

SOLICITATION, OFFER AND AWARD		THIS CONTRACT IS A RATED ORDER UNDER DPAN (18 CFR 100)		RATING	PAGE OF PAGES 1 711
2. CONTRACT NUMBER DE-EM0004895		3. SOLICITATION NUMBER DE-SOL-0008746		4. TYPE OF SOLICITATION SEAL-BID (IFB) X. NEGOTIATED (RFP)	5. DATE ISSUED 05/25/2017
7. ISSUED BY EMCBC U.S. Department of Energy EM Consolidated Business Center 250 E. 5th Street, Suite 500 Cincinnati OH 45202		CODE 03001		8. ADDRESS OFFER TO (If other than item 7) U.S. Department of Energy Attention: Bridget Purdy, Contract Specialist 250 E. 5th Street, Suite 500 Cincinnati, OH 45202	

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

9. Sealed offer in original and See Provision L.10 copies for furnishing the supplies or services in the Schedule will be received at the place specified in item 8, or if none specified, at the					
10. Sealed offer in original and See Provision L.10 copies for furnishing the supplies or services in the Schedule will be received at the place specified in item 8, or if none specified, at the					
CAUTION: Late Submissions, Modifications, and Withdrawals. See Section I, Provision 7(a), 52.214-7 of 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.					
18. FOR INFORMATION CALL:		A. NAME Bridget Purdy		B. TELEPHONE (NO COLLECT CALLS) AREA CODE 513 NUMBER 246-0567 EXT	
				C. E-MAIL ADDRESS bridget.purdy@emcbc.doe.gov	

11. TABLE OF CONTENTS							
(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
X	A	SOLICITATION/CONTRACT FORM	2	X	I	CONTRACT CLAUSES	30
X	B	SUPPLIES OR SERVICES AND PRICES/COSTS	14	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
X	C	DESCRIPTION/SPCS/WORK STATEMENT	115	X	J	LIST OF ATTACHMENTS	349
X	D	PACKAGING AND MARKING	2	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
X	E	INSPECTION AND ACCEPTANCE	9	X	K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	15
X	F	DELIVERIES OR PERFORMANCE	4				
X	G	CONTRACT ADMINISTRATION DATA	7	X	L	INSTRS. COND'S. AND NOTICES TO OFFERORS	51
X	H	SPECIAL CONTRACT REQUIREMENTS	93	X	M	EVALUATION FACTORS FOR AWARD	10

OFFER (Must be fully completed by offeror)

NOTE: Items 12 does not apply if the solicitation includes the provisions of 52.216-18, Minimum Bid Acceptance Period.

12. In accordance with the above, the undersigned agrees if this offer is accepted within 365 calendar days (30 calendar days unless a different period is specified by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s) within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause 7(a), 52.232-8)		18. CALENDAR DAYS (%)	20. CALENDAR DAYS (%)	22. CALENDAR DAYS (%)	CALENDAR DAYS (%)
14. ACKNOWLEDGEMENT OF AMENDMENTS (The offeror agrees to accept all amendments to the SOLICITATION for offers and related documents numbered and dated)		AMENDMENT NO.	DATE	AMENDMENT NO.	DATE
		0001	8/10/2016	0003	9/14/2016
		0002	9/2/2016		

15A. NAME AND ADDRESS OF OFFEROR FOUR RIVERS NUCLEAR PARTNERSHIP, LLC 9189 S. Jamaica Street Englewood, CO 80112		CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) Dyan L. Foss Nuclear Sector Global Managing Director
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18A. TELEPHONE NUMBER AREA CODE 720 NUMBER 286-0257 EXT	18C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE. ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE 	18. OFFER DATE 9/21/2016
------------------------------------------------------------	-------------------------------------------------------------------------------------------	-------------------	-----------------------------

19. ACCEPTED AS TO ITEMS NUMBERED		20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION (F.U.S.C. 3304 (a) 1) L. 41 U.S.C. 253 (a) 1)		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM
24. ADMINISTERED BY (If other than item 7)		25. PAYMENT WILL BE MADE BY	CODE
26. NAME OF CONTRACTING OFFICER (Type or print) Bridget Purdy		27. UNITED STATES OF AMERICA 	28. AWARD DATE 5/25/17

IMPORTANT - Award will be made on the Form, or on Standard Form 28, or by other authorized official written notice.
AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition is unusable

STANDARD FORM 13 (Rev. 9-97)
Prescribed by GSA - FAR (48 CFR) 53.214(c)

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-SOL-0008746

PAGE

OF

2

711

NAME OF OFFEROR OR CONTRACTOR

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	REQUEST FOR PROPOSAL, DE-SOL-0008746 for Paducah Gaseous Diffusion Plant Deactivation and Remediation Paducah Deactivation & Remediation				

**PART I – THE SCHEDULE
SECTION B
SUPPLIES OR SERVICES AND PRICES/COSTS
TABLE OF CONTENTS**

B.1	DOE-B-2012 SUPPLIES/SERVICES BEING PROCURED/DELIVERY REQUIREMENTS (OCT 2014).....	2
B.2	DOE-B-2002 COST-PLUS-AWARD-FEE CONTRACT: TOTAL ESTIMATED COST AND AWARD FEE (OCT 2014) (DEVIATION)	2
B.3	DOE-B-2013 OBLIGATION OF FUNDS (OCT 2014).....	6
B.4	DOE-B-2014 OPTION TO EXTEND THE TERM OF THE CONTRACT: ESTIMATED COST, FEE AND PERIOD OF PERFORMANCE (OCT 2014).....	14
B.5	DOE-B-2015 TASK ORDER FEE CEILING (OCT 2014) (DEVIATION)	15
B.6	EXECUTION OF CLINS	15
B.7	RESERVED	15
B.8	DOE-H-2060 BASE AND AWARD FEE (OCT 2014).....	15
B.9	FEE REDUCTIONS.....	19
B.10	SMALL BUSINESS SUBCONTRACTING FEE REDUCTION	20
B.11	PROVISIONAL PAYMENT OF FEE (REVISED).....	20
B.12	ALLOWABILITY OF SUBCONTRACTOR FEE.....	22

B.1 DOE-B-2012 SUPPLIES/SERVICES BEING PROCURED/DELIVERY REQUIREMENTS (OCT 2014)

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set for in this contract as furnished by the Government) and otherwise do all things necessary for, or incident to, the performance of work as described in Section C, Performance Work Statement.

B.2 DOE-B-2002 COST-PLUS-AWARD-FEE CONTRACT: TOTAL ESTIMATED COST AND AWARD FEE (OCT 2014) (DEVIATION)

(a) This is a Cost-Plus-Award-Fee (CPAF) type contract with Cost Reimbursable (CR) (non-fee bearing) and Indefinite-Delivery Indefinite Quantity (IDIQ) Contract Line Item Numbers (CLINs).

(b) The Contract consists of the following CLINs:

Table B.2-1 Contract CLINs			
CLIN	CLIN Title	Contract Type	PWS Section(s)
Base Period of Performance (60 months)			
0001	Paducah Contractor Transition (121 day Transition included in the 60 month Base POP)	CR (no fee)	EM.PA.0040.A001.06
0101	Base Operations and Remediation	CPAF	EM.PA.0040.A001.01 EM.PA.0040.A001.02 EM.PA.0040.A001.07 EM.PA.0040.A002.04 EM.PA.0040.A002.05.DR.01 EM.PA.0040.A002.05.DR.02 EM.PA.0040.A005.02 EM.PA.0040.A005.10 EM.PA.0040.A008.41 EM.PA.0040.A008.42 EM.PA.0040.A008.43
0102	Polychlorinated Biphenyls (PCBs)	CPAF	EM.PA.0011.A001.01
0103	Safe Guards and Security	CPAF	EM.PA.0020.A001.03.DR.01 EM.PA.0020.A001.03.DR.02 EM.PA.0020.A001.03.DR.03.01 EM.PA.0020.A001.03.DR.03.02 EM.PA.0020.A001.03.DR.03.03
0104	Worker Pensions & Retirement Health Benefits	CPAF (fee applies to administration only)	EM.PA.0040.A001.07.DR.19
0105	Stabilization and Deactivation	CPAF	EM.PA.0040.A008.48.DR.01 ¹ EM.PA.0040.A008.48.DR.01.05 EM.PA.0040.A008.48.DR.01.06 EM.PA.0040.A008.48.DR.02 ¹ EM.PA.0040.A008.48.DR.02.05

			EM.PA.0040.A008.48.DR.02.06 EM.PA.0040.A008.48.DR.03 EM.PA.0040.A008.48.DR.04 EM.PA.0040.A008.48.DR.05 EM.PA.0040.A008.48.DR.06
Option 1 Period of Performance (36 months)			
0201	Base Operations and Remediation	CPAF	EM.PA.0040.A001.01 EM.PA.0040.A001.02 EM.PA.0040.A001.07 EM.PA.0040.A002.04 EM.PA.0040.A002.05.DR.01 EM.PA.0040.A005.02 EM.PA.0040.A005.10 EM.PA.0040.A008.41 EM.PA.0040.A008.42 EM.PA.0040.A008.43
0202	Polychlorinated Biphenyls (PCBs)	CPAF	EM.PA.0011.A001.01
0203	Safe Guards and Security	CPAF	EM.PA.0020.A001.03.DR.01 EM.PA.0020.A001.03.DR.02 EM.PA.0020.A001.03.DR.03.03
0204	Worker Pensions & Retirement Health Benefits	CPAF (fee applies to administration only)	EM.PA.0040.A001.07.DR.19
0205	Stabilization and Deactivation	CPAF	EM.PA.0040.A008.48.DR.01 ¹ EM.PA.0040.A008.48.DR.01.06 EM.PA.0040.A008.48.DR.02 ¹ EM.PA.0040.A008.48.DR.02.05 EM.PA.0040.A008.48.DR.02.06 EM.PA.0040.A008.48.DR.06
Option 2 Period of Performance (24 months)			
0301	Base Operations and Remediation	CPAF	EM.PA.0040.A001.01 EM.PA.0040.A001.02 EM.PA.0040.A001.07 EM.PA.0040.A002.04 EM.PA.0040.A002.05.DR.01 EM.PA.0040.A005.10 EM.PA.0040.A008.41 EM.PA.0040.A008.42 EM.PA.0040.A008.43
0302	Polychlorinated Biphenyls (PCBs)	CPAF	EM.PA.0011.A001.01
0303	Safe Guards and Security	CPAF	EM.PA.0020.A001.03.DR.01 EM.PA.0020.A001.03.DR.02
0304	Worker Pensions & Retirement Health Benefits	CPAF (fee applies to administration only)	EM.PA.0040.A001.07.DR.19
0305	Stabilization and Deactivation	CPAF	EM.PA.0040.A008.48.DR.02 ¹ EM.PA.0040.A008.48.DR.02.05 EM.PA.0040.A008.48.DR.06
0106			
0206			

0306			
IDIQ (Estimated Performance²)			
0401	IDIQ	CPAF and Firm-Fixed-Price (FFP)	EM.PA.0040.A009.04.DR.01, and/or EM.PA.0040.A009.04.DR.02, and/or EM.PA.0040.A009.04.DR.03, and/or EM.PA.0040.A009.04.DR.04, and/or EM.PA.0040.A009.04.DR.05, and/or any other PWS Section, as necessary

¹ Although they are not shown in the table above, the lower level WBSs for process building characterization and stabilization/deactivation (e.g., DR.01.01, DR.01.02, etc.) are included.

² Initially, the IDIQ CLIN ordering period is consistent with the period of performance for the Base Period of 60 months and will be extended commensurate with the exercise of Option Periods 1 and 2 (if exercised). The Periods of Performance are detailed in Clause F.3 DOE-F-2003.

(c) This Section establishes the estimated Contract Cost and Fee for each CLIN. Within Table B.2-2, the following definitions apply:

(1) *Estimated Cost* for each CLIN is defined as the cost to perform the CLIN agreed to by the parties. The exception is the IDIQ CLINs, for which the amount shown in Table B.2-2 reflects the maximum quantity of supplies or services the Government will acquire under the IDIQ CLINs (inclusive of any fee or profit).

(2) *Available Award Fee* is defined as the amount of award fee that may be earned under the Contract for each applicable CLIN.

(3) *PBI Fee* is based on the successful completion of the identified activities in the Performance Evaluation Measurement Plan..

(4) *Estimated Cost and Fee* is defined as the Estimated Cost, Available Award Fee, and PBI Fee per CLIN.

Mod 0101 Table B.2-2 Contract Cost and Fee								
Base CLIN	Base CLIN Title	Estimated Cost	Available Award Fee	Activity PBI Fee	Total Estimated Cost and Fee	Change in Cost	Change Avail Award Fee	Change in PBI Fee
Base Period of Performance (60 Months)								
0001	Paducah Contractor Transition							
0101	Base Operations and Remediation							
0102	Polychlorinated Biphenyls (PCBs)							
0103	Safe Guards and Security (PA-0020)							
0104	Worker Pensions & Retirement Health Benefits (fee applies to admin only)							
0105	Stabilization and Deactivation							
0107	PBI Fee for CLINS 0101-0105							
	Total Base Period							
Option 1 Period of Performance (36 months)								
0201	Base Operations and Remediation							
0202	Polychlorinated Biphenyls (PCBs)							
0203	Safe Guards and Security (PA-0020)							
0204	Worker Pensions & Retirement Health Benefits (fee applies to admin only)							
0205	Stabilization and Deactivation							
0207	PBI Fee for CLINS 0201-0205							
	Total Option Period 1							
Option 2 Period of Performance (24 months)								
0301	Base Operations and Remediation							
0302	Polychlorinated Biphenyls (PCBs)							
0303	Safe Guards and Security (PA-0020)							
0304	Worker Pensions & Retirement Health Benefits (fee applies to admin only)							
0305	Stabilization and Deactivation							
0307	PBI Fee for CLINS 0301-0305							
	Total Option Period 2							
Technical Option 1 (Estimated Performance)								
0106	NDA Characterization C-315 Facility and Deposit/Hold-up Removal for C-15/C-620							
Technical Option 2 (Estimated Performance)								
0206	NDA Characterization C-310/C-310A Facility and Deposit Removal for C-310/C-310A							
Technical Option 3 (Estimated Performance)								
0306	Deactivation of Fire Systems for the Process Facilities							
IDIQ (Estimated Performance)								
0401	IDIQ Ceiling Value							
Orderes	FEM40000003 - C-400							
	FEM40000004-R-114							
	FEM4000070-R-114							
	FEM400081 Switchyard							
	FEM400093 - SWMU 513							
	FEM400097 - SWMU20							

*Total Available Award Fee will include the “Available Award Fee” and “Activity PBI Fee” as defined in B.8, DOE-H-2060 Base and Award Fee. Additional PBIs will be defined during contract performance as part of the Performance Evaluation Management Plan (PEMP). Also, no base fee is payable under this contract.

¹ No fee is payable for the contract transition CLIN.

² Available Award Fee is [REDACTED] of the estimated for Polychlorinated Biphenyls (PCBs) and Safe Guards and Security CLINs.

³ Available Award Fee is [REDACTED] of the estimated for Base Operations and Remediation and Stabilization and Deactivation CLINs.

⁴ PBI Fee shall not exceed [REDACTED] unless approved by CO.

⁵ The amounts shown in Table B.2-2 for the IDIQ CLIN is collectively consistent with the IDIQ maximum value of [REDACTED] and includes estimated costs and fee/profit. No separate fee/profit shall be included for the IDIQ CLIN in Table B.2-2 as fee/profit will be established in each individual Task Order in accordance with DOE-B-2015.

⁶ The total contract value equals the sum of the base period total estimated cost and fee, the option periods total amount, and the IDIQ CLIN ceiling value.

⁷ The IDIQ maximum ordering value of [REDACTED] is for the full 120 month period of performance, including the option periods, if exercised.

(d) Payment of fee will be made in accordance with B.11, Provisional Payment of Fee, and B.8, DOE-H-2060 Base and Award Fee.

