 Office Moves
TN-24590-06-03624	LAW - Concrete planning package to work package replan
TN-24590-06-03627	LAW - LMH-RAIL-00001,2,3,4
TN-24590-06-03628	Development of Alternatives for Permanent Melter Assembly Building
TN-24590-06-03629	Correction of Coding Errors on PO CM-POA-MAH0-00001 and QL-POA-MACS-00002
TN-24590-06-03631	PTF Installation of Cell Top Steel & Platforms PP to WP Conversion
TN-24590-06-03632	PTF Rod Room Attendant
TN-24590-06-03634	Startup/Commissioning Milestone & Logic Cleanup
TN-24590-06-03636	LAW Melter End Trucks Petersen REA
TN-24590-06-03637	LAW Inert Fill Pipe and Support Structure
TN-24590-06-03638	Establishment of Management Budget for New Plant Equipment Group
TN-24590-06-03639	Deletion of Two (2) Redundant P3 LAW Piping Activities
TN-24590-06-03641	ACGIH Physical Agent TLV Implementation
TN-24590-06-03642	HLW Field Modification of Fabricated Steel to Accommodate Installation of Multi Discipline Rack Steel
TN-24590-06-03643	Installation of Pipe for Vessel 904
TN-24590-06-03644	LAW - SHIM PLATES FOR BULGES ON +28 ELEVATION
TN-24590-06-03646	Independent Verification of Melter Calculations (CRPT-QA-07-325)
TN-24590-06-03647	EFRT M-1 Test Acceptance PNNL Descope
TN-24590-06-03649	LAW - Combined Electrical Trend
TN-24590-06-03650	Knowledge Relay P3-P6 Stage 4
TN-24590-06-03654	Transfer Constr FNM Project S/C Mgmt Scope/Budget from Const to Acq Svcs
TN-24590-06-03655	CHW Circuit Balancing Valves for LAW and PT
TN-24590-06-03657	Baseline T560 Migration to P6
TN-24590-06-03658	HLW SBS and HEME Modifications
TN-24590-06-03659	Cathodic Electrical Equipment Estimate Error
TN-24590-06-03661	Construction Distributable Shuttle Van for Site to Town Transportation
TN-24590-06-03662	Transfer of Craft Training Hours from PT/HLW Remobilization to Construction Distributables
TN-24590-06-03663	BOF Preventative Maintenance
TN-24590-06-03664	PW Additional M&TE Budget for Construction Distributables
TN-24590-06-03670	Increase in BOF Grounding Cable Quantities
TN-24590-06-03672	Emergency Diesel Generator Design
TN-24590-06-03673	PT & LAW - Steel Price Increase for American Fabricator Pressure Vessels
TN-24590-06-03676	PTF/HLW - Add HVAC Fire Dampers on Fire Rated Walls
TN-24590-06-03678	Re-align Planning Package BCWS With The Baseline Schedule
TN-24590-06-03681	LAW Carbon Bed Adsorber EQ & ISM Driven Changes
TN-24590-06-03682	PW Replacement of Flooring in Site Restrooms
TN-24590-06-03683	PTF - Design Changes to Completed Work for Walls 4-30 & 4-31
TN-24590-06-03684	LAB Stack Grating Rework
TN-24590-06-03686	System LFH Decontamination Robotic Arm Modifications
TN-24590-06-03689	LAW-R&T PP to WP Commissioning Simulant
TN-24590-06-03690	R&T Duratek (ES) Closeout
TN-24590-06-03691	LAW - Painting & Wall Covering Scope Transfer Between Control Accounts
TN-24590-06-03692	HLW - Correcting Omission in MAY 06 EAC of 4 sets of -21' Rails
TN-24590-06-03693	PTF: PIH-CRN-00004 Crane Rail Install/Align
TN-24590-06-03695	PW - PTF Temporary Work Platforms - Labor

Trend No.	Trend Description
TN-24590-06-03696	BOF PSA in DOE Line Rework Excavation/Backfill
TN-24590-06-03697	PTF 10-MHAN-00004 Decontamination Booth Assembly
TN-24590-06-03700	PNNL LAW Statistical Support PP to WP Conversion
TN-24590-06-03703	Corrosion Testing for UFP Vessels
TN-24590-06-03704	Craft Support for First Drop of Material at Construction Site
TN-24590-06-03709	Add Paint Booth and Abrasive Blast Booth in Building T-47
TN-24590-06-03710	Additional Maintenance Platforms for Crane LEH-CRN-00003
TN-24590-06-03714	BOF Electrical/Instrumentation Redesign
TN-24590-06-03715	Change of Procurement Strategy of LAW TCO Components
TN-24590-06-03716	Impact of assessment: DOE M 470.4-4, Information Security, Change 1
TN-24590-06-03717	PTF Concrete Chipping to Support Installation of Secondary Containments
TN-24590-06-03718	PTF Installation of RWH-DOOR-000007 and DOOR-00023
TN-24590-06-03722	BOF CCP/NLD 2
TN-24590-06-03725	LAW - Additional Hours for Installation of Large Vessel Pumps
TN-24590-06-03726	Combo Shop Modifications to Support Black Cell Pipe Repairs
TN-24590-06-03727	BOF DOE Pipe Work Pause/Cold Weather Work
TN-24590-06-03728	LAW Hoist Upgrades Concurrent to Refurbishment
TN-24590-06-03729	Acquisition Services Negotiated Savings - PIP No. P012
TN-24590-06-03732	CM HVAC S/C Schedule Impacts of Project Re-Sequence Plan & Execution Strategy
TN-24590-06-03733	LAB Stack Stair Handrail Modification
TN-24590-06-03735	M3 Phase I Cohesive Simulant Desclope
TN-24590-06-03738	Tepid Water Heaters for BOF, LAW, LAB, and HLW
TN-24590-06-03739	HFH Crane Modifications, Spares, and Recovery System
TN-24590-06-03742	Convert LAW Engineering Subcontract PP to WP
TN-24590-06-03743	LAW - Shard Table Support; Embed Interference; Painting of Black Iron
TN-24590-06-03750	HLW Melter Seismic Analysis Scope Increase
TN-24590-06-03751	FEA Calculation for 6 LAW and 2 PTF Bulges
TN-24590-06-03755	Equipment Anti-Sweat and Personnel Protection Insulation
TN-24590-06-03757	LAB - Cable Tray Supports
TN-24590-06-03762	Construction Distribs Budget Increase in Support of Approved BCP's from Oct 07 – Aug 08
TN-24590-06-03765	Additional Budge for HOP Manual Valves
TN-24590-06-03766	T43 & 47, Area 41 & Parking Lot Fencing
TN-24590-06-03768	Engineering Support of DOE Audit Team
TN-24590-06-03769	BOF - Disassembly / Reassembly of the CCP Motor Starter Cabinets
TN-24590-06-03771	LAW - Primavera BCWS and BCWP Electrical Commodity Alignment to TEAMWorks, Setroute, and QURR
TN-24590-06-03774	LAW Additional Hrs for Installation of LFM-PMP 00007, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
TN-24590-06-03775	Melter Feed Studies - Agitator Design Change
TN-24590-06-03776	BOF - Switchgear Drip Shield Install (Bldg. 87 & 91)
TN-24590-06-03780	Schedule Change to Planning Package for Jumper Materials
TN-24590-06-03782	Anhydrous Ammonia Storage Facility
TN-24590-06-03783	LAW Electrical Unit Rate Forecast
TN-24590-06-03785	LAW - MECHANICAL REWORK FORECAST
TN-24590-06-03786	PT - IX / Alt Resin III PP Partial Return to MR
TN-24590-06-03788	Reallocate HVAC Procurement from Existing Purchase Order (PO) to new PO
TN-24590-06-03793	PE&FM System Leads Tasks
TN-24590-06-03794	LAB Pipe Unit Rates
TN-24590-06-03800	PTF Girt Clip Modifications
TN-24590-06-03801	PTF Chipping Concrete Top of Existing Wall
TN-24590-06-03804	Recovery Plan Optimization - Electrical (Concession)
TN-24590-06-03805	Recovery Plan Optimization - Mechanical Systems (Concession)
TN-24590-06-03806	Recovery Plan Optimization - C&I Estimate Reductions (Concession)
TN-24590-06-03807	Recovery Plan Optimization - Plant Design (Concession)
TN-24590-06-03808	Recovery Plan Optimization - Civil/Structural/Architectural (Concession)
TN-24590-06-03809	Recovery Plan Optimization - Mechanical Handling (Concession)
TN-24590-06-03810	Recovery Plan Optimization - Engineering Management (Concession)
TN-24590-06-03811	Recovery Plan Optimization - PEQ (Concession)
TN-24590-06-03851	Changes to PT and HLW Steam Systems Quality and Seismic Categories
TN-24590-06-03756	Change to PT Rack Procurement Strategy and Risk Realization
TN-24590-06-03798	PW Replacement of Spiral Wound and Flat Sheet Graphite Gaskets
TN-24590-06-03815	HLW - Safety Wire Mesh for Elevated Slabs
TN-24590-06-03816	HLW Extra Concrete Floor Finishing for Liner Plates
TN-24590-06-03817	HLW Establishing an Embeds & Steel Field Fabrication Account

Trend No.	Trend Description
TN-24590-06-03818	HLW - Piping/Hanger Rework

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT J
 ADVANCE UNDERSTANDING ON COSTS (143)**

Subattachment B

List of Exclusions from Equitable Adjustment Settlement Established in Modification No. 143

Trend No.	Trend Description	Definitized
TN-24590-06-02279	Expansion of DWP Requirements (Permit Modifications)	193
TN-24590-06-02381	DOE Order 205-1A Cyber Security Management Program	217
TN-24590-06-02728	M-12 Engineering Scale Pretreatment System (Design, Procure, Install)	214
TN-24590-06-02778	Reduction of Core Bores for HPAV Active Controls	
	Deleted (158)	
TN-24590-06-03109	Plant Material Bulk Steel EAC Increase	
TN-24590-06-03123	EPD Funding to Support EFRT M12 PT Engineering Platform Completion	214
TN-24590-06-03146	EPD Funding to Support EFRT M12 PT Engineering Platform	214
TN-24590-06-03204	EPD Funding to Support EFRT M12 PTF Engineering Platform Completion, Part 3	214
TN-24590-06-03242	PEP Install, Plan Site Integrated and Shakedown Testing, & Oversight	214
TN-24590-06-03282	Additional HPAV Active Controls	
TN-24590-06-03317	BNI and DOE HPAV Test Program	
	Deleted (158)	
TN-24590-06-03394	ABAR to Implement DOE S 1066 Chpt 14 for Nuclear Filter Plenum Fire Protection	
TN-24590-06-03405	PEP Site Integrated Testing and Shakedown	214
	Deleted (164)	
TN-24590-06-03503	PEP Phase 1 Testing, Trend 1	214
TN-24590-06-03527	Engineering Study and Support Scope for Standard 1066	
TN-24590-06-03533	Quantity and Material Escalation for Pipe Supports Impacting Control Account 1.08 MT	
TN-24590-06-03537	Increase Fuel Surcharge	
	Deleted (158)	
TN-24590-06-03708	Implementation of Features Equivalent to DOE-STD-1066	
TN-24590-06-03752	Safety Classification Process for the Waste Treatment and Immobilization Plant	
	Deleted (164)	
TN-24590-06-03754	Increased Cost for HPAV Test Program	
TN-24590-06-03781	Evaluation and Interim Report on Updated Radioactive Source Term	
TN-24590-06-03820	Re-Evaluation Of HPAV Design Strain Criteria	
TN-24590-06-03823	Pretreatment Engineering Platform Shakedown Testing Extension	214
TN-24590-06-03827	Additional Support for Material at Risk Design Basis	
TN-24590-06-03859	Additional Impacts Associated with 10 CFR 851	233 & 238
	Additional Impacts Associated with 10 CFR 851 – Silica Sand Impact, REA 2010-012 (Note: This is a portion of TN-24590-06-03859)	233
	Additional Impacts Associated with 10 CFR 851 – Subcontract Implementation Costs, REA 2010-003 (Note: This is a portion of TN-24590-06-03859)	238
TN-24590-06-03860	Additional Escalation Impacts Beyond May 2006 EAC Rates Through Jan 2009	
	Escalation of Craft Labor (FY2006-FY2009); TN-24590-06-04947; REA 2010-004 (NOTE: This is a portion of TN-24590-06-03860)	187
TN-24590-06-03861	Received Vendor & Subcontractor Claims Due to DOE Impacts	

Trend No.	Trend Description	Definitized
	Vendor & Subcontractor Claims Due to DOE Impacts – Oregon Iron Works, TN-24590-06-04020 (Note: This is a portion of TN-24590-06-03861.)	167
	Vendor & Subcontract Claims Due to DOE Impacts – FD Thomas, Inc. REA will not submitted. (Note this is a portion of TN-24590-06-03861)	230
	Vendor & Subcontract Claims Due to DOE Impacts – Cobra Roofing Services, Inc. REA will not submitted. (Note this is a portion of TN-24590-06-03861)	230
	Vendor & Subcontract Claims Due to DOE Impacts -Diversified Metal Products (Note this is a portion of TN-24590-06-03861)	290
	Vendor & Subcontract Claims Due to DOE Impacts – Quality Inspection Services International, Inc. (QISI) REA will not submitted. (Note this is a portion of TN-24590-06-03861)	230
	Vendor & Subcontract Claims Due to DOE Impacts – Central Pre-Mix Concrete Company, Inc. REA 2010-020 will not submitted. (Note this is a portion of TN-24590-06-03861)	230
	Vendor & Subcontract Claims Due to DOE Impacts – Apollo Sheet Metal, Inc. REA 2010-019 will not submitted. (Note this is a portion of TN-24590-06-03861)	230
	Vendor & Subcontract Claims Due to DOE Impacts – Ellis & Watts, Inc. REA 2010-018 will not submitted. (Note this is a portion of TN-24590-06-03861)	230

Modification No.	Modification Description	Definitized
M090	Implement DOE O 205.1A, Department of Energy Cyber Security Management	217
M101	Maximum Available Control Technology and Destructive & Removal Efficiency Testing	
M122	Process Changes for Revised Dangerous Waste Permit	193
M136 Item 3c	Deleted (164)	
M141 Item c	Implement New Safety Classification Process	

**SECTION J – LIST OF ATTACHMENTS
ATTACHMENT J
ADVANCE UNDERSTANDING ON COSTS (384)**

Sub-Attachment C

List of Exclusions from Release and Waiver of Claims (Modification No. 384)

1. The revised cost, scope, schedule, and all terms and conditions as set forth in this modification are intended to reflect a complete and final resolution of all events, issues, actions and/or inactions of either party that gave rise to the increase in cost and extension of the schedule for the work herein identified as CLINs 1 and 2. For purposes of the waiver and release of claims for Contract Modification 384, the waiver of issues which “were known or should have been known” does not include pending issues for which an authorized representative of the government has not provided a final determination or formal direction or interpretation of the contract. The intent of this exclusion is to avoid foreclosure of the contractor’s right to assert a basis for relief or otherwise dispute actions of the Government as pertains to matters presently being contemplated, but not formally acted upon, by the Government. It is not the intent of this exclusion to provide entitlement to relief, or otherwise entitle the contractor to bring any action that results in a change to the cost, scope, schedule, or any other term or condition of the contract for events occurring prior to the date of this modification.
2. Commercial Grade Dedication (CGD). The settlement for Modification (384) includes implementation of changes in the form of CGD documentation as described in BNI Corrective Action Plan (CAP) Actions 4-9 and actions to implement the new documentation expectations on all LBL and DFLAW equipment, instruments and bulk materials that have not yet been received and installed, including any vendor impacts due to delays and changes in requirements.

The included BNI CAP Actions 4–9 are set forth in Sub-Attachment C, Table 1 (Included CAP Actions 4-9) (6 pages)

Cost and schedule impacts associated with CGD requirements or expectations extending beyond CAP Actions 4–9 are excluded. Specifically excluded are cost and schedule impacts arising from:

- the 19 “parking lot items”; are set forth in Sub-Attachment C, Table 2 (19 CGD Parking Lot Items) (3 pages)
- any revision to the final root cause analysis (24590-WTP-RCA-MGT-15-0338, Rev. 2);
- benchmark plans; (Definition- Benchmark CGD plans” to be developed jointly by BNI and ORP (as an outcome of the CGD Working Group chartered in October 2015) as general examples for future CGD plans, to demonstrate implementation of current CGD requirements in addition to ORP directed changes relative to the 19 parking lot items.)
- the CGD extent of condition review and any related impacts to received or installed equipment, instruments, and materials.

(Record Note: DOE included a deliverable to implement the CGD extent of condition review and impacts in Section C, *Statement of Work, Table C.5-1.1. Deliverables, 7.11*) (397)

3. DOE-STD-3009. Implementation of DOE-STD-3009-2014 is excluded from the settlement of Modification No. 384.
4. LAW Confinement Ventilation System (“C5V”). Primary confinement for a melter off-gas release event is provided by the safety-significant melter off-gas system. Secondary confinement of the off-gas is provided by the C5V system, which has been designed, designated and constructed as defense in depth. The settlement for Modification (384) specifically excludes potential cost and schedule impacts for C5V design changes, hardware changes, testing, analysis or other scope or schedule impacts resulting from changing the designation of the LAW C5V secondary confinement

system from defense in depth to safety significant pursuant to the approach described in Section C, Standard 3, paragraph (c), item (25).

5. DOE Order 414.1D: The settlement for Modification (384) includes development of a plan for implementation of DOE Order 414.1D. Specifically excluded is implementation of DOE Order 414.1D.
6. Standard 1195: The settlement for Modification (384) includes tailored implementation of International Electrotechnical Commission (IEC) standard 61511-1 concurrent with DOE-STD-1195-2011 as a means of achieving Safety Integrity Level – 2 (SIL-2) for low demand simple Safety Instrumented Functions (SIFs) as described in Section J (DOE order list). Specifically excluded are potential cost and schedule impacts associated with achieving SIL-2 through redundancy.
7. Installed Underground Pipe: The settlement for Modification (384) includes costs for repair of existing damaged or defective installed LBL or DFLAW underground piping identified during the contract performance period, and development of an Underground Pipe Integrity Program, which includes an evaluation of existing underground inspection technologies, an inspection plan and risk ranking of inspection locations. Specifically excluded is implementation of the Underground Pipe Integrity Program, including any condition assessment or verification of existing piping, or any maintenance, repairs or replacement of installed underground piping, except to the extent that the piping is defective or damaged by BNI.
8. Design & Operability Impacts: Cost and schedule impacts associated with LAW design basis issues in Category 4 (issues requiring contract change) and category 5 (issues requiring further review for validity) cited in the *Low-Activity Waste Facility Design and Operability Review Report* dated September 4, 2015 (and detailed in CCN 276214) are excluded from the settlement of Modification (384).
9. DOE Letter of Technical Direction: Excluded from the settlement of Modification (384) are potential cost and delay impacts associated with design changes, hardware changes, testing, analysis or other scope or schedule impacts resulting as a result of the nuclear safety direction in the DOE-ORP letter of technical direction CCN 281177, including but not limited to changes related to systems including ammonia, CO2 decon, and fire barriers, or accident scenarios including caustic spray leaks or NOx; but not including the C5V system.

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT J
 ADVANCE UNDERSTANDING ON COSTS (384)**

Subattachment C, Table 1

Corrective actions to correct the condition and cause to prevent further findings.

Table 1 (Included CAP Actions 4-9) (384)

BNI Action	Evidence of Completion
24590-WTP-GCA-MGT-15-00338-A	
Immediate/Compensatory Actions	
<p>4. Establish a “Q Equipment Review Board” to Review Complex CGD Equipment Procurements:</p> <p>Establish a “Q Equipment Review Board” to Review Complex CGD Equipment Procurements</p> <p>Establish a WTP “Q Equipment Review Board (QERB)” responsible for providing a review of process interfaces/handoffs for complex CGD equipment procurements. Reviews will be conducted to determine if requisite nuclear safety, design, equipment qualification (EQ), commercial grade dedication (CGD), and quality requirements have been correctly implemented through the various process interfaces, are being flowed down and effectively implemented in the procurement process, resulting in reasonable assurance the safety function will be met.</p> <p>Develop briefing/presentation material to discuss the conditions observed in the DOE Audit Report and the RCA with the QERB board members. Include lessons learned progressively as QERB’s reviews are completed. Include this in a pre-job brief (effective implementation of this portion 6/15/2016).</p> <p>Document in QERB charter the required skill mix for the QERB board membership.</p> <p>Document actions (e.g., meeting minutes, action tracking matrix) resulting from QERB meetings and identify any resulting issues in Supplier Corrective Action Reports (SCAR), NCRs, and/or CRs, Action Tracking System items (ATS) as appropriate.</p> <p>Implementation of QERB action to be effective as of 10/05/2015.</p> <p>This immediate/compensatory action remains in effect through implementation of CAs 11 – 16 of this CR Retention as a corrective action to prevent recurrence (CAPR) will be evaluated when CAs 10-15 have been implemented.</p>	<p>The following objective evidence can be attached (electronically) to CA-4 in CAMP and / or identified by document number(s) identifiable and retrievable in InfoWorks:</p> <ul style="list-style-type: none"> • Approved WTP “Q Equipment Review Board (QERB)” charter. • Documented actions resulting from QERB meetings (e.g., meeting minutes, action tracking matrix). • Initiated, in-process, or completed SCARs, NCRs, and / or CRs/ATs resulting from QERB reviews.
<p>5. Develop and Issue a VCGD Submittal Review Guide</p> <p>Develop and issue a WTP Guide that includes a review checklist for WTP Procurement Engineering (PROE) review of CGD related G321-E document category 33.0-33.7 required submittal documents.</p> <p>Develop presentation materials for the new guide and conduct a briefing with WTP Procurement Engineering personnel. Identify members of the target audience required to receive the briefing and document attendance on signed attendance sheets.</p>	<p>The following objective evidence can be attached (electronically) to CA-5 in CAMP and / or identified by document number(s) identifiable and retrievable in InfoWorks:</p> <ul style="list-style-type: none"> • Approved VCGD Submittal Review Guide. • Update PROE Learning Management System (LMS)

Table 1 (Included CAP Actions 4-9) (384)

<p align="center">BNI Action</p> <p align="center">24590-WTP-GCA-MGT-15-00338-A</p>	<p align="center">Evidence of Completion</p>
<p>Implementation of this action to be effective as of 10/05/2015.</p> <p>Note: This immediate/compensatory / corrective action to prevent recurrence (CAPR) was created to address, in part, the following root causes resulting from 24590-WTP-RCA-MGT-15-0338:</p> <ul style="list-style-type: none"> • RC-1 - Procurement Engineering did not effectively manage some aspects of process execution <ul style="list-style-type: none"> – This action will address personnel turnover and experience by providing guidance and checklists to drive consistency • RC-3 - Complex process flow coupled with lack of seamless integration of knowledge between functions and unclear R2A2s. 	<p>profiles with a “Read and Review” (RR) for guide 24590-WTP-GPG-PROE-0006.</p> <ul style="list-style-type: none"> • Presentation materials developed to conduct briefing(s) on the new guide. • Signed attendance sheets for target audience required to receive the briefing, including any make-up sessions.
<p>6. Implement Checking of Bechtel-Generated CGD Plans:</p> <p>Revise 24590-WTP-3DP-G06T-00904, <i>Evaluation of Commercial Grade Items and Services</i>, to establish a formal process for checking CGD plans prior to approval and issuance. Develop a CGD Plan “checking” checklist based on the implementing procedure and associated CGD Plan Form. The “checking” checklist should facilitate a consistent approach for checking that will result in comprehensive CGD Plans that can be understood and implemented by equally qualified personnel without recourse to the originator. “Checking” checklist elements should include, but not be limited to, review of:</p> <ul style="list-style-type: none"> • Design criteria applicable to the Q function(s) • Critical characteristics associated with Q function(s) and basis for selection of each • Acceptance methods • Acceptance criteria with reference to applicable codes, standards, and design documents • Sampling plans and basis for selection of each <p>Develop presentation materials for the revised procedure (and new checklist) and conduct a briefing with WTP Procurement Engineering personnel. Identify members of the target audience required to receive the briefing and document attendance on signed attendance sheets.</p> <p>Implementation of this action to be effective as of 10/05/2015.</p> <p>Note: This immediate/compensatory/corrective action to prevent recurrence (CAPR) was created to address, in part, the following root causes resulting from 24590-WTP-RCA-MGT-15-0338:</p> <ul style="list-style-type: none"> • RC-1 - Procurement Engineering did not effectively manage some aspects of process execution • RC-2 - CGD process is handled differently than engineering processes. 	<p>The following objective evidence can be attached (electronically) to CA-6 in CAMP and / or identified by document number(s) identifiable and retrievable in InfoWorks:</p> <ul style="list-style-type: none"> • Approved revision to 24590-WTP-3DP-G06T-00904, <i>Evaluation of Commercial Grade Items and Services</i>, that includes a new checklist for checking of CGD Plans prior to approval and issuance. • Presentation materials developed to conduct briefing(s) on the revised procedure and new checklist. • Signed attendance sheets for target audience required to receive the briefing, including any make-up sessions. • Documentation of completed Read and Review (RR) of 24590-WTP-3DP-G06T-00904, <i>Evaluation of Commercial Grade Items and Services</i> for PROE.
<p>7. Establish Mentoring:</p>	<p>The following objective evidence can be attached (electronically) to CA-7 in</p>

Table 1 (Included CAP Actions 4-9) (384)

<p align="center">BNI Action</p> <p align="center">24590-WTP-GCA-MGT-15-00338-A</p>	<p align="center">Evidence of Completion</p>
<p>Conduct mentoring sessions with Procurement Engineering personnel consistent with ISMS Core Function #5 – “<i>Feedback & Continuous Improvement.</i>” CGD related topics may include, but are not limited to:</p> <ul style="list-style-type: none"> • Implementation of immediate/compensatory measures resulting from 24590-WTP-GCA-MGT-15-00338-A, <i>Commercial Grade Dedication</i> • Feedback/opportunities for improvement resulting from document reviews of: <ul style="list-style-type: none"> – CGD plans – CGD release forms – Supplier submittals • Appropriate use of various CGD document review checklists • CGD Sampling Plans • Feedback on results of Quality Engineering (QE) reviews • Feedback on results of Q Equipment Review Board (QERB) meetings • Feedback on results of client reviews (e.g. ORP CGD audit U-14-QAD-RPPWTP-003) • Feedback on results of other internal / external reviews (e.g. RCA Report 24590-WTP-RCA-MGT-15-0338) <p>Mentoring sessions may be conducted by CGD SMEs, Managers, Supervisors, or other personnel knowledgeable of the topic being discussed.</p> <p>Implementation of this action to be effective as of 10/05/2015.</p> <p>Develop presentation materials and conduct mentoring of WTP Procurement Engineering personnel. Identify members of the target audience required to receive the mentoring and document attendance on signed attendance sheets.</p> <p>This immediate action must remain in effect through implementation of CAs 11 – 16 of this CR.</p> <p>Note: This immediate action was created to address, in part, the following root cause and contributing causes resulting from 24590-WTP-RCA-MGT-15-0338, <i>Commercial Grade Dedication</i>:</p> <ul style="list-style-type: none"> • RC-1 - Procurement Engineering did not effectively manage some aspects of process execution • CC-1 – Corrective actions from past CGD PIERs were partially effective. 	<p>CAMP and / or identified by document number(s) identifiable and retrievable in InfoWorks:</p> <ul style="list-style-type: none"> • Presentation materials developed to conduct mentoring. • Signed attendance sheets for target audience required to receive the mentoring, including any make-up sessions. • DACGDS01 LMS Qualification for SME’s inclusive of those assigned to it.
<p>8. Incorporate Quality Engineering (QE) review of BCGD plans and VCGD submittals into 24590-WTP-GPG-ENG-0176, Quality Engineering Work Process:</p>	<p>The following objective evidence can be attached (electronically) to CA-8 in CAMP and / or identified by document number(s) identifiable and retrievable in InfoWorks:</p>

Table 1 (Included CAP Actions 4-9) (384)

<p align="center">BNI Action</p> <p align="center">24590-WTP-GCA-MGT-15-00338-A</p>	<p align="center">Evidence of Completion</p>
<p>Revise 24590-WTP-GPG-ENG-0176, <i>Quality Engineering Work Process</i>, to incorporate review of Bechtel CGD (BCGD) Plans. Revision to include a new QE Review Checklist (form) to facilitate review of BCGD Plans prior to approval and issuance.</p> <p>Perform an initial QE review of 100% of BCGD Plans using the revised guide/checklist (Form 24590-ENG-F00182) and 100% review of VCGD documents submitted under G321-E, Category 33, <i>Commercial Grade Dedication Documentation</i>, using the existing <i>QE Review Checklist for Vendor Submittals</i> (Form 24590-ENG-F00162). The initial percentages of 100% may be adjusted at a later date in accordance with the guide, based on results of reviews performed.</p> <p>Develop presentation materials for the revised guide (and new checklist) and conduct a briefing with WTP Procurement Engineering personnel and Quality Engineering personnel. Identify members of the target audience required to receive the briefing and document attendance on signed attendance sheets.</p> <p>Implementation of QE review to be effective as of 10/05/2015.</p> <p>The “later date” referenced above will be upon completion of CAs 11 – 16 of this CR.</p> <p>Note: This immediate/compensatory/corrective action was created to address, in part, the following root causes resulting from 24590-WTP-RCA-MGT-15-0338:</p> <ul style="list-style-type: none"> • RC-1 - Procurement Engineering did not effectively manage some aspects of process execution • RC-2 - CGD process is handled differently than engineering processes. 	<ul style="list-style-type: none"> • Approved revision to 24590-WTP-GPG-ENG-0176, <i>Quality Engineering Work Process</i>, that includes a new QE Review Checklist (Form 24590-ENG-F00182) to facilitate review of BCGD Plans prior to approval and issuance. • Presentation materials developed to conduct briefing(s) on the revised guide and new checklist. • Signed attendance sheets for target audience required to receive the briefing, including any make-up sessions. • LMS training completion record for QE and Responsible Engineer (RE) for the revised 24590-WTP-GPG-ENG-0176, <i>Quality Engineering Work Process</i> guide and the 24590-WTP-3DP-G06T-00904, <i>Evaluation of Commercial Grade Items</i> PROE procedure, respectively.
<p>9. Develop and Issue a “Completed CGD Package” Process for both BCGD and VCGD:</p> <ul style="list-style-type: none"> • Issue new form(s) with instructions for Procurement Engineering to perform a review of BCGD/VCGD related documents required by G321-E & G321-V forms as well as Bechtel generated CGD documentation (e.g. CGD survey report, source verification reports, and Receiving Inspection & Test (RI&T) generated inspection results). • Revise affected procedures and instructions to establish a process for preparation and issuance of a completed CGD package. Include a release form(s) that facilitate identification of each activity required by the approved CGD plan (reference specific plan sections), and identification of objective evidence required to document and demonstrate successful completion of each required CGD activity. Procedure, form, and associated form instructions need to discuss identification of objective evidence required to support completion of required dedication activities. Objective evidence must be traceable and retrievable. • Define required documentation criteria for items where the CGD release form will not be required. (e.g., concrete and grout). 	<p>The following objective evidence can be attached (electronically) to CA-9 in CAMP and / or identified by document number(s) identifiable and retrievable in InfoWorks:</p> <ul style="list-style-type: none"> • New form(s) with instructions for Procurement Engineering to perform a preliminary review of CGD related submittals required by G321-E and G321-V forms and BCGD plans. • Approved revision to procedure 24590-WTP-3DP-G06T-00904, <i>Evaluation of Commercial Grade Items and Services</i>, that addresses documentation requirement where the CGD release form is not employed. • Presentation materials developed to conduct briefing(s) on the revised procedure.

Table 1 (Included CAP Actions 4-9) (384)

<p align="center">BNI Action</p> <p align="center">24590-WTP-GCA-MGT-15-00338-A</p>	<p align="center">Evidence of Completion</p>
<ul style="list-style-type: none"> • Develop presentation materials for the revised procedure and conduct a briefing with WTP Procurement Engineering personnel. Identify members of the target audience required to receive the briefing and document attendance on signed attendance sheets. <p>Implementation of this action to be effective as of 10/05/2015.</p> <p>This immediate/compensatory action remains in effect through implementation of CAs 11 – 16 of this CR Retention as a CAPR will be evaluated when CAs 11-16 have been implemented.</p> <p>Note: This immediate/compensatory was created to address, in part, the following root causes and observations resulting from 24590-WTP-RCA-MGT-15-0338 until long-term corrective actions are implemented:</p> <ul style="list-style-type: none"> • RC-1 - Procurement Engineering did not effectively manage some aspects of process execution • RC-2 - CGD process is handled differently than engineering processes • Obs-1: Document retrieval is difficult 	<ul style="list-style-type: none"> • Signed attendance sheets for target audience required to receive the briefing, including any make-up sessions.