(e) Under the IDIQ CLIN, the Government may issue CPAF and Firm-Fixed-Price (FFP) Task Orders depending on the nature of the requirement for the delivery of work. Payment for the services ordered and delivered shall be made in accordance with applicable contract clause addressing payment as included in each individual task order.

The minimum ordering quantity in accordance with FAR 52.216-22(b) is \$1,000. The maximum quantity of supplies or services the Government will acquire under the IDIQ CLIN over the full contract period of performance including the base period and the option periods, if exercised, is [REDACTED]. The ordering period for the IDIQ CLIN is identified in Clause F.3, DOE-F-2003, Period Of Performance – Alternate I And Alternate II (OCT 2014), is consistent with the period of performance for the Base Period of 60 months and will be extended if the option periods are exercised.

B.3 DOE-B-2013 OBLIGATION OF FUNDS (OCT 2014)

- a. Pursuant to the clause of this contract at FAR 52.232-22, Limitation of Funds, total funds in the amount(s) specified below are obligated for the payment of allowable costs and fee. It is estimated that this amount is sufficient to cover performance through the date(s) shown below.

See B.3.b

- b. Obligation of funds as of Modification 0103.

Sect B. B.3.(b) Obligation of Funds Mod 0103

CLIN	MOD	DATE	PBS	FUND CODE/ACCOUNTING CODE	\$ Amount	\$ Cumulative
00001	Base	5/25/2017	PA-0040	03000 2017 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 17EM001645)		
	00002	6/29/2017	PA-0040	03000 2017 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 17EM001949)		
	00004	9/15/2017	PA-0040	03000 2017 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 17EM002827)		
	00029	9/21/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM006113)		
CLIN TOTAL						
00101	Base	5/25/2017	PA-0040			
	00004	9/15/2017	PA-0040	03000 2017 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 17EM002827)		
	00008	11/9/2017	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM003369)		
	00008	11/9/2017	EEOICPA	01050 2018 33 490804 25499 3184701 0000000 0000000 0000000 (Requisition : 18EM003369)		
	00011	12/22/2017	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM003628)		
	00012	1/19/2018	EEOICPA	01050 2018 33 490804 25499 3184701 0000000 0000000 0000000 (Requisition : 18EM003805)		
	00012	1/19/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM003805)		
	00013	2/7/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM003943)		
	00014	3/8/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM004172)		
	00015	4/19/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM004592)		
	00021	6/14/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM005021)		
	00023	6/28/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM005180)		
	00028	8/24/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM005717)		

00029	9/21/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM006113)
00030	10/16/2018	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM000067)
00033	11/14/2018	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM000277)
00035	12/19/2018	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM000502)
00037	1/25/2019	EEOICPA	01050 2019 33 490804 25499 3184701 0000000 0000000 0000000 (Requisition : 19EM000704)
00037	1/25/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM000704)
00039	4/17/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM001228)
00044	7/16/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM001713)
00046	9/23/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM002361)
00046	9/23/2019	EEOICPA	01050 2019 33 490804 25499 3184701 0000000 0000000 0000000 (Requisition : 19EM002361)
00049	11/22/2019	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM000143)
00050	12/16/2019	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM000428)
00051	1/23/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM000655)
00054	3/9/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM000958)
00057	4/16/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM001228)
00057	4/16/2020	PA-0040Cov	03000 2020 33 490810 25499 1111523 3013735 0000000 0000000 (Requisition:20EM001228)
00059	5/7/2020	PA-0040Cov	03000 2020 33 490810 25499 1111523 3013735 0000000 0000000 (Requisition:20EM001379)
00060	5/8/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM001380)
00063	6/8/2020	PA-0040Cov	03000 2020 33 490810 25499 1111523 3013735 0000000 0000000 (Requisition:20EM001518)
00066	7/8/2020	PA-0040Cov	03000 2020 33 490810 25499 1111523 3013735 0000000 0000000 (Requisition:20EM001685)
00067	7/17/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM001734)
00070	9/10/2020	PA-0040Cov	03000 2020 33 490810 25499 1111523 3013735 0000000 0000000 (Requisition:20EM002184)
00071	9/10/2020	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM002190)

00071	9/10/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM002190)
00073	9/28/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM002388)
00075	10/22/2020	PA-0040Cov	03000 2021 33 490810 25499 1111523 3013735 0000000 0000000 (Requisition:21EM000076)
00077	11/30/2020	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM000248)
00078	12/18/2020	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM000449)
00080	1/15/2020	PA-0040Cov	03000 2021 33 490810 25499 1111523 3013735 0000000 0000000 (Requisition:21EM000076)
00081	3/2/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM000801)
00084	5/3/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM001247)
00084	5/3/2021	EEOICPA	01050 2021 33 490804 25499 4400031 0000000 0000000 0000000 (Requisition: 21EM001247)
00085	6/17/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 21EM001544)
00088	8/2/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 21EM001840)
00089	9/15/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 21EM002204)
00095	10/29/2021	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 22EM000158)
00098	1/13/2022	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 22EM000593)
00103	3/7/2022	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 22EM000817)
00103	3/7/2022	PA-0011X	01751 2022 33 490810 25499 1110969 0001495 0000000 0000000 (Requisition: 22EM000817)
CLIN TOTAL			
00102	Base	5/25/2017	PA-0011
00004	9/15/2017	PA-0011	01751 2017 33 490810 25499 1110968 0001494 0000000 0000000 (Requisition: 17EM002827)
00008	11/9/2017	PA-0011	01751 2018 33 490810 25499 1110968 0001494 0000000 0000000 (Requisition: 18EM003369)
00011	12/22/2017	PA-0011	01751 2018 33 490810 25499 1110968 0001494 0000000 0000000 (Requisition: 18EM003628)
00039	4/17/2019	PA-0011	01751 2019 33 490810 25499 1110968 0001494 0000000 0000000 (Requisition: 19EM001228)
00044	7/16/2019	PA-0011	01751 2019 33 490810 25499 1110968 0001494 0000000 0000000 (Requisition: 19EM001713)

00046	9/23/2019	PA-0011	01751 2019 33 490810 25499 1110968 0001494 0000000 0000000 (Requisition: 19EM002361)
00057	4/16/2020	PA-0011Cov	01751 2020 33 490810 25499 1110968 3013735 0000000 0000000 (Requisition: 20EM001228)
00059	5/7/2020	PA-0011Cov	01751 2020 33 490810 25499 1110968 3013735 0000000 0000000 (Requisition: 20EM001379)
00060	5/8/2020	PA-0011	01751 2020 33 490810 25499 1110968 0001494 0000000 0000000 (Requisition: 20EM001380)
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00021	6/14/2018	PA-0040	03000 2018 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition: 18EM005021)
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00037	1/25/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM000704)
00044	7/16/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM001713)
00046	9/23/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM002361)
00047	9/30/2019	PA-0040	03000 2019 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:19EM002361)
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00050	12/16/2019	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM000428)
00051	1/23/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM000655)
00054	3/9/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM000958)
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00067	7/17/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM001734)
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	00073	9/28/2020	PA-0040	03000 2020 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:20EM002388)	
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	00084	5/3/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM001247)	
	00085	6/17/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM001544)	
	00088	8/2/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM001840)	
	00089	9/15/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM002204)	
	00095	10/29/2021	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:22EM000158)	
	00098	1/13/2022	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:22EM000593)	
	00103	3/7/2022	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:22EM000817)	
				CLIN TOTAL	
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				CLIN TOTAL	
	00107	Base	0/0/201	PA-0040	Clin Created after contract award for PBI fee
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	00084	5/3/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM000801)	
	00085	6/17/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM001544)	
	00088	8/2/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM001840)	
	00089	9/15/2021	PA-0040	03000 2021 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:21EM002204)	
	00095	10/29/2021	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:22EM000158)	
	00103	3/7/2022	PA-0040	03000 2022 33 490810 25499 1111523 0001498 0000000 0000000 (Requisition:22EM000817)	
				CLIN TOTAL	
				Contract Total Obs	

B.4 DOE-B-2014 OPTION TO EXTEND THE TERM OF THE CONTRACT: ESTIMATED COST, FEE AND PERIOD OF PERFORMANCE (OCT 2014)

- (a) In accordance with the clause at FAR 52.217-9, Option to Extend the Term of the Contract, the Government may unilaterally extend the contract period of performance (as set forth in Section F, Deliveries) to require the Contractor to perform the work set out by Section C, Description/Specs/Work Statement of the contract. In the event

that the Government elects to exercise its unilateral right to extend the term of the contract pursuant to this clause and FAR 52.217-9, all terms and conditions of the contract will remain in full force and effect.

- (b) The Contracting Officer will consider factors set forth in FAR 17.207, Exercise of Options, in determining whether to exercise an option to extend the term of the contract. The Government is concerned with ensuring that the Contractor's performance meets, or exceeds, the performance requirements of the contract in a cost-effective manner. Accordingly, the Contracting Officer will consider the Contractor's performance as part of the determination to exercise any option to extend the contract term.
- (c) The Estimated Cost, Fee, and Period of Performance of each option to extend the term of the contract are set forth in Table B.2-1, and Section F, DOE-F-2003, PERIOD OF PERFORMANCE- ALTERNATE I AND ALTERNATE II (2014).

B.5 DOE-B-2015 TASK ORDER FEE CEILING (OCT 2014) (DEVIATION)

- (a) The fee amount, specified as a percentage, is ■■■■ for cost-plus-award-fee type Task Orders and shall serve as the fee ceiling for all cost-plus-award-fee Task Orders issued under the contract.
- (b) The fee amount for each Task Order will be negotiated and established in each individual Task Order. The Contractor may propose whatever fee amount it determines appropriate for the individual task order, provided that the fee amount as a percentage of the estimated cost of each proposed Task Order does not exceed the fee percentage ceiling for cost-plus-award-fee Task Orders, as specified above. For cost-plus-award-fee Task Orders, the fee ceiling percentage applies to the total of the amount proposed for award fee.

B.6 EXECUTION OF CLINS

- (a) Sequence of Execution. Upon the Notice to Proceed, the Transition CLIN (0001) will be executed. Upon completion of Transition, the base period CLINs (0101, 0102, 0103, 0104, and 0105) will be executed. The CLINs for Option Period 1 and Option Period 2 will be executed if these options are exercised in accordance with FAR 52.217-9, *Option to Extend the Term of the Contract*.
- (b)

B.7 RESERVED

B.8 DOE-H-2060 BASE AND AWARD FEE (OCT 2014)

(a) The Government shall pay the Contractor for performing this contract award fee that may be earned from the available award fee, specified in Section B in accordance with this clause and other applicable clauses of the contract.

(b) Base Fee Payment. The base fee, if any, shall be payable on a schedule specified in another clause of this contract or as determined by the Contracting Officer and subject to the following provisions. The Contracting Officer shall withhold a reserve not to exceed 15 percent of the total base fee or \$100,000, whichever is less, to protect the Government's interest.

(c) Award-fee.

(1) Performance Evaluation Management Plan.

(A) A Performance Evaluation Management Plan (PEMP) shall be issued unilaterally by the Contracting Officer for each evaluation period that establishes the criteria and procedures for evaluating the Contractor's performance for the purpose of determining any award-fee earned. The PEMP shall include, as a minimum, the following:

(i) Evaluation criteria linked to the contract's performance objectives as defined in terms of cost, schedule, technical, or other contract performance requirements or objectives;

(ii) Means of how the Contractor's performance will be measured against the evaluation criteria;

(iii) Award-fee evaluation period;

(iv) Amount of the total available award-fee that is allocated to the evaluation period, including the allocation for award-fee criteria and performance-based incentive criteria; and

(v) Methodology for application of subjective evaluation ratings or attainment of predetermined objectives to earned fee.

(B) There are two categories of evaluation criteria that may be used in determining award-fee earned: award-fee criteria and performance-based incentive criteria. Each of these categories, in general, is defined as follows:

(i) Award-fee Criteria— Evaluation criteria that are qualitative or subjective for which it is neither feasible nor effective to devise pre-determined objective criteria applicable to cost, schedule, technical or other contract performance requirements or objectives. These types of criteria require a

judgmental evaluation process and allow the Government the flexibility to evaluate both actual performance and the conditions under which it was achieved.

- (ii) Performance-Based Incentive Criteria – Evaluation Criteria which can be defined by predetermined, objective incentive criteria applicable to cost, schedule, technical or other contract performance requirements or objectives. Performance measurement standards contain well-defined parameters for measuring performance against evaluation criteria. These criteria may extend beyond one evaluation period when appropriate to incentivize the completion of long-term objectives.
- (C) The length of evaluation periods shall be determined unilaterally by the Contracting Officer. The evaluation periods should provide a balance between the Contractor's ability to have sufficient performance time for the Government to evaluate; but evaluation periods should provide the ability for the Government to provide timely evaluations on the Contractor's performance without being administratively burdensome.
- (D) The PEMP shall be provided to the Contractor 1 calendar day prior to the beginning of the first and each successive evaluation period. If there is not sufficient time for the PEMP to be provided to the Contractor in the required number of days in advance of the beginning of the evaluation period, the Contractor shall not be evaluated on its performance until 1 calendar day after the PEMP is received by the Contractor. The PEMP may be revised unilaterally at any time during the evaluation period; but the revised PEMP, or revised portion thereof, shall not be effective until 1 calendar day after the Contractor receives the revised PEMP.
- (2) Performance Evaluation and Fee Determination.
- (A) Monitoring Performance. During the evaluation period, performance monitors will track the Contractor's performance in accordance with the PEMP. Interim evaluations may be provided to the Contractor to identify strengths, weaknesses and deficiencies in the Contractor's performance during the current evaluation period. At the end of an evaluation period, performance monitors will assess the Contractor's performance in accordance with the PEMP and report the results to the Award-fee Board (AFB).
 - (B) Contractor Self-Assessment. Following each evaluation period, the Contractor may provide a written self-assessment of its performance to the AFB to be considered in its report to the Fee Determining Official (FDO). The self-assessment shall be submitted not later than 21 calendar days after the end of each evaluation period. The self-assessment shall address

strengths, weaknesses and deficiencies in the Contractor's performance during the evaluation period. Where deficiencies in performance are noted, the Contractor should describe the actions planned or taken to correct such deficiencies to avoid their recurrence.

- (C) Award-fee Board Recommendation. The AFB will consider the performance monitors' reports and any other pertinent information, including the Contractor's self-assessment, and prepare a report for the FDO with findings and recommendations. The Contractor will be provided a draft copy of the AFB's report and will be afforded an opportunity to identify factual errors. The AFB's draft report is not subject to negotiation with the Contractor. The Contractor will be provided a copy of the final AFB report immediately after the report is finalized.
 - (D) Award-fee Determination. The FDO will review the AFB's recommendation, the Contractor's self-assessment and other pertinent information related to the Contractor's performance. The FDO will make a final, written determination, consistent with the PEMP, as to the amount of the award-fee earned. The FDO's final determination will be provided to the Contractor no later than 90 calendar days after the end of the evaluation period. The FDO, AFB representative, or Contracting Officer will provide a debriefing to the Contractor on the final determination. All FDO decisions regarding award-fee are made solely at the discretion of the Government, including but not limited to, the characterization of the Contractor's performance, amount of earned fee, if any, and the methodology used to calculate the earned fee.
- (3) Unsatisfactory Performance. No award-fee shall be earned if the Contractor's overall performance in the aggregate is below satisfactory.
 - (4) Unearned Award-fee. Any unearned award-fee, for which the Contractor had the opportunity to earn during an evaluation period, shall not be transferred to subsequent evaluation periods, thus allowing the Contractor an additional opportunity to earn that previously unearned award-fee.
 - (5) Award-fee Payment. After the FDO's award-fee determination, the Contracting Officer will issue a unilateral modification to the contract setting forth the amount of earned fee. Payment will be made after the modification has been issued and consistent with other clauses of this contract related to payments. The PEMP may provide for the payment of earned fee for performance-based incentives completed prior to the end of the evaluation period or provisional payments of earned fee based on established progress in meeting performance-based incentives extending beyond an individual evaluation period.