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT J
 ADVANCE UNDERSTANDING ON COSTS (384)**

Subattachment C, Table 2

Table 2 (19 CGD Parking Lot Items) (384)

PL Item No	Description	Scope
1	What is the dedication package? How validated/accepted?	This alignment expectation requires that a CGD release form be populated demonstrating that all required CGD plan activities have been completed for BCGD and VCGD. This requires that the reviewer/ CGD release/report generator review CofC's, source verification reports, inspection and test reports, material test reports, factory acceptance test reports and any other document used to document objective evidence of critical characteristic verification. Each CGD plan required attribute and/or activity must be matched to the associated record or objective evidence to demonstrate completion. (Included in SOW, Standard 7(e)(3)(ii)(d) of MOD 415)
2	EQ & Seismic Considerations from Design addressed in CCFA & how documented	This alignment expectation requires that the basis for selection of the CC include how the CC may be related to EQ. (Included in SOW, Standard 7(e)(3)(ii)(d) of MOD 415)
3	Structure of Specification of CCFAs	This alignment expectation requires that the acceptance criteria be defined in a manner that is not interpretable whether that acceptance criteria is directly listed or referenced out to a code or standard. Additionally, engineering judgement required to substantiate that acceptance criteria must be documented in the CGD plan technical evaluation.
4	Define Complex Items / Design Process – differentiate between item complexity and procurement complexity (dedication at lower tier suppliers)	This alignment expectation requires additional guidance to be created for complex nuclear procurements, both BCGD and VCGD. Additional deliverables include a procurement strategy document and a supply chain map.
5	What is a source Verification Plan - vs Material Acceptance Plan (MAP) (level of detail Survey Plan model)	This alignment expectation requires the creation of a source verification checklist when performing source verification for CGD.
6	Item Part Number as a CCFA?	This alignment expectation requires that an item part number be verified. It will not be verified as part of CGD, rather the standard receipt inspection process.
7	How do we use Design Information in Technical Evaluations to support critical characteristics for acceptance (CCFA) selection?	This alignment expectation requires a technical evaluation with credible failure modes identified when the design is not available. When the design is available, a technical evaluation with credible failure modes is not required. (Included in SOW, Standard 7(e)(3)(ii)(d) of MOD 415)
8	Material Chemistry specifications – full chemistry vs. partial	This alignment expectation requires technical justification when selecting a subset of material chemical properties for acceptance. MET will be producing a report that identifies the acceptable chemical values for typical materials procured at WTP.

PL Item No	Description	Scope
9	Use of PMI vs. wet chemistry.	This alignment expectation requires that the use of equipment used to verify material chemistry (OES, XRF) to be defined in WTP design documents. (MET report) (Included in SOW, Standard 7(e)(3)(ii)(d) of MOD 415)
10	Refine definition of "Reasonable Assurance"	Documentation of the dedication activities must be complete enough for an independent, qualified reviewer to arrive at the same conclusion. Generated CGD packages shall provide reasonable assurance.
11	How do we implement industry guidance into the CGD Process?	This alignment expectation requires that a requirements basis report be produced to embody the outcome of the CGD Working Group.
12	Application of CGD Methods	This alignment expectation further defines the application of CGD acceptance methods, roles and responsibilities. This alignment expectation will evaluate the performance of Method 3 Source Verification by SQR. This alignment expectation will allow for the implementation of EPRI 5652 Rev. 1, Appendix F as an alternative means for nuclear procurement. (Included in SOW, Standard 7(e)(3)(ii)(d) of MOD 415)
13	Use of procurement specification to qualify commercial as NQA-1 vendor	This alignment expectation reiterates the ability to exercise the procurement option allowed by the graded approach to quality document. This allows BNI to qualify a CM vendor using and NQA-1 audit by writing a tailored engineering and quality specification and placing the vendor on the ESL as an NQA-1 qualified vendor. BNI would, however, be required to dedicate all of the vendor's incoming material.
14	Resolve criteria for review of Supplier Submittals - Specs, Supplier Procedures?	This alignment expectation reiterates the requirement to review vendor documents to contract flow down requirements. In this item, the commitment made was that vendor CGD plans would comply to the contract flow down requirements (T0019) as well as the vendor's procedure.
15	Effective use of Supplier Submittal during procurement reviews.	This alignment expectation reiterates the requirement to review vendor documents to contract flow down requirements. In this item, the commitment made was that vendor CGD plans would comply to the contract flow down requirements (T0019) as well as the vendor's procedure.
16	Work on Sampling Strategy method/ guidance.	This alignment expectation requires that when sampling is applied in a CGD plan, that the basis be EPRI TR-017218, Rev. 1. Additional guidance on generating and reviewing sampling plans will be provided to those executing the work.
17	When does a Credible Failure Modes (CFM) analysis/Failure Mode and Effects Analysis (FMEA) add value? How should they be used?	This alignment expectation requires a failure analysis be performed when the design information is not available. (Included in SOW, Standard 7(e)(3)(ii)(d) of MOD 415)
18	How to strengthen Commercial Procurements?	N/A

PL Item No	Description	Scope
19	How do we monitor Vendors/Suppliers? How far down the supply chain should BNI monitor dedication activities, and how can a procurement map aid in this effort?	This alignment expectation requires dedication activities to be submitted from all sub-suppliers performing dedication to receive appropriate code status.

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT K
LISTING OF WTP CONCEPTUAL DESIGN AND SUPPORTING INFORMATION

The following information associated with the WTP Conceptual Design and Supporting Information is provided at <http://www.hanford.gov/orp/procure/solicitations/index.html>.

The information includes:

- (a) Process and Facility Design Documentation and Analyses
 - Facility Mass and Energy Balances
 - Process Description
 - Process and Facility Drawings
 - Systems Descriptions
 - Facility Descriptions
 - Facility Capability Studies
 - Facility Expansion Capability Study
 - Interface Control Documents
- (b) Construction Planning
 - Engineering Execution Plan
 - Construction Strategy
 - Construction Mobilization Plan
 - Facility Acceptance Strategy
- (c) Technology Planning and Testing Information
 - Technology Development Plan
 - Tank Waste Sample Analyses
 - Technology Test Reports
- (d) Waste Form Qualification Strategies
 - Products and Secondary Wastes Plan
 - IHLW Waste Compliance Plan
- (e) Environmental Permitting Documentation
 - Dangerous Waste Permit Application
 - Environmental Plan
 - Risk Assessment Work Plan
 - Approach for Immobilized High Level Waste (HLW) Delisting
 - Approach for Immobilized LAW Land Disposal Restrictions (LDR) Compliance
 - Environmental Report Revision
- (f) Integrated Safety Management Program, Hazards and Safety Analysis Information
 - Documentation prepared for, and correspondence between the DE-AC06-96RL13308 Contractor Organization and the U.S. Department of Energy (DOE) Regulatory Unit can be found at <http://www.hanford.gov/osr/osr.asp>.
- (g) Cost and Schedule Documentation
 - Integrated Master Plan
 - Government Fair Cost Estimate
- (h) Quality Assurance
 - Quality Assurance Program Description.

**SECTION J – LIST OF ATTACHMENTS
ATTACHMENT L**

Reserved

**SECTION J – LIST OF ATTACHMENTS
ATTACHMENT M
DAVIS-BACON WAGE DETERMINATION**

General Decision Number WA20150002 dated July 1, 2016, is hereby incorporated as follows: (383)

General Decision Number: WA160002 07/01/2016 WA2

Superseded General Decision Number: WA20150002

State: Washington

Construction Types: Building, Heavy and Highway

Counties: Benton and Franklin Counties in Washington.
 (D.O.E. HANFORD SITE ONLY)

BENTON AND FRANKLIN COUNTIES (D.O.E. HANFORD SITE ONLY)
 BUILDING (does not include residential construction consisting
 of single family homes and apartments up to and including 4
 stories), HEAVY and HIGHWAY CONSTRUCTION

Note: Under Executive Order (EO) 13658, an hourly minimum wage
 of \$10.15 for calendar year 2016 applies to all contracts
 subject to the Davis-Bacon Act for which the solicitation was
 issued on or after January 1, 2015. If this contract is covered
 by the EO, the contractor must pay all workers in any
 classification listed on this wage determination at least
 \$10.15 (or the applicable wage rate listed on this wage
 determination, if it is higher) for all hours spent performing
 on the contract in calendar year 2016. The EO minimum wage rate
 will be adjusted annually. Additional information on contractor
 requirements and worker protections under the EO is available
 at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016
1	04/29/2016
2	07/01/2016

* SUWA2001-001 09/03/2001

(D.O.E. HANFORD SITE ONLY)

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 32.92	19.37
BOILERMAKER.....	\$ 36.44	28.41
BRICKLAYER.....	\$ 29.73	14.89
CARPENTER		
Carpenters.....	\$ 31.94	14.00
Divers.....	\$ 36.72	14.00
Millwright & Machine erector.....	\$ 41.86	14.49
Piledriver.....	\$ 32.97	14.00
Tenders.....	\$ 35.02	14.00
CEMENT MASON/CONCRETE FINISHER		
GROUP 1.....	\$ 27.01	12.59
GROUP 2.....	\$ 27.63	12.59

GROUP 3.....	\$ 28.14	12.59
DRYWALL FINISHER/TAPER.....	\$ 23.80	12.20
ELECTRICIAN		
Cable Splicers.....	\$ 40.74	3%+17.43
Electricians.....	\$ 38.80	3%+17.43
IRONWORKER.....	\$ 32.76	23.19
LABORER		
GROUP 1.....	\$ 24.78	11.23
GROUP 2.....	\$ 25.05	11.23
GROUP 3.....	\$ 25.32	11.23
GROUP 4.....	\$ 25.60	11.23
GROUP 5 (RATES PER SHIFT)		
Sandhogs-[(1-14 LBS), (6 HRS)].....	\$ 212.16	11.23
Sandhogs-[(14-18 LBS), (6 HRS)].....	\$ 217.09	11.23
Sandhogs-[(18-22 LBS), (6 HRS)].....	\$ 239.23	11.23
Sandhogs-[(18-25 LBS), (4 HRS)].....	\$ 217.37	11.23
Sandhogs-[(22-26 LBS), (4 HRS)].....	\$ 221.69	11.23
Sandhogs-[(26-32 LBS), (4 HRS)].....	\$ 224.31	11.23
Sandhogs-[(32-38 LBS), (3 HRS)].....	\$ 227.27	11.23
Sandhogs-[(38-44 LBS), (2 HRS)].....	\$ 227.68	11.23
GROUP 5 Outside Lock and Gauge Tender.....	\$ 204.80	11.23
GROUP 6.....	\$ 25.50	11.23
GROUP 7.....	\$ 26.07	11.13
GROUP 8.....	\$ 26.54	11.23
GROUP 9.....	\$ 27.31	11.23
PAINTER (Soft Floor Covers, Glaziers, Spray Painters, Steel Painters, Steam Clean and Acid Etching, Sign Writers).....		
	\$ 24.15	10.73
PLUMBER/PIPEFITTER.....	\$ 41.24	28.79
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 26.16	13.55
GROUP 2.....	\$ 26.48	13.55
GROUP 3.....	\$ 27.09	13.55
GROUP 4.....	\$ 27.41	13.55
GROUP 5.....	\$ 27.69	13.55
GROUP 6.....	\$ 27.96	13.55
GROUP 7.....	\$ 29.06	13.55
GROUP 8.....	\$ 30.40	13.55
ROOFER (Including Waterproofer and Kettleman).....		
	\$ 25.65	10.52

SHEET METAL WORKER.....	\$ 33.53	18.90
SPRINKLER FITTER.....	\$ 30.70	20.65
TRUCK DRIVER		
GROUP 1.....	\$ 22.31	17.31
GROUP 2.....	\$ 24.95	17.31
GROUP 3.....	\$ 25.06	17.31
GROUP 4.....	\$ 25.39	17.31
GROUP 5.....	\$ 25.50	17.31
GROUP 6.....	\$ 25.50	17.31
GROUP 7.....	\$ 26.04	17.31
GROUP 8.....	\$ 26.36	17.31

CEMENT MASON CLASSIFICATIONS

GROUP 1: Rodding, tamping, floating, troweling, patching, stoning, rubbing, sack rubbing; All exposed aggregate finishing and sealing. All architectural finishing, staining, stamping and coloring, washing and power washing of concrete, polymer, latex and composite materials; Setting of screeds, screeds forms, curb and gutter and sidewalk forms; Preparation of all concrete for caulking of the joints and the caulking of expansion joints; Preparation of concrete for the application of hardners, sealers and curing compounds and their application; Grouting and dry packing of machine base; Removal of snap ties and she bolts prior to patching of concrete

GROUP 2: Power troweling machine operator; Troweling of magnesite, torganal or material with epoxy bases of oxichloride base; All power grinders, bushing hammer, chipping gun; Gunitite Nozzleman. All sandblasting for architectural finishes, patch preparation and exposing of aggregate for finish; Concrete sawing and cutting for concrete and expansion joints and scoring for decorative patterns; Operating of Clary-type floats, Longitudinal Floats, Rodding Machines and Belting Machines; Scarifiers; Working on scaffolds

GROUP 3: Grinding, bushing or chipping of toxic materials or high density concrete; Operating of power tools on a scaffold

LABORER CLASSIFICATIONS

GROUP 1: Flagman, Landscape Laborer, Scaleman, Traffic Control Supervisor, Asbestos Abatement Worker, Brick Pavers (to include the installation of brick or grass pavers for sidewalks, driveways, streets and parking lots), Brush Hog Feeder; Carpenter Tender; Cement Handler; Concrete Signalman; Concrete Crewman (to include Stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezecrete or similar machine- 6 inches and smaller); Confined Space Attendant, Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dry Stack Walls (including all dry stack walls, including keystone walls and others using blocks and interlocking pegs.), Dumpman; Traffic Control Laborer (To include but is not limited to,

erection and maintenance of barricades, signs and relief of flag person.), Window Washer/Cleaner, Pilot Car, Hazardous Waster Worker, Erosion Control Laborer, Fence Erector, Guard Rail (to include Guard Rail, guide and reference posts, sign posts, and right-of-way markers); Firewatch. Form cleaning machine feeder; Stacker; General Laborer; Group Machine Header Tender; Miner, Class "A" (to include bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly and dismantle, and nipper); Lead Abatement Worker, Mold Abatement Worker, Nipper; Riprap Man; Sandblast Tailhoseman, Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Wellpoint Man; (HDPE or similar liner installer).

GROUP 2: Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Fireman, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, paving; Jackhammer Operator; Miner, Class "B" (to include brakeman, finisher, vibrator, and form setter); Nozzleman (to include squeeze and flow-crete nozzle); Nozzleman, water, (to include fire hose), air or steam; Pavement Breaker (under 90 lbs); Pipelayer, corrugated metal and multi-plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electrical, pneumatic; Rodder and Spreader; Trencher, Shawnee; Tugger Operator; Wagon Drills; Wheelbarrow, power driven; Water Pipe Liner, Rigger/Signalperson, Remote Equipment Operator (i.e., compaction and demolition) Compaction Equipment (to include all hand operated power compaction equipment); Railroad Power Spiker or Puller, dual mobile; Railroad Equipment, power driven, except dual mobile power spiker or puller.

GROUP 3: Air and Hydraulic Track Drill, Asphalt Raker, Brush Machine (to include Horizontal construction joint clean-up brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include Laborers when working on free standing concrete stacks for smoke or fume control above 40 ft high); Gunnite (to include operation of machine and nozzle); High Scaler; Miner, Class "C" (to include miner, nozzleman for concrete, laser beam operator, and Rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1200 lbs., jet blast machine, power propelled, sandblast nozzle, Squeeze and Flo-crete nozzle); Pavement Breaker, 90 lbs. & over; Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer, temper, (Including pressurized and non-pressurized ductile pipe, gravity pipe and HDPE (fused and non-fused); Pipewrapper; Plasterer Tender, Trenchless Technology, Vibrators (all); Laser Beam Operator (Elevation Control; Technician)

GROUP 4: Drills with dual masts, Miner, Class "D" (to include Raise and Shaft Miner, Laser Beam Operator on raises and

shafts.) Welder, electric, manual or automatic, Remote Equipment Operator (to include HDPE or similar pipe and liner)

GROUP 5: Sandhogs under compressed air (rates increases are computed by multiplying the increase x 8 hr shift and add total to the previous rate)

GROUP 6: Construction Specialist

GROUP 7: Hod Carrier

GROUP 8: Powderman

GROUP 9: Grade Checker

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel or electric power); Crusher Feeder (mechanical); Deck Hand; Drillers Tender; Fireman and Heater Tender; Grade Checker; Tender Mechanic, Welder H.D.; Hydro-seeder, Mulcher, Nozzleman; Oiler; Oiler and Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade (farm type, Case, John Deere and similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Steam Cleaner; Welding Machine

GROUP 2: A-Frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas, diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator, hoisting materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, Hydra-lift and similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket, elevators and conveyors); Longitudinal Float; Mixer (portable - concrete); Pavement Breaker, Hydra-hammer and similar; Power Broom; Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross and similar on construction job only); Tractor (Farm type R/T with attachments, except Backhoe); Tugger Operator

GROUP 3: A-Frame Truck (2 or more drums); Assistant Refrigeration Plant and Chiller Operator (over 1000 ton); Backfillers (Cleveland and similar); Batch Plant and Wet Mix Operator single unit (concrete); Belt-crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bend Machine; Bob Cat; Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginaw or similar); Canal Lining Machine (concrete) Chipper (without crane), Cleaning and Doping Machine (pipeline); Curb Extruder (Asphalt and Concrete); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green and similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel, electric); Gunite Combination Mixer and Compressor; Locomotive Engineer; Mixermobile; Posthole

Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Surface Heater and Planer Machine; Tractor (to D-6 or equivalent) and Traxacavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Blade Operator (motor patrol and attachments); Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman and similar); Drilling Equipment (8 inch bit and over) (Robbins, reverse circulation and similar); Drills (Churn, Core, Calyx, or Diamond); Equipment Serviceman, Greaser and Oiler; Hoe Ram; Hoist (2 or more drums or Tower Hoist); Loaders (overhead and front-end, under 4 yards R/T); Paving (Dual Drum) Rubber Tire; Refrigeration Plant Engineers (under 1000 ton); Signalman (Whileys, Highline, Hammerheads or similar); Skidders (R/T with or without attachments); Screed Operator; Trenching Machines (under 7 ft depth capacity); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Automatic Subgrader (Ditches and Trimmers) (Autograde, ABC, R.A. Hansen and similar on grade wire); Backhoe (under 1 yd); Batch Plant (over 4 units); Batch and Wet Mix Operator (multiple units, 2 and including 4); Boat Operator; Cableway Controller (dispatcher); Concrete Pump Boom Truck; Conveyor Aggregate Placement Equipment; Cranes (25 tons and under); Derricks and Stifflegs (under 65 tons); Drill Doctor; Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Piledriving Engineers; Rollermerman (finishing pavement); Trenching Machines (7 ft depth and over)

GROUP 6: Asphalt Plant Operator (Backhoes (1 yd to 3 yds); Blade (finish and bluetop) Automatic, CMI, ABC and similar when used as automatic; Boom Cats (side); Cableway Operators; Clamshell Operators (under 3 yds); Concrete Slip Form Paver; Cranes (over 25 tons, including 45 tons); Crusher, Grizzle and Screening Plant Operator; Draglines (under 3 yds); Elevating Belt (holland type); Gradall (1 yd to 3 yds); Loader Operator (front-end and overhead, 4 yards, including 8 yds); Mucking Machine; Quadtrack or similar equipment; Rubber-tired Scrapers; Shovels (under 3 yds); Tractors (D-6 and equivalent and over); Vactor Guzzler, Super Sucker; Concrete Cleaning/Decontamination Machine; Ultra High Pressure Waterjet Cutting Tool System (30,000 psi)

GROUP 7: Backhoes (3 yds and over); Cranes (All Cranes over 45 tons, including 100 tons) Climbing, Rail and Tower Cranes up to including 45 tons; Clamshell Operator (3 yds. and over); Derricks and Stifflegs (65 tons and over); Draglines (3 yds and over); Lead Water Well Driller; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead and front-end, over 8 yds); Shovels (3 yds and over); Whirleys and Hammerheads, all; Vacuum Blasting Machine Operator; HD Mechanic/welder

GROUP 8: Cranes (all cranes over 100 tons); Climbing, Rail and Tower Cranes over 45 tons

ALL CRANE BOOMS, INCLUDING TOWER CRANES:

Measure from center of rotation to center of shaft (radius):
130 ft TO 200 ft .50 hr. additional to classification
Over 200 ft .80 hr. additional to classification

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car tender and swamper,
Pickup Hauling Employees or Materials

GROUP 2: Flat Bed Truck, single rear axle; Fork Lift, 3000
lbs and under; Leverperson Loading Trucks at Bunkers;
Seeder and Mulcher; Stationary Fuel Operator; Team Driver;
Tractor (small rubber tired, pulling trailer or similar
equipment); Trailer Mounted hydro Seeder and Mulcher; Water
Tank Truck, up to 1800 gallons

GROUP 3: Bus Driver or Employee Haul Driver; Flat Bed Truck,
dual rear axle; Power Boat hauling employees or material

GROUP 4: Buggy Mobile and similar; Bulk Cement Tanks and
Spreader; Power Operated Sweeper; Straddle Carrier (Ross,
Hyster and similar); Water Tank Truck, 1801-4000 gallons

GROUP 5: Auto Crane, 2000 lbs capacity; Dumptor (6 yds and
under); Flat Bed Truck (with hydraulic system); Fork Lift
(3001-16,000 lbs); Fuel Truck Driver, steam cleaner and
washer; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry
Truck Driver; Transite Mixers & mixers hauling concrete 3
yd to and including 6 yd.; Wrecker and Tow Trucks

GROUP 6: A-Frame; Service Greaser; Tireperson; Truck, side,
end, and bottom & articulated end dump (up to and including
12 yds); Water Tank Truck, 4001 to 8000 gallons,
Warehouseperson, to include shipping and receiving

GROUP 7: Dumps, semi-end; Flagerty Spreader Box Driver;
Flowboys; Fork lift, 16,000 lbs and over; Lowboy, 50 tons
and under; Mechanic, Field; Oil Distributors Driver (road,
bootperson, leverperson); and Oil Tank Driver; Self-Loading
Roll Off and Dumpster over 6 yds; Stringer Truck (cable
operated trailer); Tractor with Steer Trailer; Transfer
Truck & Trailer; Transit Mixers & Truck Hauling Concrete:
over 6 yards to and including 20 yards; Truck & Pup;
Trucks, side, end, bottom, & articulated end dump: over 12
yards to and including 100 yards; Truck Mounted Crane (with
load-bearing surface, either mounted or pulled) up to 14
tons; Turnarocker, DWs & similar, with 2 or or more 4
wheel-power tractor with trailer, gallonage or yardage
scale, whichever is greater; Vacuum truck (super sucker,
guzzler, etc.); Water Tank Truck, 8,001 to 14,000;
Semi-truck and Trailer, 50 tons and under Lowboy

GROUP 8: Lowboy, over 50 tons; Prime movers & stinger truck;
Transit Mixers and truck hauling concrete, over 20 yards;
Trucks, side, end bottom and articulated end dump, over 100
yards.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

SECTION J – LIST OF ATTACHMENTS
ATTACHMENT N
ALTERNATIVE DISPUTE RESOLUTION (147)

Purpose: Contract Clause H.34, “Alternative Dispute Resolution” (ADR) provisions were established to facilitate the early resolution of disputes. This procedure defines the agreed continued ADR process for selection and utilization of a “Standing Neutral” (SN) in the instance an agreement cannot be reached through informal negotiations.

Scope: In recognition of mutual interests, the U.S. Department of Energy (DOE) and Bechtel National, Inc. (BNI), “the Parties,” shall use their best efforts to informally resolve any dispute, claim, question, or disagreement (“the issue”), by consulting and negotiating with each other in good faith and attempting to reach a just and equitable solution satisfactory to both Parties. If an agreement cannot be reached through informal negotiations, then such disagreement shall be referred to the SN, pursuant to the following selection and proceeding process.

Process: When informal negotiations reach an impasse, either Party may initiate the continued ADR process, utilizing a SN, by issuing a written ADR proceeding notification to the other Party. The Party issuing notice shall propose two (2) SN candidates for consideration by the other Party. The proposed candidates shall have proven expertise in the area of disagreement. If a SN cannot be agreed upon within ten (10) business days, the DOE Office of Dispute Resolution shall assist the Parties in this selection. At any point during the ADR proceedings either Party may acquiesce to the other Party’s position, and the dispute shall be considered resolved.

It shall be incumbent on both Parties to fully discuss and demonstrate how the issue has or will adversely affect that Party’s ability to perform its contractual requirements in a timely and cost efficient manner. Accordingly, within ten (10) business days of the ADR proceeding notification, both Parties shall submit, in writing, a “Resolution Memorandum” (RM) to the other Party and SN defining the issue and describing its recommendation for resolution. The RM shall address all relevant facts, which would include, as appropriate, discussion regarding an alleged impact event, work scope affected, and the contractual and equitable basis for proposed settlement. If any cost and schedule adjustments are recommended, the basis for such adjustments shall be quantified.

Following RM review, the SN shall establish a meeting time and place for convening the ADR meeting. The SN, not later than fifteen (15) business days following ADR proceeding notification, shall issue an agenda for the meeting. The agenda shall allow each Party the opportunity to fully explain its position regarding the issue and allow for an exchange of dialogue. The SN shall ensure a meeting attendance sheet is completed and formal meeting minutes are issued to both Parties within three (3) business days of the meeting date.

The Parties shall jointly meet with the SN to discuss the issue. Each Party shall be allowed up to three (3) representatives for meeting attendance, inclusive of a spokesman, to address the technical, financial, and contractual merits of the issue. Each Party shall be free to select its own representatives as it sees fit. The representative selections shall be identified in writing, by name and title, to the SN and other Party within ten (10) business days following ADR proceeding notification. The Parties and SN shall initially meet, at a mutually agreeable time and place, no later than thirty (30) calendar days from the date of ADR proceeding notification. The need for subsequent meetings shall jointly be agreed.

The SN shall evaluate all facts and provide a written settlement recommendation to both Parties no later than ten (10) business days following the last meeting. The subject recommendation shall discuss, as appropriate, the alleged impact event, perceived work scope affected, and cite its contractual and equitable basis for settlement or rejection. In the instance certain cost and schedule adjustments are recommended, the basis for such adjustments shall be quantified.

Although the SN settlement recommendation shall be considered nonbinding, in the interest of early dispute resolution, both Parties shall seriously consider such advisement. The DOE Contracting Officer shall issue the final DOE written dispute determination to BNI within five (5) business days after receipt of the SN’s settlement recommendation. BNI shall advise the Contracting Officer, in writing, of the acceptability of the DOE dispute determination within five (5) business days after its receipt. The SN shall be copied on all such correspondence.

At this point the ADR process, utilizing a SN, shall be considered closed. If the dispute has not been resolved through the SN process, either Party may request resolution under the Disputes Clause of this Contract.

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT O
 LIST OF EXCLUSIONS UNDER FAR 52.225-11 (b) (3) BUY AMERICAN ACT – CONSTRUCTION
 MATERIALS UNDER TRADE AGREEMENTS**

Material Description	Modification No.
Purchases under \$100,000 for construction material – replacement parts that must be acquired from the original foreign manufacturer or supplier, either directly or indirectly, because such parts are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality, or use of domestic parts would invalidate manufacturer/supplier warranties, or adversely affects the system safety or performance function. The Contractor must use good faith efforts to acquire construction material that complies with the <i>Buy American Act</i> , and document justification and determination of inapplicability for use of foreign materials in accordance with FAR 25.205(a); and paragraph (c)(1) of this clause. DEAR 925.202 states that if the cost of the materials is expected to exceed \$100,000, the Head of the Contracting Activity shall approve the determination. The Contractor shall not split acquisitions to avoid exceeding the acquisition threshold stated herein. Acquisition of foreign construction material that exceeds the \$100,000 threshold, must be submitted to the Contracting Officer to obtain Head of the Contracting Activity approval. BNI must submit an annual report to the Contracting Officer for all foreign construction materials purchased under this paragraph. The report shall state the materials, acquisition price, vendor, and country of origin. The Contracting Officer reserves the right to re-negotiate consideration in accordance with FAR 25.205(c) if determined in the Government’s best interest.	184
Purchase of screwed ductile iron fittings and screwed cast iron fittings for the WTP fire protection system under Subcontract No. 24590-CM-HC1-PY21-00002.	189
Purchase of non-safety Pressure Differential Gauges, with Dial Indication, 4.5 inch, type 1133, under Subcontract No. 24590-CM-POA-JP01-00001.	303
Purchase of Tie Rods for Modification to Onsite Safeflex Expansion Joints under Purchase Order 24590-CM-POA-MERK-00001.	303
Purchase of 41 Colton Vacuum Breakers, Model CVB-200SS under Purchase Order 24590-CM-POA-PY01-00011.	353

**SECTION J – LIST OF ATTACHMENTS
 ATTACHMENT P
 COMPLETION DEFINITION SHEETS FOR INCENTIVE FEES (384)**

Line #	PBI	Milestone
A-1	EPC	Install Caustic Scrubber Vessel
A-2	EPC	Complete Final Assembly of Melter #1
A-3	EPC	Complete Final Assembly of Melter #2
A-4	EPC	Complete LAW Bulk Cable EI +48
A-5	EPC	LBL Physical Plant Complete
B-1	S/U & C	ORP (safety evaluation report [SER]) approval of LAW Documented Safety Analysis (DSA)
B-2	S/U & C	LAB Startup Testing Complete
B-3	S/U & C	LAW Startup Testing Complete
B-4	S/U & C	EMF Startup Testing Complete
B-5	S/U & C	LAB Readiness to Operate
B-6	S/U & C	LAW DOE Headquarters Operational Readiness Review (ORR) complete
B-7	S/U & C	Successful Demonstration of Hot Commissioning
DF-01		DFLAW CLIN 2.1
DF-02		DFLAW CLIN 2.1
DF-03		DFLAW CLIN 2.1

CONTRACT FEE MILESTONES

The following conditions apply to all fee-bearing milestones:

- Key predecessor activities listed on the milestone sheets will be complete.
- DOE-WTP will confirm completion within thirty (30) days of receiving the documentation.
- BNI will provide a listing of any milestone exceptions and open quality documents (including punch lists, construction deficiency reports, nonconformance reports, field changes, and vendor documentation) that do not functionally impact or impede successor activities, along with justification for each one.
- DOE-WTP has the final authority for the acceptance of milestone completions subject to the dispute provisions of this Contract.
- Any changes that occur after the achievement of the milestone will not invalidate completion.
- All documents (including memoranda providing copies of interim documents), drawings, calculations, and specifications will be available for review in Project Document Control and will be readily accessible to DOE-WTP.

Milestone

Interim Milestone A-1, LBL Physical Plant Complete Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	4LL4608B10	Install Caustic Scrubber Vessel

Milestone Definition

Install the caustic scrubber in its final location in order to facilitate the completion of the 48-foot elevation of the LAW Facility. This piece of equipment is located in the central region of the 48-foot elevation of the LAW building and is the keystone to facilitating the completion activities for the offgas systems in the upper elevation of the LAW building (+48-foot elevation).

- a) Complete the Material Receiving Report associated with the receipt of the caustic scrubber.
- b) Close all nonconformance reports associated with the caustic scrubber.
- c) Set the caustic scrubber in its final location on anchor bolts.
- d) Install internal components in the caustic scrubber vessel.

Inclusions

N/A

Exclusions

N/A

Objective Evidence of Milestone Completion and Key Predecessors

This milestone shall be considered complete upon installation of the caustic scrubber in its final location on anchor bolts with the internal components installed. This will be demonstrated by:

- Completion of the milestone will include issuance to Project Document Control of the G321V. In addition, completion of this milestone will include a screen shot from the Bechtel Procurement System demonstrating that the material receiving report number has been issued for the specific shipment and the material receiving report has been completed and issued by Project Document Control.
- Completion of the schedule activity codes listed in the table below for the installation of the caustic scrubber vessel.

DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, "Supplies or Services and Prices/Costs," Attachment B-2-E, "Incentive Fee E - LBL Physical Plant Complete Performance Based Incentive Fee."

Activity ID	Description
9FL4610210	LAW - QN - Ship - LVP-SCB-01 - Caustic Scrubber - QL-MRA-MKAS-00003
9FL4610230	LAW - QN - DMY - LVP-SCB-01 - Caustic Scrubber - QL-MRA-MKAS-00003
9ZL4610250	LAW - QN - QC/MRR - LVP-SCB-01 - Caustic Scrubber -QL-MRA-MKAS-00003
4LL4608B10	Install Melter Offgas Caustic Scrubber (LVP-SCB-00001) PA08B EL+48

Milestone

Interim Milestone A-2 LBL Physical Plant Complete Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	4LL4602B90	Complete Final Assembly of Melter #1

Milestone Definition

Complete final structural assembly of Melter #1 as described by Hold Point 22 of the specification entitled *Site Assembly of LAW Melter*, document number 24590-LAW-3PS-LMP-T00002, which states:

Contractor to verify Shielded Lid welds completed IAW WTP-M-11960 and Shield Lid position, relative the Gas Barrier Lid, has not changed as verified with the previously installed measuring instruments.

Inclusions

Shielded Lid Installation includes:

- Connecting the gas barrier lid cooling water pipe flanges to the cooling water supply header flex hoses, reinstalling the Shielded Lid Northeast Side Cooling Water Access Flange Cover and the North Side West Cooling Water Access Flange Cover.
- Welding the shielded lid to the shielded wall.
- Inspection and/or nondestructive examination of welding and assembly as applicable.
- Measuring any shifting of the shielded lid ports in respect to the gas barrier lid ports during the shielded lid to shielded wall welding.
- Nonconformance issues pertinent to lid installation have been closed.

Exclusions

- Utility hook-ups.
- Piping connections.

Objective Evidence of Milestone Completion and Key Predecessor

This milestone shall be considered complete upon the installation of Melter #1 Lid Refractories and completion of the welding of the shield lid to the melter. Evidence of completion includes:

- Copy of inspection reports with signoffs – this includes visual weld examination records, nondestructive examination records, and pipe/flange assembly inspection records
- Copy of inspection report with signoffs confirming acceptable condition – or replacement if required-- of Shielded Lid North Side East and North Side West Cooling Water Access Flange Cover gaskets
- Copy of inspection report with signoffs confirming the Shielded Lid position relative to the Gas Barrier Lid did not change during welding
- Nonconformance issues pertinent to lid installation have been closed

DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, "Supplies or Services and Prices/Costs," Attachment B-2-E, "Incentive Fee E – LBL Physical Plant Complete Performance Based Incentive Fee."