B.9 FEE REDUCTIONS

- (a) All annual available fee in each year of Contract performance is subject to reductions imposed by the terms and conditions of this Contract, including, but not limited to:
- (1) Section B Clause entitled, *DOE-H-2060 Base and Award Fee*;
 - (2) Section B Clause entitled, *Small Business Subcontracting Fee Reduction*;
 - (3) Section E Clause entitled, *FAR 52.246-3, Inspection of Supplies – Cost Reimbursement*;
 - (4) Section E Clause entitled, *FAR 52.246-5, Inspection of Services – Cost Reimbursement*;
 - (5) Section E Clause entitled, *FAR 52.246-2, Inspection of Supplies – Fixed-Price*
 - (6) Section E Clause entitled, *FAR 52.246-4, Inspection of Services – Fixed-Price*
 - (7) Section H Clause entitled, *DOE-H-2070 Key Personnel*;
 - (8) Section I Clause entitled, *FAR 52.203-10, Price or Fee Adjustment for Illegal or Improper Activity*;
 - (9) Section I Clause entitled, *FAR 52.215-11, Price Reduction for Defective Cost or Pricing Data – Modifications*;
 - (10) Section I Clause entitled, *FAR 52.215-13, Subcontractor Cost or Pricing Data – Modifications*;
 - (11) Section I Clause entitled, *FAR 52.219-16, Liquidated Damages – Subcontracting Plan*;
 - (12) Section I Clause entitled, *FAR 52.243-2, Changes – Fixed-Price*
 - (13) Section I Clause entitled, *FAR 52.243-2, Changes – Cost Reimbursement*; and
 - (14) Section I Clause entitled, *DEAR 952.223-76, Conditional Payment of Fee or Profit – Safeguarding Restricted Data and Other Classified Information and Protection of Worker Safety and Health*.
- (b) The maximum fee reduction in any annual period of Contract performance is the allocated *Annual Award Fee*, as defined in the PEMP that can be earned in the annual period the event occurred.

B.10 SMALL BUSINESS SUBCONTRACTING FEE REDUCTION

For the purpose of implementing this Clause, the percentage goals established in the Section J-1 Attachment entitled, *Small Business Subcontracting Plan*, will remain in effect for the duration of the Contract.

- (a) The Contractor's performance in meeting small business performance percentage goals in accordance with the Section H Clause H.62 entitled, *Subcontracted Work* and the contractor's *Small Business Subcontracting Plan*, will be evaluated at the end of each performance period indicated below. The evaluation will be based on the cumulative small business subcontracting for the entire performance period.
 - (1) At the end of the Base Period of Contract performance;
 - (2) At the end of Option Period #1 of Contract performance (if this option is exercised);
 - (3) At the end of Option Period #2 of Contract performance (if this option is exercised).
- (b) If the Contractor has not met any or all of the subcontracting goals, and/or has failed to provide meaningful work for small businesses, the Contracting Officer may reduce the annual award fee earned for the last year of each performance period. The reduction amount may be up to 25% of the annual award fee criteria earned for the last year of the Base Period, 15% for the last year of Option Period #1, and 10% for the last year of Option Period #2.

B.11 PROVISIONAL PAYMENT OF FEE (REVISED)

- (a) Notwithstanding any other term or condition of this contract to the contrary, this clause applies to and has precedence over all other terms and conditions of this contract that provide for provisional payment of fee.
- (b) The Contractor must notify the Contracting Officer immediately if it believes any incongruence exists between this clause and any other term or condition of this contract that provides for provisional payment of fee. If a term or condition of this contract provides for provisional payment of fee but fails to include all of the requirements of this clause, that term or condition will be considered to include the omitted requirements.
- (c) This clause conforms to the Federal Acquisition Regulation and Department of Energy fee policy and constructs. The following definitions and concepts apply.
 - (1) Price means cost plus any fee or profit applicable to the contract.
 - (2) The terms profit and fee are synonymous.

- (3) Incentive means a term or condition whose purpose is to motivate the Contractor to provide supplies or services at lower costs, and in certain instances with improved delivery or technical performance, by relating the amount of profit or fee earned to the Contractor's performance.
 - (4) Earned fee for an incentive means fee due the Contractor by virtue of its meeting the contract's requirements entitling it to fee. Earned fee does not occur until the Contractor has met all conditions stated in the contract for earning fee.
 - (5) Available fee for an incentive means the fee the Contractor might earn but has not yet earned.
 - (6) Provisional payment of fee for an incentive means the Government's paying available fee for an incentive to the Contractor for making progress towards meeting the performance measures for the incentive before the Contractor has earned the available fee.
 - (7) Provisional payment of fee has no implications for the Government's eventual determination that the Contractor has or has not earned the associated available fee. Provisional payment of fee is a separate and distinct concept from earned fee. The Contractor could, for example, receive 100% of possible provisional fee payments yet not earn any fee (the Contractor would be required to return all of the provisional fee payments). The Contractor could, for example, receive 0% of possible provisional fee payments yet earn the entire amount of available fee (it would not receive any fee payments until the Government's determination that the Contractor had earned the associated available fee for the incentive).
 - (8) Clause means a term or condition used in this contract.
- (d) This contract's price, incentives included in its price, and all other terms and conditions reflect the Government's and the Contractor's agreement to link, to the maximum extent practical, the Contractor's earning of fee to its achievement of final outcomes rather than interim accomplishments.
- (e) Certain terms and conditions of this contract provide for provisional payment of fee for certain incentives. Other terms and conditions of this contract provide for each such incentive the requirements the Contractor must meet to earn the fee linked to the incentive. The terms and conditions of this contract that provide for provisional payment of fee for certain incentives include for each such incentive the requirements the Contractor must meet before the Government is obligated to pay fee, provisionally, to the Contractor and for the Contractor to have any right to retain the provisionally paid fee.
- (f) The Contracting Officer, at his/her sole discretion, will determine if the Contractor has met the requirements under which the Government will be obligated to pay fee, provisionally, to the Contractor and for the Contractor to have any right to retain the provisionally paid fee.

- (g) If the Contracting Officer determines the Contractor has not met the requirements to retain any provisionally paid fee and notifies the Contractor, the Contractor must return that provisionally paid fee to the Government within 30 days: (i) the Contractor's obligation to return the provisional paid fee is independent of its intent to dispute or its disputing the Contracting Officer's determination; and (ii) if the Contractor fails to return the provisionally paid fee within 30 days of the Contracting Officer's determination, the Government, in addition to all other rights that accrue to the Government and all other consequences for the Contractor due to the Contractor's failure, may deduct the amount of the provisionally paid fee from: amounts it owes under invoices; or any other amount it owes the Contractor for payment, financing, or other obligation.
- (h) If the Contractor has earned fee associated with an incentive in an amount greater than the provisional fee the Government paid to the Contractor for the incentive, the Contractor will be entitled to retain the provisional fee and the Government will pay it the difference between the earned fee and the provisional fee.

B.12 ALLOWABILITY OF SUBCONTRACTOR FEE

- (a) If the Contractor is part of a teaming arrangement as described in FAR Subpart 9.601(1), *Contractor Team Arrangements*, the team shall share in the *Total Available Award Fee* and *Total PBI Fee* as shown in Table B.2-2. Separate, additional critical subcontractor fee is not an allowable cost under this Contract for individual team members, or for a subcontractor, supplier, or lower-tier subcontractor that is a wholly-owned, majority-owned, or affiliate of any team member.
- (b) The subcontractor fee restriction in paragraph (a) does not apply to members of the Contractor's team that are: (1) small business(es); (2) Protégé firms as part of an approved Mentor-Protégé relationship identified in the Contractor's Diversity Plan as per the Section H clause at DOE-H-2046, Diversity Program; (3) subcontractors under a competitively awarded firm-fixed price or firm-fixed unit price subcontract; or (4) commercial items as defined in FAR Subpart 2.1, *Definitions*.

SECTION C

Performance Work Statement

Table of Contents

C. OVERVIEW.....	5
C.1. INTRODUCTION	5
C.1.1. Project Purpose and Scope	8
C.1.2. Objectives and Programmatic Requirements	8
C.1.3. Contractor Performance and Key Requirements	9
C.1.4. General End State Requirements	12
C.1.5. Programmatic or Site Requirements Documents	12
C.2. WORK TO BE ACCOMPLISHED.....	13
<i>EM.PA.0040.A001.06.DR PADUCAH CONTRACTOR TRANSITION.....</i>	<i>13</i>
EM.PA.0040.A001.06.DR.01 Transition.....	13
EM.PA.0040.A001.06.DR.02 Implementation.....	13
EM.PA.0040.A001.06.DR.03 Environmental Compliance Review.....	16
EM.PA.0040.A001.06.DR.04 Material Differences	16
<i>EM.PA.0011.A001.01.DR POLYCHLORINATED BIPHENYLS (PCBs).....</i>	<i>17</i>
EM.PA.0011.A001.01.DR.02 Polychlorinated Biphenyls (PCBs) Operations.....	17
<i>EM.PA.0020.A001.03.DR SAFEGUARDS AND SECURITY.....</i>	<i>19</i>
EM.PA.0020.A001.03.DR.01 Security Program	19
EM.PA.0020.A001.03.DR.02 Protective Force Services	21
EM.PA.0020.A001.03.DR.03 Security Infrastructure.....	23
EM.PA.0020.A001.03.DR.03.01 New Firing Range	23
EM.PA.0020.A001.03.DR.03.02 Institute Limited Area Islands.....	23
EM.PA.0020.A001.03.DR.03.03 Protective Force Facilities	23
<i>EM.PA.0040.A001.01.DR ENVIRONMENTAL MONITORING PROGRAM</i>	<i>24</i>
EM.PA.0040.A001.01.DR.01 Environmental Monitoring and Reporting	24
EM.PA.0040.A001.01.DR.01.01 Abandon Piezometers, and Wells.....	28
EM.PA.0040.A001.02.DR.01 Pump and Treat Operations.....	30
<i>EM.PA.0040.A001.07.DR PROJECT MANAGEMENT SUPPORT.....</i>	<i>31</i>
EM.PA.0040.A001.07.DR.02 Project Planning & Integration Support.....	31
EM.PA.0040.A001.07.DR.02.01 Project Planning, Integration and Interface	31
EM.PA.0040.A001.07.DR.02.02 Regulatory Planning	33
EM.PA.0040.A001.07.DR.02.03 Program Management Support	34
EM.PA.0040.A001.07.DR.03 Project Management	37
EM.PA.0040.A001.07.DR.04 Environment, Safety, Security, Health & Quality.....	39
EM.PA.0040.A001.07.DR.04.01 Safety Programs	39
EM.PA.0040.A001.07.DR.04.02 Integrated Safety Management	44
EM.PA.0040.A001.07.DR.04.03 Radiological Protection Program	46
EM.PA.0040.A001.07.DR.04.04 Emergency Management & Fire Protection Program	47

EM.PA.0040.A001.07.DR.04.05 Quality Programs	51
EM.PA.0040.A001.07.DR.04.06 Quality System for Nondestructive Assay Characterization (QSNDA)	52
EM.PA.0040.A001.07.DR.11 Real and Personal Property Management	53
EM.PA.0040.A001.07.DR.12 Automated Supply Pilot Project	55
EM.PA.0040.A001.07.DR.13 Asset Recovery and Recycling	56
EM.PA.0040.A001.07.DR.14 Energy Efficiency	57
EM.PA.0040.A001.07.DR.15 Records Management	60
EM.PA.0040.A001.07.DR.16 Continuity Program	64
EM.PA.0040.A001.07.DR.17 DOE Consolidated Audit Program	64
EM.PA.0040.A001.07.DR.18 Project Close-out and Completion	65
EM.PA.0040.A001.07.DR.19 Worker Pensions & Retirement Health Benefits	66
EM.PA.0040.A001.07.DR.20 Nuclear Materials Control and Accountability	66
EM.PA.0040.A001.07.DR.21 Information Services and Communications	67
EM.PA.0040.A001.07.DR.22 Laundry	69
<i>EM.PA.0040.A001.14.DR C-400 VAPOR INTRUSION STUDY</i>	69
EM.PA.0040.A001.14.DR.01 C-400 Vapor Intrusion Study	69
<i>EM.PA.0040.A002.03.DR ON-SITE WASTE DISPOSAL FACILITY (OSWDF)</i>	70
EM.PA.0040.A002.03.DR.02.01 OSWDF Remedial Investigation/Feasibility Study	70
<i>EM.PA.0040.A002.04.DR WASTE OPERATIONS</i>	70
EM.PA.0040.A002.04.DR.01 Waste Operations	70
<i>EM.PA.0040.A002.05.DR LANDFILL OPERATIONS</i>	76
EM.PA.0040.A002.05.DR.01 Operate the Landfills	76
EM.PA.0040.A002.05.DR.02 Landfill Expansion	78
<i>EM.PA.0040.A005.02.DR SOUTHWEST PLUME SOURCES REMEDIATION</i>	78
EM.PA.0040.A005.02.DR.02 SWMUs 211 A&B Remediation	78
<i>EM.PA.0040.A007.04.DR SWMU4 FEASIBILITY STUDY</i>	80
EM.PA.0040.A007.04.DR.02 SWMU 4 Feasibility Study	80
<i>EM.PA.0040.A005.10.DR C-400 COMPLEX OPERABLE UNIT REMEDIATION</i>	80
EM.PA.0040.A005.10.DR.01 C-400 Complex Operable Unit Remediation	80
<i>EM.PA.0040.A014.01 C-400 COMPLEX DEMOLITION</i>	83
<i>EM.PA.0040.A014.01 C-400 Complex Demolition (C-400 Building Only)</i>	83
EM.PA.0040.A014.01.DR.04, 06, 08, 10 CERCLA Documentation	84
<i>EM.PA.0040.A008.41.DR SURVEILLANCE AND MAINTENANCE</i>	86
EM.PA.0040.A008.41.DR.01 Surveillance and Maintenance of Facilities	86
EM.PA.0040.A008.41.DR.01. Remove Contents and Fill Solid Waste Management Unit 513 Sump	88
EM.PA.0040.A008.41.DR.01. Sample, Remove Contents, Fill, and Cap Solid Waste Management Unit 20 Lagoon	89
EM.PA.0040.A008.41.DR.01.02.06, C-310 Dry Hybrid Installation	90
EM.PA.0040.A008.41.DR.02 Facility Roofs	91
<i>EM.PA.0040.A008.42.DR UTILITIES OPERATIONS</i>	92
EM.PA.0040.A008.42.DR.01 Utility Operations	92
EM.PA.0040.A008.42.DR.02 Steam, Chilled Water, Compressed Air, & Waste Heat Systems	93