Activity ID	Description
4LL4601B89	LAW – Melter #1 Complete Melter Lid Castable Placements

Activity ID	Description
4LL4602B90	LAW – Melter #1 Install and Weld Shield Lid

Milestone

Interim Milestone A-3, LBL Physical Plant Complete Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	4LL4602B89	Complete Final Assembly of Melter #2

Milestone Definition

Complete final structural assembly of Melter #2 as described by Hold Point 22 of the specification entitled, *Site Assembly of LAW Melters*, document number 24590-KAW-3PS-LMP-T00002, Rev. 2 (effective March 24, 2016), which states:

Contractor to verify Shielded Lid welds completed IAW WTP-M-11960 and Shield Lid position, relative to the Gas Barrier Lid, has not changed, as verified with the previously installed measuring instruments.

Inclusions

Shielded Lid Installation included:

- Connecting the Gas Barrier Lid cooling water pipe flanges to the cooling water supply header flex hoses. Reinstalling the shielded Lid Northeast Sided Cooling Water Access Flange cover and the North side West Cooling Water Access Flange cover.
- Welding the Shielded Lid to the Shielded Wall.
- Inspection and/or nondestructive examination of welding and assembly as applicable.
- Measuring any shifting of the Shielded Lid ports in respect to the Gas Barrier Lid port during the Shielded Lid to Shielded Wall welding.
- Nonconformance issues pertinent to lid installation have been closed.

Exclusions

- Utility hook-ups.
- Piping connections.

Objective Evidence of Milestone Completion and Key Predecessor

This milestone shall be considered complete upon the installation of Melter #2 Lid Refractories and completion of the welding of the Shield Lid to the melter. Evidence of completion includes:

- Copy of inspection reports with signoffs – this includes visual weld examination records, nondestructive examination records, and pipe/flange assembly inspection records
- Copy of inspection report with signoffs confirming acceptable condition – or replacement if required – of Shielded Lid North Side East and North Side West Cooling Water Access Flange Cover gaskets
- Copy of inspection report with signoffs confirming the Shielded Lid position relative to the Gas Barrier Lid did not change during welding
- Nonconformance issues pertinent to lid installation have been closed.

DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, “Supplies or Services and Prices/Costs,” Attachment B-2-E, “Incentive Fee E - LBL Physical Plant Complete Performance Based Incentive Fee.”

Activity ID	Description
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4LL4601B90	LAW – Melter #2 Complete Melter Lid Castable Placements
4LL4602B89	LAW – Melter #2 Install and Weld Shield Lid

Milestone

Milestone A-4 LBL Physical Plant Complete Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	4LL1610512	Complete LAW Bulk Cable EI +48

Milestone Definition

Complete the bulk wire pulls associated with the last LAW elevation (+48 feet). Complete all SetRoute cards related to "LAW-Installation of Scheduled Bulk Cable EL+48."

Inclusions

This includes all scheduled power, control, instrumentation, and fiber optic cables including completion of all raceway systems (cable tray and raceways), and completed inspections records ensuring contractual requirements (design, codes, and standards). Electrical wiring is complete.

Exclusions

N/A

Objective Evidence of Milestone Completion and Key Predecessors

- This milestone shall be considered complete upon the completion of LAW Bulk Cable campaign at elevation +48 feet. The raceway and cable lists will be generated from Setroute four (4) months prior to the milestone completion date. Set Route inspection records
 - Raceway installation cards complete
 - Cable installation cards complete
- Turnover Exception Report.

All A Punch List items complete as defined in procedure 24590-WTP-GPP-CON-1603.

DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, "Supplies or Services and Prices/Costs," Attachment B-2-E, "Incentive Fee E - LBL Physical Plant Complete Performance Based Incentive Fee."

Activity ID	Description
4LL1610512	LAW-Installation of Scheduled Bulk Cable EL+48
4LL16132N7	LAW-Completion of Cable Tray EL+48 (Part 2)
4LL16COND12	LAW-Completion of Scheduled Conduit EL+48 (Phase B)

Milestone

Milestone A-5 Final LBL Physical Plant Complete Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	4LL0000999	LBL Physical Plant Complete

Milestone Definition

This milestone is achieved when the LAW Facility is constructed and major mechanical and electrical systems have been installed. This includes completion of the building structure; the installation, testing, and inspection of equipment and piping; installation of electrical raceway and cables, instrumentation, tubing, permanent lighting, grounding, and lightning protection. LAB and BOF facilities, which support DFLAW operations must also be constructed, as defined in the “Objective Evidence of Milestone Complete” section.

Inclusions

Completed scope includes scheduled activities tied to “Physical Plant complete” identified in Table C.5-1.1, Deliverable 1.13. The following building components/items will be finished at LAW Physical Plant complete stage:

- Building structure is complete, including architectural finishes walls, doors, and penetrations
- LAW mechanical systems are complete:
 - Equipment is installed, tested, and inspected
 - Piping is installed, tested, and inspected
 - Vessels installed, tested, and inspected
 - Ventilation systems installed, tested, and inspected
- Electrical raceway, cables, and terminations installed:
 - Instrumentation racks, instrumentation, and associated tubing are installed
 - Permanent lighting, grounding, and lightning protection for the facility are complete
 - Control and communication systems are installed
 - Motor control centers are installed.

Exclusions

Elements of work, which remain unfinished or are yet to be performed, which do not prevent the testing of systems, in part or in whole, for its intended purpose as identified in Table C.5-1.1, Deliverable 1.13.

- Type B Punch List-like items as identified in procedure 25490-WTP-GPP-CON-1603
 - Intentionally excluded items necessary to facilitate startup activities
 - Items subject to obsolescence and maintenance
 - Installation of components deferred to protect government property
- All new safety-significant components as defined in the completed PrHA tables and the preliminary documented safety analysis (PDSA) - DSA evolution.

Objective Evidence of Milestone Completion and Key Predecessors

This milestone shall be considered complete upon the completion of all the associated LAW “Physical Plant complete” activity IDs as delineated in Table C.5-1.1, Deliverable 1.13.

The activities can be compared to the completed construction installation inspection media (depending upon function/discipline) to ensure all of those scoped for completion are complete. For instance, for electrical construction installations, Setroute cards associated with those electrical scheduled items can be verified as complete.

All ninety (90) percent design reviews are completed and all actions except for B Punch List items are complete.

At completion of this milestone, the LAB will be construction-complete for servicing DFLAW operations, with temporary isolations in place for ventilation system components necessary to support HLW and PT. These modifications will allow the LAB systems to be tested for DFLAW operations. Remaining LAB scope necessary for HLW and PT will be deferred until needed to support HLW operations.

The BOF will be constructed and in startup testing for DFLAW operations. This includes reconfiguration of the systems for DFLAW demand and isolations of systems to allow for operations of DFLAW with concurrent construction in HLW and PT. CLIN 2.0 work added to BOF necessary to bypass PT will be under construction. This includes the EMF, waste transfer lines, and added utilities needed to operate the EMF.

A quarterly update will be provided to DOE clearly showing those schedule items that are actualized as being complete. This will enable an incremental review/walkdown to be executed to verify completion.

DOE shall provide concurrence regarding completion of the Physical Plant complete milestone or provide notice of material deficiencies within thirty (30) working days of receipt of declaration of completion. In the event DOE provides notice of material deficiencies after thirty (30) working days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, "Supplies or Services and Prices/Costs," Attachment B-2-E, "Incentive Fee E - LBL Physical Plant Complete Performance Based Incentive Fee."

Activity ID	Description
4LL0000999	LBL Physical Plant Complete

Milestone

Interim Milestone B-1 Commission LBL in the DFLAW Configuration Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	7KLLK2A1626	ORP (SER) Approval of LAW DSA

Milestone Definition

Prepare and issue the LAW DSA and associated technical safety requirements (TSR). Submit the documents to DOE and receive a SER from DOE approving the DSA and TSRs, with conditions of approval as warranted, and directing implementation of the documents.

Predecessors to completion of the LAW DSA, which must be complete include the following:

- The LAW PDSA change package (CP) with updates to the control selection consistent with DOE-STD-3009-1994, CN3 and compliant with 15-NSD-0017, “Contract No. DE-AC27-01RV14136 – Updated Safety Analysis Direction”
- A DOE approved Unreviewed Safety Question procedure.

Inclusions

N/A

Exclusions

N/A

Objective Evidence of Milestone Completion and Key Predecessors

This milestone shall be considered complete upon transmission by DOE of a SER which approves the LAW DSA and associated TSRs, including conditions of approval as warranted. The LAW DSA shall be a complete standalone DSA to support DFLAW operations. The LAW DSA shall consist of a 17 chapter DSA which complies with DOE-STD-3009-94 CN3.

Described above.

Activity ID	Description	Date
	General Volume DSA	
7KLLK2A1626	ORP (SER) Approval of LAW DSA	15-Aug-18

Milestone

Interim Milestone B-2, Commission LBL in the DFLAW Configuration Performance Based Incentive Fee

Facility	Activity ID	Description
LAB	5HTC107610	LAB Startup Testing Complete

Milestone Definition

Component and system testing within the scoped system boundaries of the LAB facility, as needed to support DFLAW, is complete and the LAB systems have been accepted by plant operations.

Systems that will be tested to achieve LAB startup testing complete include only those LAB systems to operate in the DFLAW configuration. Any LAB systems not needed to support DFLAW operations shall be excluded. Systems within the LAB requiring testing are as follows:

FPW-A-01 NM	Fire Protection Water System
FDE-A-01 NM	Fire Detection and Alarm System
MVE-A-01 NM	Medium Voltage Electrical System
DOW-A-01 NM	Domestic (potable) Water System
LVE-A-01 NM	Low Voltage Electrical System
SND-A-01 NM	Sanitary Disposal System
LTE-A-01 NM	Lighting Electrical System
PCJ2 NM	Process Control system
UPE-A-01 NM	Uninterruptible Power Electrical System
SCW-A-01 NM	Steam Condensate Water System
MXG-A-01 NM	Miscellaneous Gases System
CHW-A-01 NM	Chilled Water System
PSA-A-01 NM	Plant Service Air System
RLD-A-01 NM	Radioactive Liquid Waste Disposal System
ASX-A-01 NM	Autosampling System
LPS-A-01 NM	Low Pressure Steam System
DIW-A-01 NM	Demineralized Water System
ASJ-A-01 NM	Autosampling Control System
PVA-A-01 NM	Plant Vacuum Air System
BAG-A-01 NM	Bottled Argon Gas System
BHG-A-01 NM	Bottled Helium Gas System
C1V-A-01 NM	C1 Ventilation System
BNG-A-01 NM	Bottled Nitrogen Gas System
C3V-A-01 NM	C3 Ventilation System
C2V-A-01 NM	C2 Ventilation System
CME	Communications Electrical System

If BNI determines that one or more of the listed systems are not required, notification and justification will be provided to DOE for review and concurrence.

Inclusions

All systems necessary to operate the LAB in support of DFLAW operations.

Exclusions

- All systems and components not required for DFLAW operations
- B Punch List items accepted by plant operations acceptance of the systems.

Objective Evidence of Milestone Completion and Key Predecessors

This milestone shall be considered complete upon completion of individual system and component testing and turnover, and acceptance of all systems necessary for DFLAW operation to commissioning and operations in accordance with procedure 24590-WTP-GPP-MGT-042 (as amended). Compliance with procedure 24590-WTP-GPP-MGT-042 will be demonstrated through delivery of Contractor certification and reference to complete turnover records. DOE oversight will validate the Contractor’s assessment.

DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, Table B-2-F.

Startup component and system testing includes all work defined through completion of the following activities:

Activity ID	Activity Name
5HTC107700	LAB - SU Component & System Testing - FPW-A-01 NM
5HTC107680	LAB - SU Component & System Testing - FDE-A-01 NM
5HTC107970	LAB - SU Component & System Testing - MVE-A-01 NM
5HTC107660	LAB - SU Component & System Testing - DOW-A-01 NM
5HTC107760	LAB - SU Component & System Testing - LVE-A-01 NM
5HTC108010	LAB - SU Component & System Testing - SND-A-01 NM
5HTC107740	LAB - SU Component & System Testing - LTE-A-01 NM
5HTC107800	LAB - SU Component & System Testing - PCJ2 NM
5HTC107920	LAB - SU Component & System Testing - UPE-A-01 NM
5HTC107880	LAB - SU Component & System Testing - SCW-A-01 NM
5HTC107780	LAB - SU Component & System Testing - MXG-A-01 NM
5HTC107600	LAB - SU Component & System Testing - CHW-A-01 NM
5HTC107820	LAB - SU Component & System Testing - PSA-A-01 NM
5HTC107860	LAB - SU Component & System Testing - RLD-A-01 NM
5HTC107420	LAB - SU Component & System Testing - ASX-A-01 NM
5HTC107720	LAB - SU Component & System Testing - LPS-A-01 NM
5HTC107640	LAB - SU Component & System Testing - DIW-A-01 NM
5HTC108190	LAB - SU Component & System Testing - ASJ-A-01 NM
5HTC107840	LAB - SU Component & System Testing - PVA-A-01 NM
5HTC107440	LAB - SU Component & System Testing - BAG-A-01 NM
5HTC107460	LAB - SU Component & System Testing - BHG-A-01 NM
5HTC107520	LAB - SU Component & System Testing - C1V-A-01 NM
5HTC107480	LAB - SU Component & System Testing - BNG-A-01 NM
5HTC107560	LAB - SU Component & System Testing - C3V-A-01 NM
5HTC107540	LAB - SU Component & System Testing - C2V-A-01 NM
4TT56230	LAB - Construction Turnover to Startup - Communications Electrical System CME
5HTC107610	LAB - SU Component & System Testing Complete

Milestone

Interim Milestone B-3, Commission LBL in the DFLAW Configuration Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	5HLC107600	LAW Startup Testing Complete

Milestone Definition

Component and system testing within the scoped system boundaries of the LAW Facility systems are complete and LAW systems have been accepted by plant operations.

Systems within LAW requiring testing are as follows:

GRE	Grounding & Lightning Protection Electric System
SND	Sanitary Disposal System
DCE	DC Electrical System
FPW	Fire Protection Water System
MVE	Medium Voltage Electrical System
NLD	Non-radioactive Liquid Waste Disposal System
ASJ	Autosampling Control System
FNJ	Facility Network Infrastructure System
MHJ	Mechanical Handling Control System
PCJ	Process Control system
THE	Heat Trace Electrical System
C1V	C1 Ventilation System
LVE	Low Voltage Electrical System
PPJ	Programmable Protection system
LTE	Lighting Electrical System
PSA	Plant Service Air System
ISA	Instrument Air System
PSW	Process Service Water System
DOW	Domestic (potable) Water System
HPS	High Pressure Steam System
FDE	Fire Detection and Alarm System
UPE	Uninterruptible Power Electrical System
LPS	Low Pressure Steam System
DIW	Demineralized Water System
SCW	Steam Condensate Water System
CHW	Chilled Water System
ARV	Atmospheric Reference Ventilation System
CDG	Carbon Dioxide Gas System
AMR	Ammonia Reagent System
C5V	C5 Ventilation System
ASX	Autosampling System
LFH1	LAW Container Finishing Handline System Melter #1
C3V	C3 Ventilation System
LMH	LAW Melter Handling System

MXG	Miscellaneous Gases System
LFH2	LAW Container Finishing Handline System Melter #2
SHR	Sodium Hydroxide Reagent System
LSH	LAW Melter Equipment Support Handling System
RLD	Radioactive Liquid Waste Disposal System
LRH	LAW Container Receipt Handling System
PTJ	Process & Mechanical Handling CCTV System
CME	Communications Electrical System
C2V	C2 Ventilation System
LCP1	Concentrate Receipt Process System 1
RWH	Radioactive Solid Waste Handling System
LCP2	Concentrate Receipt Process System 2
LVP	LAW Secondary Offgas/Vessel Vent Process System
LEH	LAW Container Export Handling System
PCW	Plant Cooling Water System
SDJ	Stack Discharge Monitoring system
LFP1	Melter Feed Process System 1
LMP1	Melter Process System 1
LOP1	Primary Offgas Process System 1
LPH	LAW Container Pour Handling Process
RPJ	Radiological Personnel Monitoring System
CPE	Cathodic Protection Electrical System
EMJ	Environmental Monitoring System
LFP2	Melter Feed Process System 2
LOP2	Primary Offgas Process System 2
LMP2	Melter Process System 2
GFR	Glass Formers Reagent System
BSA	Breathing Service Air System
SCE	Security Electrical System

If BNI determines that one or more of the listed systems are not required, notification and justification will be provided to DOE for review and concurrence.

Inclusions

- All systems necessary to operate LAW in support of DFLAW operations.

Exclusions

- All systems and components not required for DFLAW operations
- B Punch List items accepted by Plant Ops acceptance of the systems.

Objective Evidence of Milestone Completion and Key Predecessors

This milestone shall be considered complete upon completion of individual system and component testing and turnover, and acceptance of all systems necessary for DFLAW operation to Commissioning and Operations in accordance with procedure 24590-WTP-GPP-MGT-042 (as amended). Compliance with procedure GPP-MGT-042 will be demonstrated through delivery of Contractor certification and reference to complete turnover records. DOE oversight will validate the contractor's assessment.

DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, Table B-2-F.