EM.PA.0040.A008.42.DR.03 Water Systems.....	94
EM.PA.0040.A008.42.DR.04 Electrical Power Distribution.....	96
EM.PA.0040.A008.42.DR.04.01 Electrical Power Operations and Deactivation of Switchyards.....	96
EM.PA.0040.A008.42.DR.04.01.03 Develop Switchyard Equipment Catalogs	98
<i>EM.PA.0040.A008.42.DR.04.01.06.01 Characterize C-535 Switchyard Equipment.....</i>	<i>99</i>
<i>EM.PA.0040.A008.42.DR.04.01.07.01 Characterize C-537 Switchyard Equipment.....</i>	<i>99</i>
<i>EM.PA.0040.A008.42.DR.04.06 Partial Dismantlement of the C-537 Switchyard Including Two 161kV Tie Lines to C-535 Switchyard.....</i>	<i>100</i>
<i>EM.PA.0040.A008.42.DR.04.07 Additional Switchyard Equipment Dismantlement.....</i>	<i>103</i>
EM.PA.0040.A008.42.DR.05 Sewage Treatment Systems	105
<i>EM.PA.0040.A008.43.DR ANALYTICAL LABORATORY</i>	<i>107</i>
EM.PA.0040.A008.43.DR.01 Analytical Laboratory Operations.....	107
<i>EM.PA.0040.A008.48.DR STABILIZATION AND DEACTIVATION</i>	<i>108</i>
EM.PA.0040.A008.48.DR.01 NDA Characterization for Deposit/Hold-up Removal for the Process Facilities	110
EM.PA.0040.A008.48.DR.01.05 NDA Characterization of C-360 Facility	112
EM.PA.0040.A008.48.DR.01.06 Reserved	112
EM.PA.0040.A008.48.DR.02 Deposit/Hold-up Removal for the Process Facilities	112
EM.PA.0040.A008.48.DR.02.05 Deposit Removal for C-360.....	116
EM.PA.0040.A008.48.DR.02.06 Reserved	119
EM.PA.0040.A008.48.DR.03 C-400 Deactivation	119
EM.PA.0040.A008.48.DR.04 C-746-Q/Q1 Cold Trap Disposition.....	120
EM.PA.0040.A008.48.DR.05 Nickel and ⁹⁹ Tc Microwave Thermal Treatment Technology Study and Evaluation.....	121
EM.PA.0040.A008.48.DR.06 R-114 Freon.....	122
EM.PA.0040.A008.48.DR.06.03 R-114 Transfer Equipment.....	123
EM.PA.0040.A008.48.DR.06.04 R-114 Pre-Disposition Activities	123
EM.PA.0040.A008.48.DR.06.05 R-114 Disposition Off-Site	124
EM.PA.0040.A008.48.DR.06.06 Clean-out and Disposition of Heel in Railcars and ISO Containers	124
<i>C.3 TECHNICAL OPTION WORK.....</i>	<i>124</i>
<i>C.4 IDIQ.....</i>	<i>125</i>
<i>EM.PA.0040.A009.04.DR.01 C-400 Demolition.....</i>	<i>125</i>
<i>EM.PA.0040.A009.04.DR.02 On-Site Waste Disposal Facility (OSWDF) Capital Asset Project</i>	<i>126</i>
EM.PA.0040.A009.04.DR.02.01 OSWDF Cell 1 and Infrastructure.....	127
<i>EM.PA.0040.A009.04.DR.03 ⁹⁹Tc Removal.....</i>	<i>128</i>
<i>EM.PA.0040.A009.04.DR.04 Construction of McCaw Road Bridge</i>	<i>129</i>
<i>EM.PA.0040.A009.04.DR.05 Small Cylinder Disposition</i>	<i>130</i>
Exhibit No. C-1, PDGP Shutdown Cell Status to Support Deposit & Hold-up Removal	132
Exhibit No. C-3, Technetium Data.....	134

SECTION C

Performance Work Statement (PWS)

C. OVERVIEW

The Department of Energy, Portsmouth/Paducah Project Office (DOE-PPPO) is deactivating and remediating the Paducah Gaseous Diffusion Plant (PGDP). This scope of work defines requirements to be completed during the Period of Performance (POP). Activities required during the POP are detailed below and include activities to perform uranium removal, perform ^{99}Tc treatment, and continue optimizing facility systems/structures to minimize short-term and long-term Surveillance and Maintenance (S&M) costs. The Contractor shall make every effort to optimize and reduce S&M costs. DOE is pursuing various alternatives for additional office space to permit deactivation of administrative facilities that have historically high S&M costs, such as C-100 and C-720. The Contractor shall fully support these efforts as part of this performance work statement (PWS). Additionally, the Contractor shall continue implementation of the Environmental Remediation Program as described in the Site Management Plan (SMP) under the Federal Facility Agreement (FFA) for the Paducah Site. As the Contractor is able to optimize and drive down S&M costs, it is anticipated that additional stabilization and deactivation and remediation (D&R) activities may be requested. It is expected that these additional activities will be performed consistent with the available funding for each year. The goal of the additional D&R activities is to reduce risk and accelerate reduction in long-term S&M costs and future demolition costs.

C.1. INTRODUCTION

The PGDP is located on a Federal reservation in Western Kentucky, approximately 10 miles west of Paducah, Kentucky, and 3.5 miles south of the Ohio River. The plant is situated on approximately 3,423 acres without easements divided as follows:

- Approximately 615 acres within a fenced limited security area;
- Approximately 822 acres of support area surrounding the limited security area; and
- 1,986 acres licensed to the Kentucky Department of Fish and Wildlife as part of the West Kentucky Wildlife Management Area.

Additionally, there are approximately one hundred thirty-three acres of off-site easements primarily associated with incoming raw water lines and pumps from the Ohio River, emergency notification sirens, and environmental sampling stations. Bordering the Paducah Site to the northeast, between the plant and the Ohio River, is the Tennessee Valley Authority Reservation where the Shawnee Steam Plant is located.

The PGDP is a Government-owned uranium enrichment plant that was constructed in the early 1950's and operated by the DOE and its predecessor agencies for manufacturing enriched uranium for the fabrication of fuel assemblies to support commercial and military nuclear reactors and to support weapons development activities. Processing operations are currently terminated, and D&R activities are being conducted, but PGDP

still includes Hazard Category 2 Nuclear Facilities primarily based on the uranium inventory in those facilities. Other radioactive materials, such as transuranics, are present and contribute to the hazard categorization of the facilities.

The uranium enrichment program utilizing the gaseous diffusion process produced various hazardous, non-hazardous, and radioactive byproducts. These activities resulted in contamination of equipment, facilities, soil and groundwater with radioactive and hazardous constituents, and the generation of various wastes, including those regulated under the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act (TSCA), and the Atomic Energy Act (AEA). These wastes include construction debris; sanitary waste; Hazardous Waste (HW); radioactive Low-Level Waste (LLW); Mixed Low-Level Waste (MLLW); Transuranic Waste (TRU); and Mixed TRU (MTRU) Waste. The most significant contaminants are Trichloroethene (TCE), radionuclides, and Polychlorinated Biphenyls (PCBs).

TCE and Technetium-99 (⁹⁹Tc) was discovered in residential wells north of the Paducah Site in 1988. There are two off-site groundwater contamination plumes, referred to as the Northwest and Northeast Plumes, and several identified potential on and off-site source areas requiring additional investigation and action. An additional on-site plume has been found to the southwest. A series of Remedial Investigation/Feasibility Studies (RI/FS) were conducted under the FFA, including the evaluation of potential major contaminant sources impacting groundwater and surface water. The project continues to evaluate on-going potential sources of contamination. In accordance with these investigations, DOE implemented interim actions that focused on reducing potential risks associated with off-site contamination. The primary areas that have been associated with the groundwater source remediation are: C-400 Source Remediation; Southwest Plume Sources Remediation; and Burial Grounds Operable Unit.

As a result of the offsite groundwater contamination, the Paducah Site was placed on the NPL in 1994. All site cleanup and remediation activities are conducted in compliance with applicable federal, state, and local laws and regulations. The principal regulating agencies are the EPA Region 4 and the Kentucky Department for Environmental Protection (KDEP).

The approach to site cleanup is outlined in the FFA, where the cleanup is divided into Operable Units (OUs). The OUs are composed of approximately 570 Solid Waste Management Units (SWMUs) which are listed in the Paducah FFA SMP and the RCRA Permit. The active OUs are:

- a. Groundwater OU (GWOU);
- b. Surface Water OU (SWOU);
- c. Soils OU (SOU); and
- d. Burial Grounds OU (BGOU).

DOE entered into an FFA with the EPA and the Commonwealth of Kentucky on February 13, 1998. The FFA established one set of consistent requirements for

achieving comprehensive site remediation in accordance with the RCRA and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including stakeholder involvement. Remediation activities are performed in accordance with the requirements of this agreement.

The Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant defines public involvement for the environmental remediation program.

The Paducah Citizens Advisory Board (CAB), a Site Specific Advisory Board chartered by DOE under the Federal Advisory Committee Act, is made up of individuals with diverse backgrounds and interests. It meets monthly to focus on early citizen participation in Environmental Management (EM) priorities and related issues at the PGDP. The CAB provides advice on on-going and planned projects at PGDP.

Section 3 155 of Public Law 103-160, the National Defense Authorization Act for Fiscal Year 1994, authorized the Secretary of Energy to transfer, for consideration, all rights, title, and interest of the United States in and to personal property and equipment if the Secretary determined that such transfers will mitigate the adverse economic consequences that might otherwise arise from the restructuring of the DOE facility. The Paducah Area Community Reuse Organization (PACRO), is the DOE locally designated entity for the receipt of excess DOE property.

PGDP facilities and its ancillary structures and systems are listed in Section J, Attachment J-18, PGDP D&R Facilities/Areas Assignment of Responsibility. In addition to the four (4) large process buildings (C-331, C-333, C-335, and C-337) and the smaller C-310 Purge and Product Withdrawal Building, the C-315 Tails Withdrawal buildings, the C-360 Toll and Transfer Facility, and C-337-A and C-333-A feed facilities, the remaining structures are support facilities such as steam systems, electrical switchyards, cooling towers, cleaning and deactivation facilities, water and wastewater treatment plants, maintenance and laboratory facilities, and office buildings. Finally, the buildings are served and connected by an extensive network of utilities, systems (such as security controls, public address, fire alarms, utility alarms, and nuclear criticality alarms), roads, and sidewalks.

The Paducah site currently has three (3) prime contractors and a technical support services contractor that support DOE with ongoing activities. The contractors and their respective summary level of scope are described below:

- a. The D&R Contractor is responsible for ongoing deactivation, surveillance, maintenance, environmental remediation activities, and site-wide utilities at PGDP;
- b. The Infrastructure Contractor is responsible for site infrastructure, such as roads and grounds, janitorial services, and security/classification to include Site Officially Designated Security Authority (ODSA) for DOE interests;

- c. The DUF₆ Contractor is responsible for the operation of the Depleted Uranium Hexafluoride (DUF₆) Conversion Plant and management of DOE UF₆ cylinders; and
- d. The Environmental Technical Services (ETS) contractor provides environmental, technical, and administrative support services directly to DOE.

C.1.1. Project Purpose and Scope

The PGDP D&R Project encompasses managing over 650 structures, properties, or buildings (Section J, Attachment J-18) with approximately 7,500,000 ft² of floor space. The Contractor shall perform necessary S&M of these facilities and prepare the facilities for future demolition. The Contractor shall provide utilities to itself and other site tenants as detailed in Section J, Attachment J-12 Government Furnished Services and Items (GFSI). The Contractor shall perform deactivation and decommissioning in accordance with the PWS. The Contractor shall also assist in transfers/assignment of structures, property or buildings to new tenants for purposes of re-use or re-industrialization, as appropriate. The Contractor shall perform all site and facility environmental remediation and waste management, as outlined in this PWS.

The scope of this Contract focuses on the continued deactivation of the PGDP facilities, preparing the facilities for future demolition, and performing environmental remediation activities required by the FFA and SMP.

C.1.2. Objectives and Programmatic Requirements

The Contractor shall achieve the objectives stated below while continuing to maintain compliance throughout performance of this Contract.

- Achieve continuous cost and process improvements and optimization for contract activities.
- Safely, securely, and cost effectively transition ongoing activities at the PGDP to minimize necessary S&M and utility O&M under DOE safety basis.
- While supporting continuity of on-going site cleanup operations, identify and eliminate systems, processes, etc. that are no longer necessary and maintain safe configuration of the facilities. Reduce systems not directly required to maintain safety and environmental compliance. Identify ways to further reduce requirements to perform the most cost effective approach for operations and S&M.
- Actively pursue activities to re-categorize facilities enabling a minimal level of S&M (e.g., Hazard Category 2 to Radiological Facility).

- Operate support facilities at the capacity necessary to safely support site needs.
- Develop, finalize and implement approved environmental remediation under the Paducah FFA.
- Maintain public and worker safety and health, and environmental protection.
- Reduce the overall DOE Paducah landlord costs.
- Comply with all applicable Federal, State, and local laws and regulations, Executive Orders, DOE Orders (and other types of Directives), and Regulatory Permits, Agreements, Orders and Milestones (both State and Federal) (See Section J, Attachment J-4, Requirements Sources And Implementing Documents (List A) And List Of Applicable DOE Directives (List B)).
- Provide all deliverables to DOE in accordance with all requirements of this Contract and those identified in Section J, Attachment J-13, Deliverables.

The DOE and the Contractor recognize the Paducah D&R Project contract is a cooperative undertaking that requires both parties to seek innovative approaches to achieve the end objectives. The continuation of streamlining and optimizing processes that result in elimination of unnecessary requirements are critical to accomplishing the PWS objectives.

The Contractor shall remediate specific areas on the site, complete deactivation activities, and operate the site waste storage facilities to include waste disposition. The Contractor is responsible for implementation of the overall OU strategy in accordance with the SMP, document number DOE/LX/07-1301&D2/R1 and (its subsequent revisions) under the Paducah FFA. Regulatory milestone dates reflect agreement among DOE and the regulators [i.e., the Kentucky Environmental and Public Protection Cabinet (Kentucky) and the United States Environmental Protection Agency Region 4 (EPA)].

C.1.3. Contractor Performance and Key Requirements

The Contractor shall implement a project structure and shall sequence the work to optimize the project schedule to achieve safe, cost-effective work/cleanup of the site while meeting all regulatory milestone dates. The Contractor shall negotiate agreements with the regulators to facilitate site clean-up and minimize waste. No negotiation or agreement shall be made without prior DOE notification and consent. No communication with regulators is authorized without prior DOE notification. The Contractor must evaluate the short-term and long-term cost, schedule, legal and regulatory impact resulting from the proposed

negotiation/agreement. To achieve the objectives stated below, the Contractor shall use its best efforts and shall cooperate in seeking elimination of as many unnecessary requirements as possible while continuing to maintain compliance throughout performance of this Contract.

The Contractor shall furnish all personnel, facilities, equipment, material, services and supplies (except as set forth in this Contract to be furnished by the Government), and otherwise to do all things necessary to accomplish work in a safe, secure (pursuant to 10 Code of Federal Regulations [CFR] 824), integrated, effective and efficient manner. The Contractor shall operate and perform deactivation and S&M activities for the facilities, buildings, trailers, and other structures and facilities (OSF) assigned in Section J, Attachment J-18. The Contractor shall continuously assess opportunities to eliminate systems and facilities, and pursue consolidation of operations and personnel work areas whenever/wherever a cost benefit is derived. The Contractor shall be responsible for planning, integrating, managing and executing the programs, projects, operations and other activities as described in this PWS. Concurrent with the deactivation process, the contractor shall remediate and disposition specific areas on the site, perform facility deactivation and decommissioning, and operate the site waste storage facilities to include waste disposition.

This contract reflects the application of performance-based contracting approaches and techniques that emphasize results/outcomes and minimize “how to” performance descriptions. The Contractor has the responsibility for total performance under this contract, including determining the specific methods for accomplishing the work.

The Contractor shall develop, implement and maintain a comprehensive, resource-loaded Final Contractor Performance Baseline (CPB) as required by Section H.68 and DOE Order (O) 413.3B, and DOE Office of Environmental Management Memorandum “Policy and Protocol for Office of Environmental Management Operations Activities.” The Contractor shall develop a requirements definition for each subproject to allow for accurate cost estimating, realistic schedule development, and the development of subcontract procurement packages. The Contractor shall evaluate all projects to determine if they are operating activities, General Plant Projects, or Capital Asset projects. Once evaluated, the Contractor will properly schedule and cost the project according to the classification.

The Contractor shall provide general operations oversight and project management functions to enable the safe operation of the site. In addition, the Contractor shall be responsible for the operations, environment, safety, health and quality assurance within its own organization and its subcontractors’ organizations. The Contractor shall provide site health and safety oversight for DOE, DOE technical support contractors and, at DOE’s request, other personnel who are on-site in support of the DOE mission at PGDP (e.g., Kentucky Research

Consortium for Energy and Environment (KRCEE) activities). The other major DOE contractors provide health and safety oversight for their activities. Furthermore, training program reciprocity/facility access between site contractors/tenants is required. The Contractor shall also ensure emergency response services are provided and available to all site tenants and shall be responsible for the Emergency Operations Center.

The Contractor shall ensure that its technical approach and execution of work is compliant with the applicable statutory and regulatory requirements and shall annually certify and provide to DOE its compliance with environmental requirements. The Contractor shall comply with and provide DOE with services necessary for its compliance with all applicable federal, state, and local requirements and agreements including the protection and preservation of cultural, historic, or archeological resources. The Contractor shall be responsible for all work necessary to obtain regulatory acceptance including legal/regulatory reviews and comment resolution. The Contractor shall recognize and work within the constraints imposed by this Contract and other regulatory agreements between DOE and regulatory agencies. Regulatory documents include, but are not limited to, all applicable laws, regulations, permits, plans, orders, and agreements.

The Contractor shall integrate all activities with other DOE contractors/tenants in areas of joint interface. The site contractors participate in a periodic coordination meeting called the Share Site Committee to address ongoing activities, reduce conflicts and coordinate schedules, and reinforce integration requirements. The Contractor shall lead the site's shared site committee and manage the shared site process.

The Contractor shall be the single point of accountability for the Paducah D&R Project activities, regulatory and DOE-EM interface, and project management in performance of this Contract.

If the Contractor submits a deliverable that DOE determines does not comply with the terms of the contract or regulatory requirements, including but not limited to, laws, regulations, orders, permits, plans, or agreements, the Contractor's revision or correction of the document/submittal shall be at no additional cost to DOE (See Section H.69 Unallowable Cost). This determination shall be at DOE's sole discretion. DOE notes that this compliance determination does not apply to the overall quality of the document (e.g. word processing) unless the errors impact the function and understanding of the document. If all of the contractual requirements are met such as timing of the submittal, inclusion of information required, factual accuracy, etc. are provided, the document will be accepted. Further DOE requires that all submittals to DOE be final documents (even though the Contractor may expect comments from DOE) and shall be signed and certified when applicable so that DOE understands the approving Manager has read and agrees that the deliverable is technically correct, complies with the contract and applicable DOE Orders, and can be implemented without further action.

C.1.4. General End State Requirements

The applicable deliverables are provided in the PWS and Section J, Attachment J-13 Deliverables. The Contractor shall comply with all deliverables dates and all regulatory milestone dates. Regulatory milestone dates can be found in documents such as the FFA, SMP, Agreed Orders, TCSA, Federal Facility Compliance Agreement (FFCA), and regulatory permits. Deliverables without specific dates identified shall be established by the Contractor during CPB development and throughout the Contract's period of performance as approved by DOE. Changes to regulatory milestones do not alleviate Contractor responsibility to meet contractual or CPB milestone dates without specific approval by DOE.

C.1.5. Programmatic or Site Requirements Documents

Table C.1.5-1 General Project Programmatic or Site Requirements Documents*	
Document Number	Title
CP1-NS-3000, R2	Documented Safety Analysis for the Department of Energy Paducah Site Deactivation Project
CP1-NS-3001, R1	Technical Safety Requirements for the U.S. Department of Energy Paducah Site Deactivation Project
BJC/PAD-462/R10	Documented Safety Analysis for the C-746-Q Hazardous and Low-Level Waste Storage Facility, Paducah Gaseous Diffusion Plant, Paducah, Kentucky
BJC/PAD-498/R11	Technical Safety Requirements for the C-746-Q Hazardous and Low-Level Waste Storage Facility, Paducah Gaseous Diffusion Plant, Paducah, Kentucky
DOE/OR/07-1707	Paducah Gaseous Diffusion Plant Federal Facility Agreement
DOE/LX/07-2401&D2/R1	Community Relations Plan, May 2016
DOE/OR/07-1595&D2	Data and Documents Management and Quality Assurance Plan for Paducah Environmental Management and Enrichment Facilities, September 1998
Office of Environmental Management Memorandum	Policy and Protocol for Office of Environmental Management Operations Activities, March 15, 2012
No document number	Training Reciprocity Agreement Between Portsmouth/Paducah Project Office Prime Contractors (example)
BJC/PAD-688/R1	Cultural Resources Survey for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, March 2006
DOE/OR/07-0107&D2/R7/V1	Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Volume 1. Human Health, June 2016
DOE/OR/07-0107&D2/R2/V2	Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Volume 2. Ecological, June 2015
DOE/LX/07-1269&D2/R2	Paducah Gaseous Diffusion Plant Programmatic Quality Assurance Project Plan, March 2015

Table C.1.5-1 General Project Programmatic or Site Requirements Documents*	
Document Number	Title
DOE/LX/07-1301&D2/R1	Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision-FY 2015, May 2015

**Table is not all inclusive applicable requirements documents. As documents are updated, the most current version will replace the versions identified in this table.*

C.2.WORK TO BE ACCOMPLISHED

EM.PA.0040.A001.06.DR PADUCAH CONTRACTOR TRANSITION

EM.PA.0040.A001.06.DR.01 Transition

Transition shall be 121 days consistent with Section L. The NTP may occur simultaneously with the contract award date and the Contractor shall be prepared to fully mobilize when the NTP is issued.

EM.PA.0040.A001.06.DR.02 Implementation

The Contractor shall perform all activities to support transition, including, but not limited to, facility walk-downs, engineering and design, procurement, review and acceptance or revision of safety authorization basis, programmatic and operational documents and procedures, and assisting DOE in verifying whether transition requirements have been met prior to the end of transition.

The Contractor shall perform a due diligence review of the facilities, systems, and environmental conditions within its assigned area of responsibility. The Contractor shall provide a written declaration to DOE, of its formal acceptance of responsibility for the assigned scope, facilities, and environmental/regulatory conditions.

The Contractor shall mobilize its Transition Management Team (comprised of the Program Manager, all other Key Position personnel identified in the Contract, and the Human Resource and Business Services personnel necessary to immediately begin transition activities) to site not later than 7 days after NTP. The Contractor shall determine the number of Human Resource and Business Services personnel necessary to support transition. The objective of the transition period is to establish safety, operations, business, and human resources operations that will enable the Contractor to deliver requirements on time and within established funding. At a minimum, the Contractor shall complete the following within the transition period:

- a. Transition of responsibility for all facilities, facility operations, and environmental permits,
- b. Due diligence walk downs and assessments of facilities and other areas,
- c. Modification and DOE approval (as required) of existing program documents (e.g., Worker Safety and Health Program Plan, Nuclear Critical Safety Program, ISMS Description, etc.) see Section J, Attachment J-13 for full listing,
- d. Modification and DOE approval (as required) of authorization basis documents,

- e. Hiring, training, and transfer of clearances for all required staff,
- f. Establish procurement processes for materials, equipment, supplies, parts, and subcontractors for a seamless transition,
- g. Acceptance of any contracts, and
- h. Any other actions necessary to enable the Contractor to formally accept responsibility for the entire PWS at 121 days after NTP.

Within 48 hours following the NTP, the Contractor shall release on its own website a brief Executive Summary of its offer and must meet the H.40 requirements. The purpose of this Executive Summary is to provide immediate release of relevant information to stakeholders and the public at large. It should include the following elements:

- a. Name of Contractor including the identification of any Teaming Partners and Major/Critical Subcontractors (if applicable) and a description of the experience that each brings to the project;
- b. Summary/Description of Contractor's Technical Approach (e.g., planned accomplishments, cost savings anticipated);
- c. Organizations Structure and Identification of Key Personnel;
- d. Commitments to the Community;
- e. Total Contract Value Commitment to Small Business Subcontracting; and
- f. Brief overview of Contractor's Past Performance (i.e., success stories).

The Contractor shall submit a Transition Plan for DOE approval within 15 days after NTP. The Transition Plan shall include a description of all activities necessary for the Contractor to assume full responsibility for the PWS at 121 days after NTP. The Transition Plan shall include a detailed transition schedule with identified critical path.

The Contractor's Transition Plan shall include a description of the Contractor's implementation of human resources management consistent with Workforce Transition and Contractor Human Resources Management requirements as described in Section H, Clauses H.4 through H.7, including:

- a. Expected workforce composition and any immediate or anticipated workforce restructuring;
- b. Identification of any existing issues under the National Labor Relations Act (NLRA) and its plan for engaging with any labor representatives;
- c. A schedule for preparation and submission of any bargaining parameters requests;
- d. Identification of any prevailing wage requirements, including any requirements under section 4(c) of the Service Contract Labor Standards statute as well as any NLRA requirements with respect to determination of wages and benefits;
- e. Description of processes for handling labor standards determinations for work packages;
- f. Define any obligations with respect to pension and post-retirement benefit plans;

- g. A plan for identification and resolution of any legal issues regarding any of the above, including the Contractor's plan for engaging outside counsel, if needed; and
- h. A plan for communicating with DOE on these matters.

The Transition plan shall also include: all deliverables, documents, and items that the Contractor is required to submit to DOE (including DOE review periods); the planned submittal dates compliant with contract requirements; and the Contractor's responsible person(s) with his/her contact information. The Contractor is required to give DOE at least 2 weeks to review and comment on all documents submitted during the 121 day Transition Period. Any agreement that requires DOE consent will be subject to a 30 calendar-day review and approval period unless a longer review/approval period is warranted due to the size and complexity of the document. The Transition Plan shall also specifically address all actions necessary to complete items EM.PA.0040.A001.06.DR.02 a. through g. (transition plan requirements above). Coordination with other site contractors/tenants is required to ensure continuation of services by the Contractor as identified in the Section J, Attachment J-12, Government Furnished Services and Items Requirements Matrix. The Plan must ensure there is no loss or degradation of the services that are provided to DOE and its contractors/tenants. Included in this plan, the Contractor shall resolve and gain DOE acceptance of their resolution for all gaps that exist between the Contractor's transition plan and the incumbent contractor's operations turn-over plan(s). The Contractor shall be provided the incumbent contractor's Task Order Close-out Plan no later than 45 days after NTP.

The Contractor is responsible for ensuring that all necessary transition activities are identified and completed during the Contract Transition Period. The Contractor shall provide weekly Transition Status Reports to DOE until Contract transition is completed. The Contractor shall establish routine status meetings with DOE and affected contractors to review Implementation activities and issues.

The Contractor shall become a signatory to the existing co-generator agreement with DOE (referenced in Section J, Attachment J-19). The Contractor shall put into place any agreements it deems necessary between it and other site contractors or any subcontractors for provision of services. Any agreement that requires DOE consent will be subject to a 30 calendar-day review and approval period unless a longer review/approval period is warranted due to the size and complexity of the document.

In accordance with Section H.68, the Contractor shall submit an Initial CPB that matches the Contractor's proposed total contract value and provides work planning and costs for ALL PWS elements within seven days from the NTP (at the lowest level WBS for cost tracking and reporting and referenced to a CLIN level). Additionally, in accordance with Section H, the Contractor shall submit a Final CPB for DOE approval not later than 6 months from NTP, which provides work planning, measurement, and management details and must be resource loaded at the lowest level WBS for cost tracking and reporting. Where appropriate, information must be

updated in the Facility Information Management System (FIMS) to ensure consistency for facility maintenance cost projections.

Table C.2.EM.PA.0040.A001.06.DR.02-1 Contract Transition Milestones/Schedule	
Milestone	Date
Executive Summary Placed on Website	Within 48 hours after NTP
Complete mobilization of Transition Management Team	Within 7 days after NTP
Submit Contract Transition Plan	Within 15 days after NTP
Submit Initial CPB	Within 7 days after NTP
Modify all existing regulatory permits to reflect new Contractor	As stipulated by regulation, statute, law, or permit requirements AND prior to conclusion of Transition
Weekly Transition Status Reports	Weekly, through transition
Operational Responsibility Acceptance Declaration	Within 121 days after NTP

EM.PA.0040.A001.06.DR.03 Environmental Compliance Review

The Contractor shall complete a comprehensive environmental compliance due diligence review, certify the results of the review and provide a copy of the report to DOE. At a minimum, this certification shall include, but is not limited to:

- List of site conditions that pose a potential compliance risk for DOE and/or the Contractor;
- Declarative statement, by the Contractor, of acceptance of site environmental, waste, and permit conditions, with noted exceptions; and
- Evidence that all existing site environmental permits have been modified to identify the Contractor as an operator.

Table C.2.EM.PA.0040.A001.06.DR.03-1 Environmental Compliance Review Milestones/Schedule	
Milestone	Date
Environmental Compliance Review	Within 60 days after NTP

EM.PA.0040.A001.06.DR.04 Material Differences

The Contractor shall identify any material differences in the systems, facilities, waste sites, property and services described in this PWS and actual conditions. The Contractor shall prepare and submit a Statement of Material Differences. The material differences statement provided to DOE must include the specific material(s) difference tracked to the specific contract section(s) that are impacted and specifically identify the sections of the Contractor's proposal (Technical and Cost Volumes) that conflict with the site conditions and any/all reference material that the Contractor is relying on. Poor or inaccurate Contractor assumptions do not constitute a material difference.

Table C.2.EM.PA.0040.A001.06.DR.04-1 Material Differences Milestones/Schedule	
Milestone	Date
Material Difference Statement	Within 60 days after NTP

EM.PA.0011.A001.01.DR POLYCHLORINATED BIPHENYLS (PCBs)

PCBs were used as part of the uranium enrichment process. The lube oil system in the PGDP facilities leaked oil that migrated into the ventilation systems and came into contact with PCB impregnated gaskets. Although the lube oil has been removed from the lube oil system, residual lube oil remains in the ventilation system and continues to leak. Additionally, as a result of the shutdown of enrichment operations, water in-leakage (primarily rain intrusion) has resulted in water entering the ventilation system and coming into contact with the PCB impregnated gaskets. These systems occasionally leak due to age, vibration, and thermal cycling. Troughs and a collection system have been installed under the areas that have a high potential to leak. There are over 16,000 PCB collection troughs (ranging from 4½ to 6 feet in length) installed inside the cascade buildings (e.g. C-310, C-315, C-331, C-333, C-335, and C-337). There are approximately 260 collection points associated with the troughing system. The process buildings cover approximately 6,400,000 square feet of floor space. Lube oils contaminated with PCBs from the gaskets are continuously collected and dispositioned; maintenance of the trough system is ongoing. PCB lube oils that leak or spill are collected, cleaned-up, sampled, and properly disposed.

EM.PA.0011.A001.01.DR.02 Polychlorinated Biphenyls (PCBs) Operations

The Contractor shall perform all activities below:

- a) Perform surveillance and maintenance of the PCB collection and containment trough system including disposition of the collected PCB lube oils/water to the extent necessary. As facilities are shutdown or deactivated the Contractor shall determine how to comply with the *Modification to the February 20, 1992, Compliance Agreement between the United States Department of Energy and the United States Environmental Protection Agency, Washington, D.C.* (Modified 1992 TSCA Compliance Agreement) without daily/weekly/monthly access to the process buildings. Since the lube oil has been removed from the originally installed equipment (still present in lube oil skids supporting P&E pump operations for deposit/holdup removal), the source of liquids is residual oils from leaks in the ventilation system or water in-leakage through the roofs.
- b) The Contractor shall develop and implement a process to mitigate the continued migration of liquids in the ventilation systems.
- c) The Contractor is required to develop and implement a PCB mitigation plan.
- d) The Contractor shall clean up, sample, and decontaminate PCB spills and leaks, sample and analyze spill sites (estimated to be 40 small spills per year), and properly disposition the PCBs and PCB contaminated material (e.g., absorbent pads and pigs).
- e) The Contractor shall collect annual air quality data throughout the process buildings with motor exhaust systems (C-331, C-333, C-335, and C-337). Two

- (2) samples will be taken per process building per year anytime during the months of June, July, and August as required by the Modified 1992 TSCA Compliance Agreement and submit results in the Annual Compliance Agreement Report.
- f) As the Contractor implements actions to deactivate and isolate facilities, the Contractor shall evaluate the requirements under the Modified 1992 TSCA Compliance Agreement and determine how to comply with or modify the agreement in order to minimize cost to DOE and place the facilities in long-term S&M at minimal annual cost to DOE.
- g) The Contractor shall annually update and submit to DOE the Integrated Schedule TSCA Agreement Work, Current FY, FY+1 and FY+2 and the Long Term Schedule of TSCA Agreement Work, FY+3 to Completion. The Contractor also shall prepare materials for and participate in the Annual TSCA Agreement Meeting. The Contractor will be expected to document meeting minutes and submit them to DOE for review.