Startup component and system testing includes all work defined through completion of the following activities:

Activity ID	Activity Name
5HLC106580	LAW - SU Component & System Testing - GRE
5HLC107380	LAW - SU Component & System Testing - SND
5HLC106420	LAW - SU Component & System Testing - DCE
5HLC106540	LAW - SU Component & System Testing - FPW
5HLC107060	LAW - SU Component & System Testing - MVE
5HLC107100	LAW - SU Component & System Testing - NLD
5HLC106200	LAW - SU Component & System Testing - ASJ
5HLC106520	LAW - SU Component & System Testing - FNJ
5HLC107040	LAW - SU Component & System Testing - MHJ
5HLC107120	LAW - SU Component & System Testing - PCJ
5HLC106620	LAW - SU Component & System Testing - HTE
5HLC106260	LAW - SU Component & System Testing - C1V
5HLC107000	LAW - SU Component & System Testing - LVE
5HLC107160	LAW - SU Component & System Testing - PPJ
5HLC106980	LAW - SU Component & System Testing - LTE
5HLC107180	LAW - SU Component & System Testing - PSA
5HLC106640	LAW - SU Component & System Testing - ISA
5HLC107200	LAW - SU Component & System Testing - PSW
5HLC106460	LAW - SU Component & System Testing - DOW
5HLC106600	LAW - SU Component & System Testing - HPS
5HLC106500	LAW - SU Component & System Testing - FDE
5HLC107400	LAW - SU Component & System Testing - UPE
5HLC106920	LAW - SU Component & System Testing - LPS
5HLC106440	LAW - SU Component & System Testing - DIW
5HLC107320	LAW - SU Component & System Testing - SCW
5HLC106360	LAW - SU Component & System Testing - CHW
5HLC106180	LAW - SU Component & System Testing - ARV
5HLC106340	LAW - SU Component & System Testing - CDG
5HLC106160	LAW - SU Component & System Testing - AMR
5HLC106320	LAW - SU Component & System Testing - C5V
5HLC106220	LAW - SU Component & System Testing - ASX
5HLC106720	LAW - SU Component & System Testing - LFH1
5HLC106300	LAW - SU Component & System Testing - C3V
5HLC106800	LAW - SU Component & System Testing - LMH
5HLC107080	LAW - SU Component & System Testing - MXG
5HLC106740	LAW - SU Component & System Testing - LFH2
5HLC107360	LAW - SU Component & System Testing - SHR
5HLC106960	LAW - SU Component & System Testing - LSH
5HLC107240	LAW - SU Component & System Testing - RLD
5HLC106940	LAW - SU Component & System Testing - LRH
5HLC107220	LAW - SU Component & System Testing - PTJ

Activity ID	Activity Name
5HLC106380	LAW - SU Component & System Testing - CME
5HLC106280	LAW - SU Component & System Testing - C2V
5HLC106660	LAW - SU Component & System Testing - LCP1
5HLC107280	LAW - SU Component & System Testing - RWH
5HLC106680	LAW - SU Component & System Testing - LCP2
5HLC107020	LAW - SU Component & System Testing - LVP
5HLC106700	LAW - SU Component & System Testing - LEH
5HLC107140	LAW - SU Component & System Testing - PCW
5HLC107340	LAW - SU Component & System Testing - SDJ
5HLC106760	LAW - SU Component & System Testing - LFP1
5HLC106820	LAW - SU Component & System Testing - LMP1
5HLC106860	LAW - SU Component & System Testing - LOP1
5HLC106900	LAW - SU Component & System Testing - LPH
5HLC107260	LAW - SU Component & System Testing - RPJ
5HLC106400	LAW - SU Component & System Testing - CPE
5HLC106480	LAW - SU Component & System Testing - EMJ
5HLC106780	LAW - SU Component & System Testing - LFP2
5HLC106880	LAW - SU Component & System Testing - LOP2
5HLC106840	LAW - SU Component & System Testing - LMP2
5HLC106560	LAW - SU Component & System Testing - GFR
5HLC106240	LAW - SU Component & System Testing - BSA
5HLC107300	LAW - SU Component & System Testing - SCE
5HLC107600	LAW - SU Component & System Testing Complete

Milestone

Interim Milestone B-4, Commission LBL in the DFLAW Configuration Performance Based Incentive Fee

Facility	Activity ID	Description
EMF	5HBDL8530	EMF Startup Testing Complete

Milestone Definition

Component and system testing within the scoped system boundaries of the Effluent Management Facility (EMF) is complete and the EMF systems have been accepted by plant operations.

Systems that will be tested to demonstrate EMF startup testing complete include the following:

GRE	Grounding & Lightning Protection Electric System
FPW	Fire Protection Water System
CME	Communications Electrical System
HTE	Heat Trace Electrical System
LTE	Lighting Electrical System
FDE	Fire Detection and Alarm System
ISA	Instrument Air System
DOW	Domestic (potable) Water System
HPS	High Pressure Steam System
LPS	Low Pressure Steam System
DIW	Demineralized Water System
AFR	Anti-foam Reagent System
DEP	DFLAW EMF Process System

If BNI determines that one or more of the listed systems are not required, notification and justification will be provided to DOE for review and concurrence.

Inclusions

N/A

Exclusions

- B Punch List items accepted by plant operations acceptance of the system.

Objective Evidence of Milestone Completion and Key Predecessors

This milestone shall be considered complete upon completion of individual system and component testing and turnover, and acceptance of all systems necessary for DFLAW operation to Commissioning and Operations in accordance with procedure 24590-WTP-GPP-MGT-042 (as amended). Compliance with procedure 24590-WTP-GPP-MGT-042 will be demonstrated through delivery of Contractor certification and reference to complete turnover records. DOE oversight will validate the contractor’s assessment.

DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, Table B-2-F.

Startup component and system testing includes all work defined through completion of the following activities:

Activity ID	Activity Name
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5HBDFL7950	BOF - SU - EMF - Component & System Testing (FNM) - GRE
5HBDFL8190	BOF - SU - EMF - Component & System Testing (FNM) - FPW
5HBDFL7910	BOF - SU - EMF - Component & System Testing (FNM) - CME
5HBDFL7970	BOF - SU - EMF - Component & System Testing (FNM) - HTE
5HBDFL7990	BOF - SU - EMF - Component & System Testing (FNM) - LTE
5HBDFL8090	BOF - SU - EMF - Component & System Testing (FNM) - FDE
5HBDFL7630	BOF - SU - EMF - Component & System Testing (FNM) - ISA
5HBDFL7690	BOF - SU - EMF - Component & System Testing (FNM) - DOW
5HBDFL7530	BOF - SU - EMF - Component & System Testing (FNM) - HPS
5HBDFL7550	BOF - SU - EMF - Component & System Testing (FNM) - LPS
5HBDFL7670	BOF - SU - EMF - Component & System Testing (FNM) - DIW
5HBDFL7710	BOF - SU - EMF - Component & System Testing (FNM) - AFR
5HBDFL7730	BOF - SU - EMF - Component & System Testing (FNM) - DEP
5HBDFL8530	BOF - SU - EMF - Component & System Testing (FNM)

Milestone

Interim Milestone B-5, Commission LBL in the DFLAW Configuration Performance Based Incentive Fee

Facility	Activity ID	Description
LAB	5HTC3JA00410	LAB Readiness to Operate

Milestone Definition

Complete activities necessary to demonstrate readiness to operate of the Analytical Laboratory (LAB) by completing the closure of all pre-start findings from the Contractor Ready to Operate Assessment of the LAB facility. Additional activities to be completed include the following as needed to support the Contractor Ready to Operate Assessment of the LAB facility as needed for DFLAW:

- Complete LAB-Ops-Conduct Chemical Management Assessment
- Complete LAB-Ops-Conduct Onsite Methods Validation Sealed Sources

Inclusions

N/A

Exclusions

- Post-start findings.

Objective Evidence of Milestone Completion and Key Predecessors

Documentation of closure of all pre-start findings from the Contractor Ready to Operate Assessment through the Contractor’s Corrective Action Management Program system. DOE oversight will validate the contractor’s assessment.

DOE shall provide concurrence regarding the acceptability of the submission of the Contractor’s Declaration of Readiness to operate the LAB or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, Table B-2-F.

Activity ID	Activity Name
5HTC3JA0039	LAB-Ops-Conduct Chemical Management Assessment
5HTC3JA0040	LAB-Ops-Conduct Onsite Methods Validation Sealed Sources

Milestone

Interim Milestone B-6 Commission LBL in the DFLAW Configuration Performance Based Incentive Fee

Facility	Activity ID	Description
LAW	5HLC3JA00371	LAW DOE Headquarters ORR complete

Milestone Definition

Completion of the DOE Operational Readiness Review (ORR) and issuance of the DOE ORR Action Closure report, including closure of all pre-start findings, Activity ID 5HLC3JA00371 and receipt of approval from the startup authorization authority.

Key supporting activities that will be completed prior to the commencement of the DOE ORR, include:

- Pre-cold commissioning management assessment.
- The LAW Vitrification Facility shall be operated continuously for two (2) five (5)-day cold commissioning tests. If subsequent five (5)-day test(s) are required, the timing of the test(s) shall be agreed upon by both the DOE and the Contractor.
- LAW environmental performance test.
- Contractor ORR and closure of pre-start findings.

Inclusions

- Scope, breadth, and depth of ORR will be defined in the approved Startup Notification Report and the ORR plan of action
- Reference B.11 (d)(1) Fee Risk Allocation, Regulatory Actions.

Exclusions

N/A

Objective Evidence of Milestone Completion and Key Predecessors

Receipt of permission to commence hot commissioning from the DOE Authorization Authority.

Milestone

Milestone B-7 Milestone Successful Demonstration of Hot Commissioning Performance Based Incentive

Facility	Activity ID	Description
DFLAW	5HLC3JA00401	Successful Demonstration of Hot Commissioning

Milestone Definition

Successful demonstration of LAW Vitrification Facility hot commissioning milestone shall be considered accomplished when Contract Deliverable 5.15, “Certification of Demonstration of Hot Commissioning,” is approved by DOE.

Additional support activities that will be completed prior to the submittal of the certification of hot commissioning include:

- Completion of cold commissioning testing;
- Completion of transfer line tie-in between WTP and Tank Farm Operator;
- Tank Farm Operator completes first batch;
- Completion of waste acceptance for first batch of tank waste;
- Submission of an engineering evaluation establishing the number of ILAW containers required to displace nonradioactive simulants with LAW pretreatment system feed in ILAW product glass; and
- Produce compliant ILAW product as follows:
 - Exceeds minimum waste loading as defined in the Contract for the DFLAW waste stream in accordance with Section C(8), Specification 2
 - Demonstrates conformance with ICD 15.

Inclusions

N/A

Exclusions

N/A

Objective Evidence of Milestone Completion and Key Predecessors

Deliverable – A Certification of successful demonstration of Hot Commissioning has been approved by DOE.

DOE shall provide approval of the submission or provide notice of material deficiencies within thirty (30) calendar days of receipt. In the event DOE provides notice of material deficiencies after thirty (30) calendar days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Section B, Table B-2-F.

Objective Evidence of Milestone Completion and Key Predecessors

Activity ID	Description
5HLC3JA00340	Cold Commissioning Testing Complete
5HLC3JA00380	Transfer line Tie-in
5HLC3JA00382	TOC First Batch
5HLC3JA00390	LAW Hot Commissioning
5HLC3JA00400	Prepare and Submit Certification of Hot Commissioning Completion

**SECTION J – LIST OF ATTACHMENTS
ATTACHMENT Q
DFLAW DESIGN COMPLETION CRITERIA INCENTIVE DEFINITIONS**

The DFLAW design effort in CLIN 2.1 consists of several fee incentives as outlined in Section B.5. This attachment contains the completion criteria for these fee incentives.

DFLAW Design Completion Cost Incentive Fee

The DFLAW Design Completion Incentive Fee consists of two components. A Schedule Incentive Fee, which can adjust the final Cost Incentive Fee calculation positively for early completion or negatively for late completion and a Cost Incentive Fee, which is determined at the completion of the effort as defined herein.

The schedule completion incentive/disincentive fee of this milestone is calculated by the completion of the Section 1 Major Scope Elements established in the Milestone Definition Sheet (DF-01). The target schedule completion is April 30, 2018. Calculation of any Cost Incentive Fee adjustments associated with the schedule performance shall be based on this target date. See Section B, Attachment B-2-H, Table B-2-H-1 CLIN 2.1 DFLAW Design Completion Fee for the Schedule Incentive Fee details.

Cost performance for DFLAW Design Completion will be measured by the cumulative costs associated with the performance of the Major Scope Elements and the Residual Scope Elements established in the Milestone Definition sheet for DFLAW Design Completion. The Cost Incentive Fee shall be determined once the combined scope elements have been completed and a “Declaration of Completion” package has been prepared by the Contractor and approved by DOE as outlined in Section B, Attachment B-2-H. Evidence of completion of the activities defined in the Milestone Definition Sheet (DF-01) shall be provided for verification.

DFLAW Interim Milestone Completion

The DFLAW Interim Milestone Completion Incentive Fee consists of two distinct components. These components are “EMF Hazard Analysis and 30% Design Review” (DF-02) and “DFLAW Safety Basis Change Package” (DF-03) and are defined in the Interim Milestone definition sheets contained herein. The Contractor shall prepare and submit a Declaration of Completion to DOE for determination of the final fee paid for these Interim Milestones as outlined in Section B, Attachment B-2-H. The fee for these Interim Milestones will be earned and payable when the Contracting Officer determines the milestone has been completed as described in the milestone definition sheets DF-02 and DF-03 contained in this Attachment Q.

Milestone

DF-01, Cost Incentive Milestone Definition Sheet

WTP Contract No. DE-AC27-01RV14136

Facility	Activity ID	Description
DFLAW		CLIN 2.1 DFLAW Design Completion

Milestone Definition

Completion of major design activities contained in Section 1 progresses the major design elements to a committed status that supports a bid for procurement and construction of the DFLAW project, and constitutes completion of the schedule incentive/disincentive portion of the DFLAW Design Completion fee. Completion of the Residual Scope Elements in Section 2, and Section 3 defines objective evidence for completion of CLIN 2.1 design for the purposes of calculating the Cost Incentive Fee as set forth in Section B-2-H.

Section 1: Major Design Elements

- System Design Description/Facility Design Description
- Final Process Flow Diagrams
- Heat and Material Balance
- Major Equipment Lists
- Instrumentation Specifications
- Major System Calculations
- Major System Specifications and Data sheets
- Piping and instrumentation diagrams (P&ID)/Line and valve lists
- Ventilation and instrumentation diagrams and lists
- Plant layout design detailed planning (3D model)
- Detailed Piping Design
- Stress and Support design
- Architectural Design Renderings, Layouts, details and schedules
- Structural/Foundation Design Concrete
- Structural/Foundation Design Steel
- Civil Design drainage, grading, paving underground
- Radiation Safety Design Criteria
- Fire Analysis

Section 2: Residual Scope Elements

- Arc Flash Calculations
- Final Termination Schedules
- Software Requirements
- Final Instrument Index
- Functional Acceptance Testing (Operations and Engineering Testing)
- Develop ICN Simulator Software for LAW/EMF
- Final Public Reviews/Permitting – operating and final installation permit for DWP equipment in EMF (evaporator and tanks)
- Management of Acquired Software. IT-14 is the old procedure for software quality and putting software on the baseline, this procedure will be replaced with a new engineering procedure.

Section 3: Objective Evidence of Milestone Completion and DFLAW Activity ID Key Predecessors

Completion of this milestone shall be measured by submittal of a “Declaration of Completion” (DOC) package by BNI. Separate DOC packages shall be submitted for the Schedule and Cost components of this milestone

supported by evidence of completion. The Schedule DOC package shall include evidence of completion of the Major Design Elements defined in Section 1. The DOC package for the cost component of this milestone shall include evidence of completion of Scope elements defined in Sections 1 and 2 to a confirmed status. The Cost DOC submittal shall include the following elements of work:

- Engineering report for DFLAW scope with confirmed calculations and drawings.
- Confirmed specifications and datasheets,
- Initial issuance of the preliminary fire hazard analysis.