Table C.2.EM.PA.0011.A001.01.DR-1 PCB Requirements Documents	
Document Number	Title
N/A	Modification to the February 20, 1992 Compliance Agreement Between the United States Department of Energy and the United States Environmental Protection Agency, Washington, D.C. Toxic Substance Control Act (Modified 1992 TSCA Compliance Agreement)

Table C.2.EM.PA.0011.A001.01.DR-2 PCB Milestones/Schedule	
Milestone	Date
Develop and implement a PCB mitigation plan	30 days after Transition is Complete
Annual Compliance Agreement Report to the EPA in accordance with the Modified 1992 TSCA Compliance Agreement	Annually Initial Due Date: June 1 Final to DOE for signature: June 23 Due to regulators July 1
UE TSCA Quarterly Report, including PCB spill cleanup activities. In addition to the required quarterly report, submit to DOE for information any air sampling results and PCB waste information from the quarter that would be included in the next annual report.	Initial Due: Feb 1, May 1, August 1, November 1 Final Due: Feb 15, May 15, August 15 November 15
Material Package for Annual Meeting	Annually Draft Due June 1 Final Package Due July 1
Annual Meeting Minutes	Annually, as requested
Integrated Schedule of TSCA Agreement Work for Current FY, FY+1 and FY+2	Annually Initial Due Date: June 1 Final Due for signature: July 1 Due to regulators August 1
Long Term Schedule of TSCA Agreement Work for FY+3 to Completion	Annually Initial Due Date: June 1 Final Due for signature: July 1 Due to regulators August 1

EM.PA.0020.A001.03.DR SAFEGUARDS AND SECURITY

The Infrastructure Contractor is the Officially Designated Security Authority (ODSA) at the Paducah site and considered to be the ODSA pursuant to current DOE directives. As such, it has the primary role for security functions for DOE operations consistent with the scope of the Infrastructure Contract. The ODSA develops and maintains the site security program including the Paducah Site Security Plan (SSP).

The ODSA has the primary responsibility for evaluation of the security posture of the DOE mission at the Paducah Site including, but not limited to asset identification, threat assessments, and risk assessments/vulnerability analyses. The risk assessments/vulnerability analyses may be delegated to the Contractor by the DOE Site Lead or ODFSA. This delegation would be to support the Contractor scope in the event the ODSA does not have the particular skill set on staff or available to perform the work. The ODSA develops the protective strategy for DOE assets at the Paducah Site on a graded basis in accordance with DOE directives, with input and concurrence from the Contractor. ODSA documents the protective strategy in the SSP including, but are not limited to access control, the protection of classified matter, unclassified controlled information (UCI), nuclear material, protective force (PF), personnel security, Security Condition (SECON) measures, and government property. ODSA provides protection requirements to the PF Organization, with input and concurrence from the Contractor, for the protection of DOE assets including classified matter, non-conformance storage, and nuclear materials in accordance with the DOE-approved SSP, Orders, regulations, and laws.

The Contractor is responsible for conducting operations in accordance with the approved security plans supporting their contract responsibilities consistent with the DEAR Clause 952.204-2, Security, of their contract and applicable DOE directives specified in their contracts.

Table C.2.EM.PA.0020.A001.03.DR-1 Security Programs Requirements Documents	
Document Number	Title
Addendum B of the 2014 Site Security Plan	<i>Interim Compensatory Measures for De-leased Non-Conforming Storage of Classified Matter at the Paducah Site, Paducah, Kentucky</i>
NA	Compliance Assessment for Non-Conforming Storage of Classified Matter at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky
	Paducah Site Security Plan (SSP).

EM.PA.0020.A001.03.DR.01 Security Program

Security plans supporting D&R work required by this Contract shall be prepared by the ODSA in consultation with the Contractor, who shall also be a signatory to the documents. The Contractor shall ensure that the Security Plans meet both near term and long term operational needs prior to signature and shall provide sufficient time

and coordination with the ODSA to meet Contractor schedules. The Contractor will be provided sufficient time by the ODSA to review the document prior to comments and/or signatures.

The ODSA has the responsibility to develop, implement, and maintain an Incidents of Security Concern (IOSC) Program. The ODSA also provides the Inquiry officials for the contractor's facility code. The PGDP D&R Contractor shall notify the ODSA of all potential IOSCs at the site or related to the implementation of this Contract. The ODSA is responsible for providing a site consolidated report on IOSCs to DOE Officially Designated Federal Security Authority (ODFSA). The ODSA provides personnel security (e.g., clearance processing) and badging services for DOE Contractors at the site.

The ODSA is responsible for DOE information security at the site including both classified and unclassified sensitive information. The ODSA maintains a Classification Officer and supporting staff for all DOE classification activities at the site. Derivative classifiers are trained and appointed by the ODSA Classification Officer. The Contractor is responsible for providing its own derivative classifiers, as necessary, to support implementation of this Contract.

The Contractor shall perform all activities to:

- a. Comply with site requirements to ensure appropriate levels of protection against: unauthorized access; theft, diversion, loss of custody of special nuclear material; espionage; loss or theft of classified matter or Government property; and other hostile acts that may cause unacceptable adverse impacts on national security or the health and safety of DOE and its Contractor employees, the public, or the environment.
- b. Ensure representation on the Performance Assurance Program (PAP) Committee.
- c. Maintain a Performance Testing Program and provide all results to the ODSA for incorporation into the PAP.
- d. Ensure operations are fully consistent with all approved security plans applicable to the Contractor programs including, but not limited to facility security, physical security, cyber security, Operations Security (OPSEC), and information security.
- e. Ensure representation on the OPSEC Committee.
- f. Develop, implement, and manage a fully compliant PF operation in accordance with DOE directives including, but not limited to, DOE O 470.3C, "Design Basis Threat (DBT) Policy."
- g. Promptly prepare and submit requests for DOE access authorizations for personnel access to classified matter consistent with the provisions of the Contract Security Classification Specification (CSCS) approved for work under this Contract. The ODSA performs the processing of the security clearance applications, and coordinates with the cognizant personnel security office.

- h. Provides an information security program commensurate with the ODSA Information Security Program to include types of information available on-site, such as, but not limited to, proprietary, Privacy Act, Unclassified Controlled Information (UCI), Export Control Information (ECI), Personally Identifiable Information (PII), official use only (OUO), classified and Unclassified Controlled Nuclear Information (UCNI). The Contractor shall coordinate all information security programs with the ODSA who shall adjudicate classification issues.
- i. Notifies the ODSA of potential Incidents of Security concern.
- j. Ensure an adequate number of Contractor personnel are designated as derivative classifiers and/or UCNI/ECI (Export Controlled Information) reviewers in support of the Contractor's project needs.
- k. Comply with ODSA security plans. The Contractor has the responsibility to recognize situations in which it shall need to request or develop security plans and work with the ODSA as appropriate to get those plans in place prior to performance of work.
- l. Comply with 10 CFR 824.
- m. Complete the Initial Survey prior to transition from the current Deactivation/Remediation Contractor. The Initial Survey is a comprehensive review of the security status at a facility that is a candidate for a Facility Security Clearance (FCL) conducted to determine whether the facility in question meets established standards for the protection of the security interests and activities to be covered by the FCL.

Table C.2.EM.PA.0020.A001.03.DR.01-1 Security Programs Milestones/Schedule	
Milestone	Date
Submit the Protective Force SSP section to the ODSA	90 days after NTP and Annually thereafter in a schedule agreed to by the ODSA
Successfully complete Initial Survey	At least 30 days prior to the end of Transition Period

EM.PA.0020.A001.03.DR.02 Protective Force Services

The Contractor shall ensure a Protective Force (PF) program compliant with DOE Orders, regulations, and laws. Upon transition of the PGDP facilities and associated realty, the Contractor shall provide PF services for protection of DOE site property and projects in accordance with the Site Security Plan. The Contractor shall maintain a sufficient security staffing plan to ensure all mission requirements (e.g. active shooter, posts, alarm monitoring, patrols) can be met along with all DOE order program requirements. These numbers may be a combination of Security Officers (SO), fixed post readiness Security Police Officer (SPO) or SPO I personnel. Appropriate number of non-uniformed security staff and management should also be sufficient to ensure full implementation and execution of all applicable security programs consistent with this scope and the DOE PF programs.

The Contractor shall maintain a trained PF and shall provide all necessary equipment for use by the workforce (e.g. weapons, body armor, and masks). Basic Security Police Officer Training must be completed by new hires within six months of employee start date. The Contractor shall utilize and maintain site facilities, including training facilities, portals, etc. to implement and maintain compliance with the Site Security Plan.

The Contractor shall develop, in consultation with the ODSA, the PF Section of the SSP and provide it to the ODSA. The Contractor will conduct self-assessments of the PF program and provide annual roll-up self-assessment reports and any resulting corrective action plans to the ODSA for inclusion in the Annual Comprehensive Site Assessment Report submitted to the DOE ODSFA.

The Contractor shall ensure any mitigating actions deemed necessary by the ODSA or other approved security plans, are in place and properly executed, for any existing non-conforming storage, or any newly discovered non-compliant storage, until compliant storage can be achieved.

The Contractor shall develop and execute annual force-on-force exercises. The Contractor shall ensure it is appropriately staffed including the active shooter scenario, for all facilities and areas on the PGDP reservation. The contractor shall provide staff for 24/7 site alarm monitoring provided to DOE assets. The Contractor shall provide routine access to the DOE Infrastructure Contractor and the DUF₆ Contractor into the Limited Area or other security areas of the Plant in support of their operational needs. Non routine access or special project work shall be staffed at times and locations agreed upon by the Contractor in advance.

The Contractor shall submit quarterly reports documenting overtime hours worked for each Security Police Office (SPO) for that quarter and the projected overtime hours required for the subsequent quarter.

Table C.2.EM.PA.0020.A001.03.DR.02-1 Security Programs Milestones/Schedule	
Milestone	Date
Submit Self-assessments Report of Protective Force program and resulting corrective action plans	12 months after conclusion of Transition and Annually thereafter
Submit SPO overtime hours report	Quarterly after transition
Submit Pro Force Qualifications Data	March 25 th and September 24 th Annually.
Submit Workplace Violence and Active Shooter Training Reports	Annually
Submit Force on Force After Action Reports	45 days after Force on Force Action
Submit Cooperative Agreements with Non-DOE Law Enforcement Agencies	Annually
Submit Security and Emergency Management Performance Metrics Reports	Quarterly

EM.PA.0020.A001.03.DR.03 Security Infrastructure

EM.PA.0020.A001.03.DR.03.01 New Firing Range

The Contractor shall complete the site soil survey for the designated location of the firing range and submit a copy of all data and reports associated with the survey. The Contractor shall submit a 30% design package to DOE for review and comment. All designs and associated information, procurement files including current bids, emails, project files, and files related to planning and design of any of the security infrastructure will be submitted to DOE electronically in native file formats on CD. The full procurement file for any active procurements shall also be provided in hardcopy. All work is to be performed utilizing PA-0020 funding.

Table C.2.EM.PA.0020.A001.03.DR.03.01-1 New Firing Range Milestones/Schedule	
Milestone	Date
Submit Firing Range 30% Design Package	January 28, 2018

EM.PA.0020.A001.03.DR.03.02 Institute Limited Area Islands

All designs and associated files, emails, project files, and other documents related to planning and design of any of the security optimizations will be submitted to DOE electronically in native file formats on CD.

Contractor shall address the need for C-300, C-710 Barrier Lab, and C-720 Seal Shop as possible islands of security. A strategy/report with justification and applicable costs for usage, relocation or elimination (as appropriate) shall be provided by the Contractor.

Table C.2.EM.PA.0020.A001.03.DR.03.02-1 Institute Limited Area Islands Milestones/Schedule	
Milestone	Date
Submit C-300, C-710 Barrier Lab, and C-720 Seal Shop LA Strategy Report	121 days after NTP

EM.PA.0020.A001.03.DR.03.03 Protective Force Facilities

All designs and associated files, emails, project files, and planning files related to planning and design of any of the security optimizations will be submitted to DOE electronically in native file formats on CD.

EM.PA.0040.A001.01.DR ENVIRONMENTAL MONITORING PROGRAM

EM.PA.0040.A001.01.DR.01 Environmental Monitoring and Reporting

The Contractor shall perform programmatic Environmental Management System functions. This includes ongoing environmental monitoring of on-site and off-site air, soils, and water, and reporting the results to DOE and regulators. This activity also includes all activities to maintain, repair, or replace the equipment used in support of this work element.

In order to protect the health and safety of the on-site workforce, the public, and the environment, monitoring of on-site and off-site air, soils, and water is continuously performed. Agreements with the regulators have been made on the scope of the exiting EM program. It is DOE's goal to continuously optimize the monitoring requirements through agreements with the regulators; however, the Contractor must obtain DOE and/or regulatory approval prior to reducing any monitoring activities.

The Contractor shall perform all activities to:

- a. Coordinate with other site contractors to prepare appropriate transmittals and applications for any new operating and environmental permits, agreements, licenses, contracts, etc. for DOE owned/contractor operated facilities, systems, or processes.
- b. Monitor and maintain the structural integrity of approximately 330 groundwater monitoring wells as identified in Appendix B of the current Environmental Monitoring Plan (EMP), CP2-ES-0006/R0. Well maintenance includes, but is not limited to, replacing broken concrete pads surrounding the wells; repairing, replacing, extending the outer protective steel casing; repairing, replacing, installing vehicle guard posts around the wells; repairing and replacing casing covers, lock hasps, and hinges on outer protective casings; drilling weep holes in the outer protective casing; and painting the outside of the outer protective casings, including well rehabilitation or replacement, and abandonment as required.
- c. Monitor and maintain all of the site's outfalls, seeps, in-stream surface water locations, and sediment monitoring locations. Perform all outfall maintenance (except mowing which will be provided by the Infrastructure Contractor).

- d. Conduct dosimetry monitoring at an estimated 40 locations including deploying, purchasing, and analyzing dosimetry; aquatic and other biological monitoring; and landfill surface water and leachate monitoring.
- e. Manage the C-746-K and C-404 burial grounds in accordance with their O&M/Permit requirements, including collecting and analyzing leachate, conducting monthly inspections and providing corrective maintenance as required. This includes cap maintenance (except mowing which will be provided by the Infrastructure Contractor) and management of the leachate collection sump at C-404. Additionally, the Contractor shall ensure the surface water OU O&M plans are met (e.g., interim corrective measure activities) and updated as needed.
- f. Execute the Water Policy (interim control measure) to include management of license agreements (an estimated 101) with local residents and businesses to supply municipal water and license agreements (an estimated 10) to allow DOE to access and sample off-site monitoring and residential wells. Compliance with Water Policy would include annual verification that groundwater within the Water Policy Box is not being used. This verification shall include at minimum a visual inspection of well heads. Results of the annual verification shall be included in the Water Policy Annual Due Diligence Report.
- g. Evaluate the available groundwater data and establish the technical and regulatory basis to reduce the size of the Water Policy Box, while maintaining the same level of protectiveness to members of the public. The Contractor shall collect any additional data required to support its technical position. The Contractor shall develop and submit all required regulatory documents for reducing the size of the Water Policy Box. Additionally, upon regulatory approval, the Contractor shall implement the reduction, including working with the licensees and the West McCracken Water District to eliminate DOE costs for water services (e.g., both the licenses, as well as the applicable ratio/portion of the bleed line costs). The Contractor shall ensure that all stakeholders are provided sufficient notice and informed of all changes at least one (1) year prior to implementation and that DOE reviews all communications to stakeholders. The Contractor shall gain DOE approval of the technical basis and regulatory submittals prior to submittal of any required regulatory documents to the regulatory agencies.
- h. Maintain and update as necessary, the license agreement with Kentucky Fish and Wildlife for management of the approximately 1,986 acres of DOE property not in the industrialized portion or buffer area of the plant. (REEMCBCDOE-03-12-0701)
- i. Operate and maintain the Paducah contribution to the PPPO Environmental Geographic Analytical Spatial Information System. Provide a web-based version for access by regulators, Citizens Advisory Board members, and the public.
- j. Perform all environmental monitoring tasks necessary to support all site activities, including but not limited to sample collection, and analysis as necessary to prepare and submit reports.