The following list of Key Predecessors will be completed:

Activity ID	Description	Activity ID	Description
3ED90BODCN	EMF - E1 - BODCN Completion	3ED900011	EMF - E1 - Perform 30% Review
3ED900025	EMF - E1 - DFLAW - ICD 30		
3ED900026	EMF - E1 - DFLAW - ICD 31	3ED4800008	EMF - EN - Issue Water DIW / DOW / PCW/PSW P&IDs & Lists - Rev 0
3ED900027	EMF - E1 - DFLAW - ICD 6	3ED4800009	EMF - EN - Issue Air BSA/ISA/PSA P&IDs & Lists - Rev 0
3ED4800004	EMF - EN - Issue Drains / Vents / Interfaces P&IDs & Lists - Rev 0	3ED4800006	EMF - EN - Issue Steam LPS / HPS / SCW P&IDs & Lists - Rev 0
3ED4800014	EMF - EN - Issue Evaporator P&IDs & Lists - Rev 0	3ED2700017	EMF - EH - Issue Fire Protection P&ID (1) - Rev 0
3ED4800017	EMF - EN - Issue Major Water DIW / DOW / PCW / PSW Equipment Datasheets - Rev 0	3ED4800118	EMF - EN - Issue Major Air BSA/ISA/PSA Equipment Datasheets - Rev. 0
3ED4800114	EMF - EN - Issue Evaporator Equipment Datasheets - Rev. 0	3ED4800115	EMF - EN - Issue Major Drains/Vents/Interfaces Equipment Datasheets Rev. 0
3ED4800116	EMF-EN-Issue Major Equipment Datasheets to Support Permitting -Rev. 0	3ED1700108	EMF - EJ - Develop and Issue HVAC and Fire Protection Instruments Data Sheets Rev. 0
3ED1700069	EMF - EJ - Develop and Issue Steam LPS/HPS/SCW Instruments Data Sheets Rev. 0	3ED1700042	EMF - EJ - Develop and Issue Water DIW/DOW/PCW/PSW Instruments Data Sheets Rev. 0
3ED1700086	EMF - EJ - Develop and Issue Air BSA/ISA/PSA Instruments Data Sheets Rev. 0	3ED1700081	EMF - EJ - Develop and Issue Evaporator Instruments Data Sheets Rev. 0
3ED1700098	EMF - EJ - Develop and Issue Drains Instruments Data Sheets Rev. 0	3ED1700042	EMF - EJ - Develop and Issue Water DIW/DOW/PCW/PSW Instruments Data Sheets Rev. 0
3ED4800118	EMF - EN - Issue Major Air BSA/ISA/PSA Equipment Datasheets - Rev. 0	3ED4800115	EMF - EN - Issue Major Drains/Vents/Interfaces Equipment Datasheets Rev. 0
3ED4800116	EMF - EN - Issue Major Equipment Datasheets to Support Permitting - Rev. 0	3ED4800114	EMF - EN - Issue Evaporator Equipment Datasheets - Rev. 0
3ED1700069	EMF - EJ - Develop and Issue Steam LPS/HPS/SCW Instruments Data Sheets Rev. 0	3ED1700086	EMF - EJ - Develop and Issue Air BSA/ISA/PSA Instruments Data Sheets Rev. 0

Milestone

DF-02, Interim Milestone Definition Sheet

WTP Contract No. DE-AC27-01RV14136

Facility	Activity ID	Description
EMF	3ED900011	EMF Hazard Analysis and 30% Design Review

Milestone Definition

Thirty percent (30%) Design Review will use the process as defined in procedure 24590-WTP-GPG-ENG-050 (3D Model Review/Freeze). A design review plan will be prepared, submitted, and approved at least five (5) working days prior to conducting the review. This plan will include objectives, scope of review, documents to be reviewed, method(s) for conducting the review, and methods to resolve any identified issues. The expectation of the process is to finalize and approve (freeze) the design and 3D model, and ensure inter-discipline/functional coordination.

Model review participants are across all functions and disciplines and include the following:

- Engineering Design Agency (as a minimum this includes, civil/structural/architectural [CSA]; electrical; control and instrumentation [C&I]; mechanical; HVAC; fire protection; plant design)
- Engineering Design Authority (as a minimum this includes, Nuclear Safety, System Engineering, and Process Engineering)
- Nuclear Safety
- Environmental
- Industrial Hygiene
- Operations
- Plant Engineering
- Procurement
- Construction
- DOE.

Model review participants are expected to provide constructive input on the design of the commodities being reviewed relative to the following:

- Safety
- Quality
- Operability
- Maintainability
- Constructability
- Human factors
- Permitting requirements
- As Low As Reasonably Achievable (ALARA) principles.

The following related activities will be fundamentally complete before a thirty percent (30%) Design Reviews is commenced:

- BOD requirements are defined
- Hazards to system operation have been preliminarily identified and mitigation strategies defined
- Major equipment and systems are identified.

Requirements

- Preliminary System Design Description, Part 1 (not issued)
- Preliminary Facility Design Description (not issued).

Basis of Design

- System Requirements Document
- Design Criteria
- Code of Record
- Scope of Facilities
- Operations and Maintenance Requirements.

Nuclear Safety

Preliminary hazard analysis, accident analysis, and control selection

Technical Issues – Identified

- Preliminary Functional Requirements
- Preliminary TSRs
- Preliminary Radiation Zone Maps
- Preliminary Shielding Criteria.

Process Engineering

Establish BOD and identify applicable codes and standards

- Process Analysis Model > ninety (90) percent
- Waste streams identified
- Input Basis of Design > ninety (90) percent
- Revision A Process Flow Diagrams
- Revision A Mass Balance.

Mechanical Systems, including Mechanical Handling and Fire Protection

Establish basis for design and identify applicable codes and standards

- Preliminary Calculations
- Preliminary P&IDs
- Preliminary System Flow Diagrams
- Preliminary Mechanical Line, Valve & Equipment Lists
- Preliminary Mechanical Handling Drawings
- Preliminary Mechanical Sequence Drawings
- Preliminary MR/Spec/Datasheets for Long Lead Procurements.

HVAC

Establish basis for design and identify applicable codes and standards

- Preliminary Calculations
- Preliminary Ventilation Flow Diagrams
- Preliminary ventilation and instrumentation diagrams
- Preliminary Heating/Cooling Loads
- Preliminary Equipment List
- Preliminary Duct Routing (major runs)
- Preliminary Material Requisition/Specification/Datasheets for Long Lead Procurements
- Preliminary Electrical Power (Equipment Loads & Duty)
- Preliminary Heat Generated by Equipment
- Preliminary Air Flow/Cooling Needs for Equip
- Preliminary Compressed Air/Gases.

CSA

Establish basis for design and identify applicable codes and standards

- Preliminary Structural Model Complete
- Preliminary Structure Framing Plans/Sections
- Preliminary Concrete drawings
- Preliminary Calculations
- Preliminary Plot Plan
- Preliminary Drainage Plan
- Preliminary Plans, Sections, Elevations
- Preliminary Architectural Details
- Preliminary Architectural Schedules.

Plant Design

- Major Commodities – thirty (30) percent of Budget Quantities In the Model
- Major Process and HVAC Equipment Modelled
- Space Allocation Plan Implemented
- Preliminary General Arrangement Drawings
- Preliminary Building Plumbing and Drains
- Preliminary HVAC Orthographic Drawings
- Preliminary Piping Specifications
- Preliminary Piping Class Sheets.

Electrical

Establish basis for design and identify codes and standards

- Preliminary Calculations
- Preliminary One-Line Diagram
- Preliminary Electrical Load Summary
- Preliminary Power Distribution System Layout (Load Centers, Switchgear, MCCs, Panel Boards)
- Preliminary MR/Spec/Datasheets for Long Lead Procurements.

Controls and Instrumentation

Establish basis for design and identify applicable codes and standards

- Preliminary Calculations
- Preliminary Control Strategy
- Preliminary Control Requirements (manual, semi, automatic)
- Preliminary Communication protocol
- Preliminary Security, data storage, retrieval and security
- Reliability, Availability, Maintainability (RAM) parameters identified for key systems
- Preliminary MR/Spec/Datasheets for Long Lead Procurements.

Other

- Issued for use Interface Control Documents (ICD)
- Preliminary Material Assignment Schedule (MAS).

Inclusions

N/A

Exclusions

N/A

Objective Evidence of Milestone Completion and DFLAW Activity ID Key Predecessors:

Objective Evidence

The thirty (30) percent design review will be documented by issuing an engineering report containing the associated EMF hazard analysis. The report will describe the status of the design; address each design, safety basis, and operating and maintenance requirement including design and safety margins and capability to comply with WTP Contract technical and quality requirements. The report shall resolve issues identified by DOE and the Contractor staff during the review. The report will identify open issues and unverified assumptions requiring closure as design matures. These actions and items that are not incorporated will be tracked in an action tracking system. This interim milestone will be considered complete upon submission by the Contractor to DOE, subject to concurrence by DOE within ten (10) days of receipt.

Key Predecessors

Activity ID	Description	Activity ID	Description
3ED900025	EMF - E1 - DFLAW - ICD 30	3ED4700003	EMF – EB – Develop Process Flow Diagrams - Committed
3ED900026	EMF - E1 - DFLAW - ICD 31	3ED1000005	EMF – E2 – Prepare BODCN
3ED900027	EMF - E1 - DFLAW - ICD 6	3ED4700001	EMF – EB – Develop Process Committed Calculations – Equipment Design
3ED4800004	EMF - EN - Issue Drains / Vents / Interfaces P&IDs & Lists - Rev 0	7KLDFL327	DFLAW Hazard Analysis

Milestone

DF-03 Interim Milestone Definition Sheet

WTP Contract No. DE-AC27-01RV14136

Facility	Activity ID	Description
EMF		DFLAW Safety Basis Change Package (PDSA)

Milestone Definition

Prepare and issue the DFLAW EMF Safety Basis Change Package (SBCP)/PDSA update as an addendum to the LAW PDSA. Submit the SBCP/PDSA to DOE.

Inclusions

N/A

Exclusions

N/A

Objective Evidence of Milestone Completion and Key Predecessors

This milestone shall be considered complete upon the submission of the SBCP/PDSA to DOE. DOE shall provide concurrence regarding the acceptability of the submission or provide notice of material deficiencies within ten (10) working days of receipt. In the event DOE provides notice of material deficiencies after ten (10) working days, the Contractor shall be granted day for day relief to the schedule decrement outlined in Table B-2-H-1.

DOE shall provide approval of the SBCP/PDSA within ninety (90) days of accepted submission.

Key Predecessors

Activity ID	Description	Activity ID	Description
7KLDFL327	DFLAW Hazard Analysis		
7KLDFL3430	DFLAW PDSA		

**SECTION J – LIST OF ATTACHMENTS
ATTACHMENT R
PERFORMANCE EVALUATION AND MEASUREMENT PLAN**

**PERFORMANCE EVALUATION AND
MEASUREMENT PLAN**

Incentive B – Award Fee

**DESIGN, CONSTRUCTION, AND COMMISSIONING OF THE
HANFORD TANK WASTE TREATMENT AND
IMMOBILIZATION PLANT**

CONTRACT NO. DE-AC27-01RV14136

**Evaluation Period 2019
January 1, 2019, to December 31, 2019**

**Bechtel National, Inc.
Richland, Washington
Rev. 2 – Effective January 1, 2019**



Issued By:

Handwritten signature of Brian T. Vance in blue ink.

Brian T. Vance
Manager, DOE Office of River Protection
Fee-Determining Official

Handwritten signature of Valerie McCain in blue ink.

Valerie McCain
Project Director
Bechtel National Inc.

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A. AWARD FEE OBJECTIVES

This Performance Evaluation Measurement Plan (PEMP) contains the following six award fee objectives:

1. Project performance
2. Environmental, safety, health, and quality assurance (QA)
3. One System, direct-feed low-activity waste (DFLAW) integration
4. Engineering, procurement, and construction
5. Startup and commissioning
6. High-Level Waste (HLW) and Pretreatment facilities.

A.1 EVALUATION PROCESS

The U.S. Department of Energy (DOE), Office of River Protection (ORP) will evaluate and measure performance for each of the six award fee objectives on a quarterly basis. The contractor will provide a summary of the effectiveness of its Contractor Assurance System to ORP to support the quarterly evaluations. DOE will identify Bechtel National, Inc.’s performance strengths and weakness at the end of each of the four quarters, year-to-date for each of the award fee objectives. DOE will assign adjectival ratings only at the end of the fourth quarter. The adjectival ratings for each of the award fee objectives will be based on the entire year’s performance (see Table 1, “Award Fee – Incentive Ratings and Definitions”).

Table 1. Award Fee – Incentive Ratings and Definition. (2 pages)

Adjectival Rating	Definition	Percentage of Award Fee Earned
Excellent	Contractor has exceeded almost all of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award fee evaluation period.	91% to 100%
Very Good	Contractor has exceeded many of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award fee evaluation period.	76% to 90%
Good	Contractor has exceeded some of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award fee evaluation period.	51% to 75%
Satisfactory	Contractor has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award fee evaluation period.	≤ 50%

Table 1. Award Fee – Incentive Ratings and Definition. (2 pages)

Adjectival Rating	Definition	Percentage of Award Fee Earned
Unsatisfactory	Contractor has failed to meet overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award fee evaluation period.	0%

A.2 AWARD FEE DETERMINATION

Award fee dollars earned are determined by the method presented in Table 2, “Award Fee – Fee Earnings Calculations.” The adjectival ratings are as determined in Section A.1 above. The Fee Determining Official (FDO) will determine the percent of fee earned according to the ranges in Table 1 above. The award fee dollars earned will be the product of the award fee available and the percent of award fee earned. The FDO may consider any other pertinent factors in making a final fee determination,

Table 2. Award Fee – Fee Earnings Calculation.

Award Fee Objective	Award Fee Available	Adjectival Rating	Percentage of Award Fee Earned	Award Fee Dollars Earned
1 Project Performance	\$2M			
2 Environmental, Safety, Health, and Quality Assurance	\$2.1M			
3 One System – Direct-Feed Low-Activity Waste Integration	\$272,603			
4 Engineering, Procurement, and Construction	\$1M			
5 Startup and Commissioning	\$2M			
6 High-Level Waste and Pretreatment	\$500K			

A.3 AWARD FEE OBJECTIVE 1: PROJECT PERFORMANCE

ORP will evaluate the contractor’s cost and schedule performance based upon actual incurred costs compared to the total estimated costs of that work and actual schedule performance as compared to the planned schedule.

The analysis of project performance will give consideration to changed programmatic requirements, changed statutory requirements, and/or changes beyond the contractor’s control, which impact cost and/or schedule. ORP will rely on other objective and/or subjective cost and

schedule performance elements, such as critical path and float analysis, to evaluate the contractor's performance, which includes, but is not limited to the following:

- Contractor Assurance System – Contractor is self-critical in assessment of performance, actions are implemented in a timely manner and tracked to completion, and progress towards performance objectives are measured and new actions are taken as needed to achieve target performance objectives.
- Cost Control – The contractor maintains cost control (i.e., actual costs incurred for work performed are equal to or less than the planned costs for that work) and actively pursues cost containment and reduction through innovative approaches and management of resources. Cost control will be monitored against the Performance Measurement Baseline for the Low Activity Waste (LAW) Facility, Balance of Facilities, and Analytical Laboratory (collectively LBL) / DFLAW.
- Schedule Control – The contractor maintains a contract compliant, resource loaded, logic-tied schedule with discrete tasks through contract completion, including credible and accurate critical path network(s) that accurately portray critical work activities toward meeting the contract milestone date for demonstration of DFLAW hot commissioning and implements innovative actions to accelerate the overall project schedule with due consideration to the overall risk profile.
- Communication – The contractor is expected to be transparent and communicate clearly and effectively for the reporting of data and metrics. In addition, it is expected that the Contractor works proactively with the ORP communications division to support enhanced communications with all key stakeholders.
- Risk Management – The contractor identifies new threats, opportunities, and risk closures to demonstrate an effective risk program. Risks shall be identified early to maximize risk mitigation and risks shall be tracked, managed, and monitored using the Waste Treatment and Immobilization Plant (WTP) Risk Register Database until mitigated to the maximum extent practical, avoided, or accepted in accordance with formal program requirements. Risk effectiveness shall be reported on for closed threats, open threats, and opportunities realized.
- Available Funding Utilization – The contractor optimizes utilization of funds while planning for an appropriate amount of carryover to cover outstanding year-end commitments and to provide for the first few weeks of continuing operations into the next fiscal year.
- Baseline and Contract Alignment – The contractor shall maintain alignment between the baseline and the contract. The contractor shall submit quality documents as required to support the alignment between the baseline and the contract and to support independent reviews.
- Subcontractor Incurred Cost Audits – The contractor will complete a minimum of 15 subcontractor incurred cost audits to standard.

A.4 AWARD FEE OBJECTIVE 2: ENVIRONMENTAL, SAFETY, HEALTH, AND QUALITY ASSURANCE

ORP will assess this award fee objective in the areas of environmental permitting and compliance; nuclear safety; quality assurance (QA); safety, health, and quality programs; and Contractor Assurance System.

Environmental Permitting and Compliance

Evaluations of the Contractors performance will be based on:

- Maintain a constructive and effective working relationship with all regulatory agencies to maximize the probability of successful delivery of the DFLAW program.
- Development and implementation of an integrated environmental protection program that applies best commercial practices and assures compliance with environmental requirements.
- Development of required applications for permits; licenses; and other regulatory approvals required for design, construction, and commissioning of WTP. Contractor will integrate with other Hanford contractors to provide data for site wide regulatory monitoring and reporting. Contractor will assess and track environmental performance. Contractor's work shall be accomplished in a manner that achieves high levels of quality, and protects the environment, workers, and the public.
- ORP will rely on evaluations of the contractor's performance in areas that include but are not limited to quality and timeliness of permit applications and other deliverables required to support project execution, proactive assessment of the environmental protection program, efforts to continuously improve, and regulatory compliance - including the number and seriousness of any findings or concerns.
- Submittal of permitting products with a high degree of quality and which enable schedule efficiencies. Specific deliverables that will be evaluated are:
 - Dangerous waste permit Class 3 modification to ORP for operation of WTP in the DFLAW configuration.
 - Preliminary risk assessment dangerous waste permit agency initiated modification to ORP for WTP in the DFLAW configuration.
 - Final issuance of Effluent Management Facility/ LAW Facility/Analytical Laboratory (LAB) radioactive air operating permit by the Washington State Department of Health.
 - Steam plant boiler performance test results to ORP for transmittal to the Washington State Department of Ecology.
 - Standby diesel generator performance test results to ORP for transmittal to Washington State Department of Ecology.
 - Preoperational ambient air monitoring data to ORP for transmittal to Washington State Department of Health.