- k. Monitor all SWMUs in accordance with the RCRA permit and FFA document requirements.
- l. Maintain, input, create reports on, and complete all other activities necessary to manage environmental data generated by the Contractor's activities and data provided by other site Contractors. Ensure the data is current, complete, and compliant with Contract requirements. This includes management of databases (e.g., Oak Ridge Environmental Information System (OREIS), Geographical Information System (GIS), PEGASIS External Web Access System, Paducah Project Environmental Measurement System (Paducah PEMS)) transitioned to the Contractor or included as part of any regulatory agreement(s). This also includes maintaining the site groundwater modeling program(s) and support of routine groundwater modeling meetings with EPA and KDEP.
- m. Provide SWMU notifications for work in all SWMUs at PGDP in compliance with all legal requirements.
- n. Conduct CERCLA Five Year Reviews in accordance with the Federal Facility Agreement including necessary field activities to prove protectiveness (e.g., vapor intrusion screening).
- o. Update, maintain, and comply with the existing Paducah Site Treatment Plan (STP) and obtain DOE approval of the STP prior to submittal to the regulators.
- p. Perform site-wide environmental regulatory management for all site-wide permits, permit applications; site-wide NEPA documents; site-wide environmental reports, etc. The Contractor shall administer the site program, provide required environmental information to support regulatory compliance, and comply in areas under its cognizance, including NEPA. The Contractor shall provide required air and liquid effluents and near facility environmental monitoring; and collect, compile, and/or integrate air and liquid effluent monitoring data from operations and activities under its control. The Contractor shall develop and submit for approval the Annual Paducah Environmental Report and integrate its environmental permitting and regulatory compliance activities with the Paducah-wide permitting and compliance framework.
- q. Collect ambient air monitoring data to verify radionuclide levels in off-site ambient air in accordance with the current Paducah Gaseous Diffusion Plant Department of Energy National Emissions Standards for Hazardous Air Pollutants (NESHAP) Management Plan. The Contractor shall maintain the air monitors and collect radionuclide samples surrounding the plant to capture airborne radionuclides emitted from all sources including fugitive and diffuse sources.
- r. Manage the C-613 Sedimentation Basin in accordance with the Operations and Maintenance Plan, including all required sampling and analysis.
- s. Perform any Clean Air Act (CAA) Title V or associated permit sampling/monitoring and analysis and complete required reports. The current CAA Title V is between the Commonwealth of Kentucky and the current

deactivation contractor. These activities are only required if the permit is determined to be necessary and transferred to the Contractor.

- t. Ensure compliance with NEPA and support DOE in the NEPA evaluation process as appropriate.
- u. Submit to DOE the required reports/documentation in accordance with Section J, Attachment J-13, Deliverables.

Table C.2.EM.PA.0040.A001.01.DR.01-2 Environmental Monitoring and Reporting Requirements Documents	
Document Number	Title
CP2-ES-0006/R0	Environmental Monitoring Plan, Fiscal Year 2016, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, January 2016
Commonwealth of Kentucky Permit Number KY0004049	Kentucky Pollutant Discharge Elimination System Permit Number KY0004049 for the Paducah Gaseous Diffusion Plant/U.S. Department of Energy Outfalls Under, McCracken County, Kentucky
Commonwealth of Kentucky Permit Numbers 073-00045, 073-00014, 073-00015	C-746-U, C-746-S and C-746-T Landfills Solid Waste Permits
REEMCBCDOE-03-12-0701	License Agreements between DOE and the Kentucky Department of Fish & Wildlife Resources for Paducah Gaseous Diffusion Plant
Permit Number KY8-890-008-982	Kentucky Division of Waste Management Hazardous Waste Management Facilities Permit, includes the Hazardous and Solid Waste Amendments permit issued by U.S. EPA
REEMCBCDOE-7-08-0xxx (example)	License (Single Purpose: Groundwater Monitoring Wells, Sampling, Furnishing Municipal Water to Grantor)
Dated March 13, 2006; signed by DOE May 9, 2006	Tennessee Valley Authority – Shawnee Fossil Plant – Paducah Gaseous Diffusion Plant Letter of Agreement
PRS-ENM-0031/R2	C-404 Landfill Source Demonstration Paducah Gaseous Diffusion Plant, Paducah, Kentucky, August 2007
DOE/OR/06-1201&D2	Action Memorandum for the Water Policy at the Paducah Gaseous Diffusion Plant Paducah, Kentucky, June 1994
BJC/PAD-691/R1	Cultural Resource Management Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, March 2006
DOE/LX/07-2403&D2/R1	C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky.
DOE Letter PPPO-02-4310559-17	Memorandum of Agreement for Resolution of Informal Dispute for the C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE/LX/07-2403&D2/R1).

Table C.2.EM.PA.0040.A001.01.DR.01-3 Environmental Monitoring and Reporting Milestones/Schedule	
Due to the extensive number of deliverables/milestones, to avoid discrepancies, the full list is only included in Section J, Attachment J-13 identified as EM.PA.0040.A001.01.DR.01	
Milestone	Date
See Section J, Attachment J-13, Summary of Contract Deliverables, Deliverable References for EM.PA.0040.A001.01.DR.01	Per Section J, Attachment J-13,

EM.PA.0040.A001.01.DR.01.01 Abandon Piezometers, and Wells

The Contractor shall complete abandonment of piezometers, and wells. The piezometer and well abandonment shall be conducted in accordance with Kentucky Administrative Regulations Title 401 Chapter 6 requirements and in compliance with any specific requirements imposed by approved work plans for the environmental projects that governed the original installation of the piezometers and wells. Any wastes generated by abandonment activities shall be dispositioned by the milestone date.

The Contractor shall complete the abandonment of the following wells and piezometers:

- From Phase II Aquifer Test – Piezometers PZ3G, PZ3S
- From the Southwest Plume Permeable Treatment Zone Study – Piezometers CM01 through
- CM12
- From Waste Area Group 27 – Piezometers PZ-1/720-012, PZ-2/720-013, PZ-3/720-015, PZ-
- 4/720-017, PZ-5/720-019
- From Waste Disposal Alternatives Study – Piezometers 5A-1 through 5A-10, 11-1 through 11-
- 9
- Monitoring wells – MW305, MW306, MW307, MW308, MW309, MW310, MW311,
- Homestead wells – ABW-03 and ABW-05

Table C.2.EM.PA.0040.A008.42.DR.04.01.06-01 Abandon Piezometers, and Wells	
Milestone	Date
Complete the abandonment of wells and piezometers as described and disposition all wastes.	October 22, 2020

EM.PA.0040.A001.02.DR PUMP AND TREAT OPERATIONS

TCE and ^{99}Tc were discovered in residential wells north of the Paducah Site in 1988. DOE, the EPA and Kentucky entered into an Administrative Consent Order under Sections 104 and 106 of CERCLA that required an Investigation of the nature and extent of off-site contamination.

The site investigation delineated two off-site groundwater contamination plumes, referred to as the Northwest and Northeast Plumes, and identified several potential on and off-site source areas requiring additional investigation and action.

Interim remedial actions were developed to mitigate and control the spread of the highest concentration portion of the Northwest and Northeast plumes. To implement these two interim remedial actions, two pump-and-treat facilities have been installed. The Northwest Interim Record of Decision was signed in 1993, and the Northeast Interim Record of Decision was signed in 1995. Both of these systems have been optimized and/or upgraded since the original RODs and both have a subsequent Explanation of Significant Differences.

Table C.2.EM.PA.0040.A001.02.DR-1 Pump and Treat Operations Requirements Documents	
Document Number	Title
DOE/OR/06-1201&D2	Action Memorandum for the Water Policy at the Paducah Gaseous Diffusion Plant Paducah, Kentucky, June 1994
DOE/LX/07-0359&D1	Post-construction Report for the Northwest Plume Optimization at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, January 2011
DOE/LX/07-1280&D2/R2	Remedial Action Work Plan for Optimization of the Northeast Plume Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, February 2016
DOE/OR/06-1143&D4	Record of Decision for Interim Remedial Action of the Northwest Plume, July 1993
DOE/LX/07-0343&D2	Explanation of Significant Differences to the Record of Decision for the Interim Remedial Action of the Northwest Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky
DOE/OR/06-1356&D2	Record of Decision for Interim Remedial Action at the Northeast Plume, June 1995
DOE/LX/07-1291&D2/R2	Explanation of Significant Differences to the Record of Decision for the Northeast Plume Interim Remedial Action, November 2015
DOE/OR/07-1253&D4/R5	Operation and Maintenance Plan for the Northwest Plume Groundwater System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, September 2010

Table C.2.EM.PA.0040.A001.02.DR-1 Pump and Treat Operations Requirements Documents	
Document Number	Title
DOE/OR/07-1535&D3/R4	Operation and Maintenance Plan for the Northeast Plume Containment System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, August 2013
DOE Letter PPPO-02-3079083-15	Memorandum of Agreement for Resolution of Formal Dispute of the Explanation of Significant Differences and Remedial Action Work Plan for the Northeast Plume Optimization.

EM.PA.0040.A001.02.DR.01 Pump and Treat Operations

The Contractor shall perform all activities to:

- a. Operate and maintain the two installed groundwater pump-and-treat facilities in accordance with the approved operations and maintenance plans to control the highest concentration portion of the Northeast and Northwest Groundwater Plumes until regulatory approval is attained to cease operations, including preparation, completion and submittal of any applicable regulatory documents.
- b. Sample and monitor the three plumes, and conduct analyses to determine the effectiveness of and the need for continued operation of the pump-and-treat systems.
- c. Complete the optimization of the Northeast Plume Pump and Treat System consistent with regulatory agencies negotiated agreements and strategies, as specified in the 2015 Dispute Resolution on the Northeast Plume Pump and Treat System Optimization and the approved Remedial Action Work Plan (RAWP). The Contractor shall develop a Post-Construction Report, for submittal to the regulators. The Contractor shall operate the system with less than 5% downtime.
- d. Prepare an updated TCE and ⁹⁹Tc plume map with current data every two years (currently odd years), including documentation showing how the map has changed and the data/information used to generate the maps.

Table C.2.EM.PA.0040.A001.02.DR.01-1 Pump and Treat Operations Milestones/Schedule	
Milestone	Date
Update TCE and ⁹⁹ Tc plume map	To DOE: April 15, 2019 To the Regulators: June 15, 2019
Update TCE and ⁹⁹ Tc plume map	To DOE: April 15, 2021 To the Regulators: June 15, 2021
Submit Transect Well Data to Regulators for the NE Plume	With FFA Semiannual Report and as requested

Table C.2.EM.PA.0040.A001.02.DR.01-1 Pump and Treat Operations Milestones/Schedule	
Milestone	Date
Submit D2 Post-Construction Report for NE Plume Optimization to Regulators	Consistent with the FFA submittal requirements
Update TCE and ⁹⁹ Tc plume map	To DOE: April 15, 2023 To the Regulators: June 15, 2023
Update TCE and ⁹⁹ Tc plume map	To DOE: April 15, 2025 To the Regulators: June 15, 2025
Update TCE and ⁹⁹ Tc plume map	To DOE: April 15, 2027 To the Regulators: June 15, 2027

EM.PA.0040.A001.07.DR PROJECT MANAGEMENT SUPPORT

The Contractor shall provide all project support activities and resources on-site necessary during the entire POP of this Contract. These support resources include, but are not limited to, the Program Manager, the project management team, and associated support office (e.g., Administrative, QA, HR, Business, Project Controls, Safety, Nuclear Safety, etc.).

EM.PA.0040.A001.07.DR.02 Project Planning & Integration Support**EM.PA.0040.A001.07.DR.02.01 Project Planning, Integration and Interface**

The Contractor shall be responsible for assisting DOE in the planning and integration of the ongoing and planned PGDP D&R activities. The Contractor shall establish, manage and host routine standing integration meetings, with representatives of all Contractors listed in Section C.1, to address common issues and de-conflict issues. An example process is the “Shared Site Process” prepared and managed by the incumbent Contractor.

The Contractor shall establish, appropriately document, and manage the interfaces listed in Section J, Attachment J-12, Government Furnished Services and Items Requirements Matrix.

The Contractor shall provide a weekly deliverables tracking report, identifying the status of in-process and upcoming regulatory and contract deliverables. This report shall be provided electronically and with a hard copy on each Thursday by 0800 Central Time.

The Contractor shall ensure that Long-Term Stewardship (LTS) issues are considered in the planning and execution of the activities described in this PWS to:

- a. Ensure the site’s successful transition to future LTS; and

- b. Assist DOE with LTS planning, transition coordination, and communication with all involved parties, including local stakeholders and regulators.

The Contractor shall ensure that issues associated with the transfer or leasing of land, facilities, and other assets from DOE to other parties are considered in the planning and execution of the PWS.

The Contractor shall coordinate and interface with other site contractors listed in Section J Attachment J-12, Government Furnished Services and Items Requirements Matrix, in the performance of this PWS. The attachment identifies the key specific tasks and services that require interface and coordination with other site entities.

DOE is committed to providing effective support to the Contractor throughout the period of Contract performance, and the Contractor may request that DOE consider providing additional GFSI. To manage the GFSI to be furnished under the Contract and to evaluate the additional GFSI that may be required, the Contractor shall, in accordance with Attachment J-12 Table, submit for DOE approval:

- a. GFSI Request: 12-month advance projection of GFSI to be furnished under the Contract and additional contractor-requested GFSI, 2 months prior to each fiscal year;
- b. Information that supports the improved performance for the cost saved as a result of having the requested GFSI; and
- c. GFSI Request Update – quarterly update to the projection of GFSI to be furnished under the Contract and additional contractor-requested GFSI, prior to each quarter.

DOE shall review the 12-month and quarterly advance projections. If it is determined to be in the best interest of the Government, DOE shall notify the contractor within 30 days if the additional contractor-requested GSI can be provided, and shall provide the contractor details regarding the DOE actions(s). The supported GFSI shall be added to Section J, Attachment J-12, as a DOE commitment to the contractor.

There shall be no DOE commitment to furnish the GFSI. In the event that DOE does not notify the Contractor within 30 days, the Contractor shall assume that DOE will not support the request. In the event that DOE, for any reason, chooses not to provide the Contractor with its requested additional GFSI, the Contractor shall remain fully and solely responsible for obtaining the needed services and/or information in a timely manner and without any further recourse against DOE. However, the GFSI contained in Section J shall not be self-

performed/subcontracted and will be deemed unallowable if self-performed/subcontracted.

The Contractor shall be responsible for its own services including, but no limited to, transportation, traffic management, shipping/receiving, scale calibrations, vehicle and equipment maintenance and management. Additionally, the Contractor shall maintain equipment and appropriate certifications to ensure an effective transportation program.

Table C.2.EM.PA.0040.A001.07.DR.02.01-1 Project Management Milestones/Schedule	
Milestone	Date
Deliverables Tracking Report	Weekly
12-month advance projection of GFSI to be furnished under the Contract and additional contractor-requested GFSI	Annually, 2 months prior to the beginning of each fiscal year
Quarterly update to the projection of GFSI to be furnished under the Contract and additional contractor-requested GFSI	Quarterly, prior to the beginning of each quarter
Information that supports the improved performance for the cost saved as a result of having the requested GFSI	As necessary to support requests for additional/new GFSI.

EM.PA.0040.A001.07.DR.02.02 Regulatory Planning

The Contractor shall provide support to DOE relating to regulatory documents and agreements, in the form of technical experts and site specific knowledge of operations, for regulator interactions, independent facilitation services, the development and implementation of regulatory strategies, and the public comment process.

The Contractor shall provide regulatory strategies/planning for re-aligning the site's deactivation and decommissioning activities with currently planned and completed remediation activities, logically sequencing and integrating that work to be protective of safety, health, and the environment while maintaining an overall effective approach. The Contractor shall also consider developing innovative and unique regulatory approaches to executing the work in this PWS and in the out-years, in order to achieve the same levels of clean-up in a more cost effective manner.