- LAB construction certification to ORP for transmittal to Washington State Department of Ecology.

Nuclear Safety

The WTP Contract, Section C, “Statement of Work,” Standard 9, “Nuclear Safety (Table C.5-1.1, Deliverable 9.1),” describes contractor requirements to ensure radiological, nuclear, and process safety. This work scope includes implementation of a standards-based safety management program in compliance with the rules provided in 10 CFR 830, “Nuclear Safety Management,” on nuclear safety to ensure WTP safety requirements are defined, implemented, and maintained.

Evaluation criteria to measure performance will include ORP’s evaluation of the contractor’s progress toward and compliance with contract requirements for nuclear safety performance. Progress will be evaluated against interim project schedules for nuclear safety submittals and supporting documentation (e.g., hazards analyses) with consideration of any emerging issues. Compliance will be evaluated against guidance found in DOE-STD-3009-1994, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*, Chg. 3 as well as all other contract requirements and formal clarifying direction from ORP.

ORP-WTP will consider any available information bearing on nuclear safety performance in making this evaluation. Documents to be considered include:

- Draft nuclear safety deliverables submitted for informal review possess a high degree of quality, and meet the requirements defined in the implementation plan for Contract Standard 9. Acceptable quality to be determined through use of existing quality engineering metrics for in-process documents.
- Nuclear safety calculations and engineering studies developed to support resolution of technical issues will possess a high degree of quality and will meet the requirements defined in the implementation plan for Contract Section C, Standard 9 for submittal of draft documents for informal review.
- Effectiveness in self-identifying nuclear safety concerns early and responding to concerns raised both internally and by external stakeholders and review teams.
- Progress toward interim project schedules and milestones while completing the conditions of approval documented in the Safety Evaluation Report for the LAW DSA (18-NSD-0009, “Contract No. DE-AC27-01RV14136 – Approval of 24590-LAW-DSA-NS-18-0001, “Documented Safety Analysis for the Low-Activity Waste Facility,” and 24590-LAW-TSR-NS-18-0001, “Low-Activity Waste Facility Technical Safety Requirements,”).
- Progress toward interim project schedules and milestones while producing a high quality hazard analysis report to support WTP LAB operations.
- Timeliness and effectiveness of corrective actions taken in response to findings from the fiscal year (FY) 2018 safety evaluation assessment (this includes effectiveness of metrics used to track the progress of corrective actions).

- Revise and issue 24590-WTP-3DP-G04B-00022, *Licensing Information*; 24590-WTP-3DG-W10T-00001, *WTP Nuclear Safety Analysis Design Guide*; and applicable desktop instructions to address corrective actions resulting from quality issues identified in 16-NSD-0026, “Contract No. DE-AC27-01RV14136 – Low-Activity Waste Process Hazards Analysis Report Quality Issues,” and to provide clear guidance on the mutually agreed upon level of detail required for hazard analysis to support an approvable preliminary documented safety analysis/document safety analysis.

Quality Assurance

The QA program and quality of performance objective will evaluate the contractor’s actions to strengthen the existing QA program, resolve QA issues, support the implementation of the commissioning and operations QA program, and improve the overall quality culture on the WTP Project.

ORP will perform both objective and subjective evaluations of the contractor’s efforts to:

- Resolve and complete actions to address all remaining QA War Room issues
- Demonstrate QA culture improvements (e.g., behavioral commitments to quality and effective use of QA issue resolution tools).
- Improve management of QA program requirements including the ability to demonstrate compliance with contractually imposed standards throughout all supporting program plans and specific implementing procedure elements or steps.
- Plan, schedule, and perform effective QA surveillances consistent with the contractor’s graded approach, including bias-based coverage for higher consequence processes and activities.
- Support the implementation of a commissioning and operations QA program.
- Continue to develop objective metrics and targets to assess the effectiveness of the QA program (not just the QA organization), including benchmarking of key functional areas. Measures reflecting significant rework should be included where available or otherwise developed.

Provide adequate records for work performed

Safety, Health, and Quality Programs

ORP will perform both objective and subjective evaluations of the contractor’s efforts to:

- Maintain an effective nuclear safety quality culture recognized by employees and stakeholders as sustaining a safety conscious work environment where safety, quality, or other concerns can be raised without fear of retaliation.
- Develop safety and health documents (e.g., plans, procedures, etc.) to support successful commissioning of DFLAW needed facilities.

- Demonstrate proactive monitoring of safety performance to systematically improve culture and processes.
- Implement an effective work hazard analysis and controls to reduce injury/illnesses and work place hazards.
- Implement actions to improve WTP Project safety based on analysis of work site conditions.

Contractor Assurance System

Measuring performance will include ORP's subjective and objective evaluation of the contractor's performance based on the following:

- Methods of monitoring and measuring performance, including metrics, assessments, surveillances, and other operational activities, are effectively used to provide an accurate representation of the current performance of mission objectives and goals, to include performance of a safety, health, environment, and quality program, relative to defined standards.
- Demonstrate that management system owners and levels of management are aware of applicable requirements and the status of compliance to those requirements.
- Demonstrate that risks to mission and operations are being effectively identified, monitored, communicated, and managed (i.e., accepted, avoided, or mitigated).
- Demonstrate a healthy self-critical approach to ensuring actions taken to manage risks or issues are appropriately effective.
- External independent evaluation of the Contractor Assurance System by entities such as corporate parent companies or other DOE sites.
- Timely, open, and continuous communication on mission and operations risks and issues with ORP.
- Lessons learned experiences and good practices are used to inform applicable organizations of adverse work practices or experiences and are incorporated into the overall work process to improve mission and operations performance.

A.5 AWARD FEE OBJECTIVE 3: ONE SYSTEM – DIRECT-FEED LOW-ACTIVITY WASTE INTEGRATION

ORP will assess this award fee objective in the following areas:

- Establish and maintain a constructive working relationship with all key interfacing organizations to maximize the probability of successful delivery of the DFLAW program.
- Establish and maintain One System Governance Council tools identifying, tracking, and communicating mitigation of DFLAW project threats, risks, opportunities, and barriers necessary to meet the contractual dates for startup and commissioning of the LBL facilities in the DFLAW configuration.

- Provide quality DFLAW integrated schedule data, including operational readiness planning and implementation, to the DFLAW program allowing the integration team to accurately track schedule performance and any schedule slippage by acting with urgency to raise issues to expedite issue resolution.
- Accurately identify and optimize interface services, usages, and timing. Effectively and efficiently implement interface requirements.
- Identify and utilize technical capabilities and resources, as appropriate, which support and respond to potential events that prevent demonstration of waste treatment capacity performance and steady state operations (e.g., national laboratory capabilities).

A.6 AWARD FEE OBJECTIVE 4: DFLAW DESIGN AND CONSTRUCTION

ORP will assess this award fee objective in the areas of Design and Construction performance based upon the following:

- Open action management – Enhance line management efforts in the disposition of open actions to drive certainty in the delivery of DFLAW facilities. Demonstrate enhanced tracking, prioritization, management, and work-off of open actions, including but not limited to nonconformance reports, action tracking system items, design completion actions, and requirements verification steps. Proactively define, capture, and manage open actions to closure and implement metrics to measure the effectiveness of action closure and resolution.
- Configuration management – Maintain the technical requirements management system including system design descriptions, and develop and maintain an adequate SmartPlant® system to support LBL system turnover.
- Design and engineering output – Issue adequate design and engineering products reflecting acceptable quality; manage margin; control unverified assumptions; and adequately flow down requirements to calculations, drawings, specifications, datasheets, and procurement documents. Acceptable quality to be demonstrated through use of existing quality engineering metrics for in-process document reviews.
- Safety systems design – Demonstrates significant progress in the implementation of DOE-STD-1195-2011, *Design of Safety Significant Safety Instrumented Systems Used at DOE Nonreactor Nuclear Facilities*, towards completion of safety instrumented systems design for the LAW Facility. Progress is measured by fidelity to DOE-STD-1195-2011 requirements; against planned activities scheduled and the progress for those activities. Activities will include issuance of:
 - 24590-WTP-3DI-G04T-00005, *Engineering Instruction Functional Safety Assessments*, Rev. 0
 - 24590-WTP-PL-MGT-15-0008, *Functional Safety Management Plan for Safety Instrumented Systems and Functions*, Rev. 1
 - Safety performance monitoring procedure(s)

- Safety systems requirements specifications as identified in the LAW Facility engineering schedule
- Safety set-point calculations as identified in the LAW Facility engineering schedule
- Probability of failure on demand calculations as identified in the LAW Facility engineering schedule.

In addition, ORP will be evaluating performance for continuous improvement in these areas, which includes, but is not limited to:

- Contractor self-reports events and their causes and implements effective corrective actions prior to recurrence of significant or consequential events.
- Responsiveness to and management of performance and assessment areas needing attention as identified by contractor self-assessments, ORP assessments, and minimal ORP rejection of corrective action plans.
- Deliver effective solutions within contractual, procedural, and/or DOE orders-specified timing to emerging WTP field and resident engineering issues as and when the need arises. Provide efficient and effective field and resident engineering support to WTP construction and turnover to startup. Monitor and continue to reduce design errors resulting in engineering or field rework. Key areas will include mechanical, civil, and electrical inspections.
- Facility status and event notifications are provided to the facility representatives in accordance with contractual, procedural, and/or DOE orders in an accurate manner. Major work in progress and in planning are communicated.
- Contractor processes for safe operations are implemented and effectively applied in operational, maintenance, and construction activities incorporating practices resulting in an effective hierarchy of controls being implemented to mitigate WTP hazards.
- Corrective actions are within contractual, procedural, and/or DOE orders specified timing, prioritized by importance and appropriately targeted to correct negative performance and prevent the development of significant issues. In the case of significant conditions adverse to quality, effective compensatory measures are implemented, causes of the condition are determined within contractual, procedural, and/or DOE orders specified timing, and corrective actions are taken to preclude recurrence.
- Ensure effective interfacing and interactions between construction, engineering, startup and commissioning, and plant management organizations to provide safe and efficient transition to operations.

A.7 AWARD FEE OBJECTIVE 5: STARTUP AND COMMISSIONING

ORP will assess this award fee objective in the areas of startup, commissioning and plant management, and readiness based on the following criteria.

Startup:

- Execution of turnover processes that are efficient and ensure systems are successfully turned over.
- Turnover from construction to startup completed with effective management of impacts from equipment aging or other adverse conditions impacting startup work performance.
- Successful performance of component and initial system testing, to include review and approval of component test result packages for scoped systems consistent with the BCP-18-0103 (October 2018) baseline schedule.
- Completion of the following specific activities and all predecessors:
 - Accept turnover of PVA-A-01 March 2019 (5HTDPVA2331)
 - LAW – Startup – LMH-L-01 system available for use May 2019 (5HLC2LMH100)
 - LAW – Startup – LSH-L-01 system available for use July 2019 (5HLC2LSH100)
 - Accept turnover of PPJ-L-01 September 2019 (5HLC1TOV800)
 - LAW – Startup – C2V-L-01 system available for use December 2019 (5HLC2C2V100)
 - Balance of Facilities – Startup component and system testing complete December 2019 (5HBC108240).

Commissioning and Plant Management:

- Development of programs and procedures to successfully operate and maintain the WTP LBL facilities.
- Hire and train staff to safely and efficiently operate the WTP LBL facilities.
- Handover of scoped systems to plant management:
 - Accept handover of HPS-B-01 March 2019 (2HBC3DFL1290)
 - Accept handover of Building 87S February 2019 (5HBC3SDG1290)
 - Accept handover of DOW-L-01 July 2019 (5HLC3UE0280)
 - Achieve beneficial occupancy of the LAW Facility annex – June 2019
 - Complete onsite LAB set equipment December 2019 (5HTC3ON00160).
- Corrective maintenance backlog less than 15 weeks on average over the PEMP period.

- Continue to mature commissioning plan to ensure readiness at 12 months prior to start of cold commissioning by resolution of commissioning plan open issues and proactive management of new emerging issues and content.

A.8 AWARD FEE OBJECTIVE 6: HIGH-LEVEL WASTE AND PRETREATMENT FACILITIES

ORP will assess this award fee objective in the following areas:

Completion of Hydrogen Mitigation Study

A combination of agitator operation, air purge, and C5 Ventilation (C5V) active confinement is proposed in the HLW preliminary documented safety analysis (PDSA) to prevent and mitigate hydrogen hazards for normal operations and design basis events. The Hydrogen Mitigation Strategy Engineering Study will provide the technical underpinning of the proposed control set and establish the extent of credited (safety significant SS) for hydrogen mitigate. The study will address hydrogen control for normal operations, loss of offsite power, and seismic category (SC)-1 and SC-III seismic events.

Completion of 60% Design Review of Radioactive Liquid Waste Disposal (RLD) System

Radioactive Liquid Waste Disposal (RLD) 60% Design Review will be conducted in accordance with 24590-WTP-3DP-G04T-00925, Rev. 2, *System Design Review*. The deliverables for the 60% design review design media will be commensurate with 24590-WTP-3DI-G04T-00925, Rev. 0. The 60% design (defined as Preliminary Design) has two primary objectives. The first is to confirm that the requirement set remains feasible, consistent, and clear. The second primary objective is to focus on ensuring that the preliminary system design meets the known allocated requirements..

– Completion of 60% Design Review of HLW Melter Feed Process (HFP) System

HLW Melter Feed Process (HFP) 60% Design Review will be conducted in accordance with 24590-WTP-3DP-G04T-00925, Rev. 2. The deliverables for the 60% design review design media will be commensurate with 24590-WTP-3DI-G04T-00925, Rev. 0. The 60% design (defined as Preliminary Design) has two primary objectives. The first is to confirm that the requirement set remains feasible, consistent, and clear. The second primary objective is to focus on ensuring that the preliminary design system design meets the known allocated requirements.

B. PERFORMANCE EVALUATION AND MEASUREMENT PLAN GENERAL INFORMATION

B.1 CONTRACT INCENTIVE FEE STRUCTURE

Contract No. DE-AC27-01RV14136 utilizes multiple, performance-based incentive fee components to drive contractor performance excellence in completing the design, construction, and commissioning of the WTP contract.

The award fee provides a performance incentive for the contractor and gives the Government a tool to identify and reward superior performance.

B.2 PROCESS

The total available award fee for the 2019 evaluation period is \$7,872,603.

In accordance with FAR 16.401(e)(3)(v), "Incentive Contracts," "General," the contractor is prohibited from earning any award fee when the contractor's overall cost, schedule, and technical performance is below satisfactory.

B.3 PROVISIONAL FEE

Provisional fee requirements in Contract No. DE-AC27-01RV14136 Section B, Clause B.8(g), "Provisional Payment of Fee," apply to this PEMP.

B.4 CONTRACTOR SELF-ASSESSMENT

Contract No. DE-AC27-01RV14136 Section B, Clause B.8(f) states:

Following each evaluation period, the Contractor may submit a self-assessment, provided such assessment is submitted within ten (10) calendar days after the end of the period. This self-assessment shall address both the strengths and weaknesses of the Contractor's performance during the evaluation period. Where deficiencies in performance are noted, the Contractor shall describe the actions planned or taken to correct such deficiencies and avoid their recurrence. The Contracting Officer will review the Contractor's self-assessment, if submitted, as part of its independent evaluation of the Contractor's management during the period.

B.5 METHOD FOR CHANGING THE PERFORMANCE EVALUATION AND MEASUREMENT PLAN DURING THE EVALUATION PERIOD

Proposed changes to the current period PEMP may be initiated by either ORP or the contractor. Proposed changes shall be in writing. Both ORP and the contractor must agree to any changes. Once agreement is reached, the FDO and contractor representative will sign the revised PEMP. The revision number (e.g., Rev. 1) will be noted on the PEMP. Subsequently, the revised PEMP will be incorporated into the contract by reference via contract modification.

ABBREVIATIONS AND ACRONYMS

DFLAW	direct-feed low-activity waste
DOE	U.S. Department of Energy
FDO	fee-determining official
HLW	high-level waste
LAB	Analytical Laboratory
LAW	low-activity waste
LBL	Low-Activity Waste Facility, Balance of Facilities, and Analytical Laboratory
ORP	U.S. Department of Energy, Office of River Protection
PEMP	performance evaluation measurement plan
QA	quality assurance
WTP	Waste Treatment and Immobilization Plant

REFERENCES

Contract No. DE-AC27-01RV14136, *Design, Construction, and Commissioning of the Hanford Tank Waste Treatment and Immobilization Plant*, U.S. Department of Energy, Washington, D.C., as amended.