The Contractor shall maintain and update, as necessary, the programmatic remedial action documents. As part of maintaining these programmatic documents, the Contract shall coordinate working group communications, scoping meetings, information exchanges, and routine meetings with DOE and the regulatory agencies to jointly identify necessary changes and reach consensus on the contents of the document as part of the updating process. These documents include, but are not limited to:

- Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Volume 1. Human Health, June 2016, DOE/OR/07-0107&D2/R7/V1
- Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Volume 2. Ecological, June 2015, DOE/OR/07-0107&D2/R2/V2
- Paducah Gaseous Diffusion Plant Programmatic Quality Assurance Project Plan, March 2015, DOE/LX/07-1269&D2/R2
- Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision-FY 2015, May 2015, DOE/LX/07-1301&D2/R1
- Community Relations Plan, May 2016, DOE/LX/07-2401&D2/R1
- Data and Documents Management and Quality Assurance Plan for Paducah Environmental Management and Enrichment Facilities, September 1998, DOE/OR/07-1595&D2
- Modifications to the Paducah Gaseous Diffusion Plant Federal Facility Agreement, DOE/OR/07-1707

Table C.2.EM.PA.0040.A001.07.DR.02.02-1 Project Management Milestones/Schedule	
Milestone	Date
Risk Methods Document (Human Health)	As required by the working group
Risk Methods Document (Ecological)	As required by the working group
Programmatic Quality Assurance Project Plan	As required by the working group
Site Management Plan	Annually Initial Due 10/15 Final Due for signature 11/10
Community Relations Plan	Every 2 years beginning in 2018 Initial Due 5/1 Final Due for signature 6/20
Data and Documents Management and Quality Assurance Plan	As needed
FFA Modifications	As needed

EM.PA.0040.A001.07.DR.02.03 Program Management Support

The Contractor shall provide on-site services including management, public affairs including Paducah Site Citizens Advisory Board (CAB) support, business administration (e.g. Contracting, procurement, financial and accounting), legal support, human resources, training, and program management. Additionally, the Contractor shall perform all activities to:

- a. Support DOE in responding to Congressional, regulatory and other requests for documents and information; examples of such include: Freedom of Information Act requests; Privacy Act requests; and litigation document requests served upon DOE and its current and former prime contractors. Support shall include, but not be limited to, preparation for briefings, public presentations, and search, review, and reproduction of documents. The Contractor shall ensure all external briefing materials and public presentations are of the highest professional quality to present the current and planned project achievements. The Contractor shall ensure that sufficient time is allotted for DOE (including Headquarters) to review and comment on any external briefing materials and public presentations. External briefing materials and public materials shall be approved by DOE prior to public release.
- b. Support DOE in the development of internal presentations, budgets, staff development, and other related services.
- c. Provide and support routine (monthly) general and public site tours of the PGDP facilities and projects, including busing U.S. citizens into the site/limited area, providing presentation/handout materials and communicating the status of the project. Tours may be held multiple times per months in lieu of one per month to better accommodate the public and/or coordinate site activities.
- d. Host public/stakeholder meetings and working sessions, as needed, to support high interest topics and to educate the community about the work at the site.
- e. Support DOE in preparation of presentations and conducting presentations to the Paducah CAB's monthly meetings, as directed.
- f. Provide administrative services pertaining to public affairs. These shall include, but not be limited to, development of a project/site external communication strategy to present the current and planned project achievements to DOE's stakeholders, including local and state government and congressional representatives.
- g. Support DOE's work with grantees such as the Kentucky Research Consortium for Energy and Environment (KRCEE) consistent with their Financial Assistance Awards.
- h. Ensure that all environmental regulatory documents have received adequate legal review for sufficiency, accuracy and strategic impacts before being submitted to DOE and then to the regulatory agencies.
- i. Support DOE efforts in site real property transfer, site reindustrialization/reutilization activities, and in Natural Resource Damage Assessments.
- j. Provide joint legal support to DOE in connection with legal or regulatory proceedings at DOE's request.
- k. Support Contract implementation at the beginning and transition at the end of the Contract.

- l. Provide central locations and receptacles for the collection and delivery of site mail by the Infrastructure Contractor.
- m. Provide external review and support to DOE by providing support during audits and assessments by entities having oversight responsibility for PGDP D&R Project and its contractors. These entities include:
 - i. Defense Nuclear Facilities Safety Board (DNFSB);
 - ii. Government Accountability Office (GAO);
 - iii. DOE Office of Inspector General (OIG); and
 - iv. Other governmental and DOE organizations.
- n. The Contractor shall support the DOE, and the DOE Environmental Technical Services (ETS) Contractor in hosting staff from auditing and assessing organizations, providing required presentations, responding to information requests, and providing required subject matter experts to respond to questions and information requests.
- o. The Contractor shall support DOE in interfacing with DNFSB, as needed, by:
 - i. providing support for the preparation of DOE responses to DNFSB issues and recommendations that affect this Contract,
 - ii. cooperating with the DNFSB and providing access to work areas, personnel, and information, as necessary, and
 - iii. maintaining a document process in accordance with the Contractor Requirements Document (CRD) M 140.1-1B, Interface with the DNFSB (or current version).
- p. Support DOE in interfacing with GAO, OIG, and other governmental and DOE oversight organizations by:
 - i. cooperating with assessors and auditors, and providing access to work areas, personnel, and information, and
 - ii. providing support during audits and assessments, including delivering information within a specified time, arranging briefings, preparing presentation materials, maintaining a record of documents provided in response to requests, and making this record available to DOE as requested.
- q. Provide knowledgeable single points-of-contact for each of the following: DNFSB, OIG, GAO, and other assessing governmental and DOE oversight organizations (including the DOE Office of Enforcement).

- r. Support efforts to evaluate various alternatives for additional office space at the site. Efforts may include the use of third party financing or Energy Savings Performance Contracts (ESPC).
- s. The Contractor shall provide and track training to DOE and other site contractors required to access/enter its facilities, including respirator training, asbestos awareness, and other specialized training.

EM.PA.0040.A001.07.DR.03 Project Management

The Contractor shall perform all activities to develop and maintain a project management work control system compliant with Integrated Contractor Work Control Systems and Reporting Requirements (July 2012), Section H.68 and FAR 52.234-4, Earned Value Management System (May 2014). The Contractor shall notify DOE in writing of any changes in approach affecting the overall site strategy, cost, and schedule that may impact the DOE life-cycle baseline. These notifications are to be made in a timely manner and can be in the form of a letter or can be provided as part of the Monthly Performance Report. This information is required to support DOE Baseline Change Proposals to align the DOE baseline with the Contractor CPB.

The Contractor shall ensure the CPB remains aligned with the Contract terms to include scope, cost and schedule. The Contractor shall ensure timely response to Contract modifications and declaration of changed conditions, through the submission of Contract change proposals and/or baseline change requests to maintain alignment of the CPB with the Contract. The Contractor shall provide all management and technical information to:

- a. Support the budget formulation activities including, but not limited to, emerging work items list, budget formulation inputs (including Integrated Priority List), budget update submissions, budget scenario development, and budget presentations (such as public and regulatory briefings, etc.);
- b. Develop and submit Annual Spend Plans, Monthly Spend Plan Reports, Full Time Equivalent (FTE) staffing projections, actual headcount projections, and other similar reporting information;
- c. Meet the data requirements of the DOE Integrated Planning, Accountability and Budgeting System;
- d. Support audits, evaluations, and external technical reviews; and
- e. Support other DOE project performance assessments and information needs.

All project management information developed under this contract shall be provided electronically or be electronically accessible by DOE. In support of the Paducah Integrated Site-wide Federal Lifecycle Baseline, the Contractor shall also provide the Initial and Final CPB information to the ETS Contractor, or other DOE prime contractor, as designated.

The Contractor shall submit the Contractor's Monthly Performance Report in accordance with Section H.68 D.6. This deliverable includes information to satisfy

multiple performance reporting requirements. The submittal shall include the report format required for submittal to the Office of Project Assessment that includes the Contract Performance Reports (CPR) formats 1, 3, 5, and 6 and a Contract Funds Status Report (CFSR) unless the Contract specifies otherwise. The CPRs shall be provided in the format forms referenced in Integrated Program Management Report (IPMR) Data Item Description (DID) DI-MGMT-81861 unless the Contract specifies otherwise. The CFSR shall be provided in accordance with Data Item Description, DI-MGMT-81468, Contract Funds Status Report (CFSR) or equivalent.

A separate presentation, to be used at the Monthly Performance Review meeting, will be provided to DOE on the same day as the Monthly Performance Report.

In accordance with Section H.68, the Monthly Performance Report shall also include an executive summary comprising the following sections:

- a. A concise narrative of the project status including scope accomplished during the reporting period, near term activities to be performed, and whether project is on target to meet objectives and whether any new risks have been identified.
- b. An update of the schedule with details of deviations from the critical path or near critical path, their root cause, and potential impacts to the project.
- c. Explanation of near term milestones and deliverables at risk of being missed.
- d. Discussion of corrective actions currently in place to address performance issues including initiation date of corrective actions.
- e. A short narrative explaining any funding issues.
- f. Information on any safety or quality matters that emerged or persisted during the reporting month.

Additional information/sections may be added or re-organized to provide an efficient manner to present and discuss information for each project. Action items from monthly meetings shall be identified and reported on each month. Along with the submittals above, the following electronic files are required.

- a. Excel file of the monthly spend plan by month at WBS Level 5 (or lower if necessary) for current FY, FY+1, and a Total Contract Estimate at Completion column.
- b. Cobra file backup of data updated each month.
- c. Primavera (P6) status file at the end of the reporting period.
- d. PDF version of P6 status file.

Table C.2.EM.PA.0040.A001.07.DR.03-1 Project Management Milestones/Schedule	
Milestone	Date
Final CPB aligned to contract value	Within 6 months after NTP
Contractor's Monthly Performance	Monthly – no later than the 8 th business day prior to the end of each calendar month
Monthly Spend Plan Reports	Monthly – no later than the 8 th business day prior to the end of each calendar month

Annual Spend Plans	August 15, 2018, then annually after that
Full Time Equivalent (FTE) staffing projections, actual headcount projections	Monthly – no later than the 8 th business day prior to the end of each calendar month

EM.PA.0040.A001.07.DR.04 Environment, Safety, Security, Health & Quality

EM.PA.0040.A001.07.DR.04.01 Safety Programs

The Contractor shall:

- a. Conduct all activities required for compliance with applicable laws, regulations, permits, agreements and Orders, and DOE Directives including those listed in Section J, Attachment J-4. In accordance with Section H.43, the Contractor's programs shall be operated as an integral, and visible, part of how the Contractor conducts business. This includes, but is not limited to: prioritizing work planning and execution; establishing clear Environmental, Safety, and Health (ES&H) priorities; allocating resources to address programmatic and operational considerations; and correcting non-compliances and addressing all hazards for all facilities, operations, and work. The Contractor shall ensure that cost reduction efforts and efficiency efforts are fully compatible with ES&H performance.
- b. Take all actions necessary to preclude serious injuries and/or fatalities; keep worker exposures and environmental releases as low as reasonably achievable and below established limits; minimize the generation of waste; maintain or increase protection to the environment; and maintain or increase public and worker safety and health.
- c. Submit a Chronic Beryllium Disease Prevention Program consistent with 10 CFR 850 for DOE review and approval. A study has been completed characterizing the levels of Beryllium within the site (BJC/PAD-581) and shall be considered by the Contractor in the development and implementation of a Chronic Beryllium Disease Prevention Program. This program shall encompass DOE personnel and PGDP Contractors. The Contractor shall be the Site Chronic Beryllium Coordinator.
- d. Ensure adequate access to health programs/ambulatory care, and beryllium and radiation worker health surveillance programs. These services are required to assess, monitor, record data, and provide medical support for current site workers who are or may be exposed to radiological and hazardous materials.
- e. Maintain a trained workforce necessary for performance of this Contract. The Contractor shall accept other training modules as equivalent to their own and assure reciprocity for, at a minimum, all PGDP Contractors. The Contractor shall also complete site-specific training (provided by the Infrastructure Contractor) necessary for site access, including but not limited to, Consolidated Annual Training, Radiation Worker I and II, General Employee Training, Annual Security Refresher, Workplace

Violence Prevention, Diversity Awareness, Employee Conduct Training, Business Ethics/Standards of Conduct, and Fire Extinguisher Training, DOE Orders/Work Smart Standards and ISMS. The Contractor shall be responsible for any job specific training necessary to implement the PWS activities.

- f. Establish a training program for implementation of a compliant program in accordance with DOE Order 426.2 requirements and all applicable laws and regulations in support of the work performed under this Contract. The Contractor shall track its employees training status and notify employees of training needs (this includes training provided by other site contractors). Training records shall be maintained and retrievable for current employees. The Contractor shall coordinate with other site contractors to consolidate training modules, where practicable. The Contractor shall ensure that its training program is configured/managed so the personnel who do not have the necessary training (e.g., not trained, not requalified, etc.) are prohibited from performing the work that requires the training.
- g. Perform work in accordance with 10 CFR 851. The Contractor's safety program requirements shall include hazard analyses, work permits (as applicable), industrial hygiene monitoring, and trained safety professionals. The Contractor shall manage and perform work in accordance with a documented worker safety and health plan approved by DOE prior to commencement of work.
- h. Prepare an Activity Specific Health and Safety Plan and Job Hazards Analysis as needed as part of the overall project safety program. Copies of these documents will be provided to DOE for information.
- i. Provide safety and health Personal Protective Equipment for the Contractor, DOE employees, and DOE's ETS Contractor. The Contractor shall be responsible for the subsequent decontamination and disposal of such PPE and shall be responsible for providing respirator pickup and distribution services at the PGDP for the Contractor, ETS contractor, and DOE.
- j. Shall develop and implement a process to ensure site personnel adhere to policies, procedures and regulations.
- k. Provide investigations and support for ES&H issues/effects resulting from the historical "Work for Others Program" (work for non-DOE entities (sponsors) on a fully reimbursable basis in accordance with DEAR 970.5217-1). The Contractor may encounter materials and historical information that references a "Work for Others Program"; these materials may include classified information. The potential implications shall be addressed consistent with the PWS security requirements.
- l. Provide non-emergency spill contamination, clean-up, and other post-emergency response activities. Spills could include, but not be limited to, diesel fuel, oils containing PCBs, and radioactive contamination.
- m. Provide programmatic and oversight support to other DOE support personnel/contractors (e.g., technical support contractors, Kentucky

Research Consortium for Energy and Environment demonstration projects on DOE property) as requested by DOE.

- n. Manage the Site-wide Integrated Lockout & Tagout Program and ensure lock-out/tag-out is properly coordinated with other site contractors. The Contractor shall implement a compliant lock-out/tag-out program in accordance with DOE-STD-1030-96 and all applicable regulations. Each of the site's contractors is required to participate in this Site-wide Integrated Lockout & Tagout Program.
- o. Provide medical screening of the DOE employees and DOE's ETS Contractor if required to enter the work areas and meet the requirements of the Worker Safety and Health Program (10 CFR 851), or Radiological Protection Program (10 CFR 835).
- p. The Nuclear Safety Program shall be described in safety basis documents in accordance with 10 CFR 830, Nuclear Safety Management. The Contractor shall be responsible for implementing and maintaining any necessary safety basis documents. The Contractor shall develop and implement a Nuclear Criticality Safety (NCS) Program/Procedure compliant with DOE O 420.1C. The Contractor shall ensure proper implementation of its Nuclear Criticality Safety Program by performing annual surveillances as required by ANSI/ANS-8.19, *Administrative Practices for Nuclear Criticality Safety* (required by DOE O 420.1C). The Contractor shall revise the Nuclear Criticality Safety Evaluations (NCSE) to meet current DOE directives and to address current facility conditions, scope of this PWS, and identified deficiencies in the current controls. Current deficiencies include a less than adequate ability to ensure moisture limits are met for cascade piping.

The Contractor shall submit to DOE for review and approval, a Characterization and Criticality Incredible Project Plan (CCIPP) for each of the four process facilities (C-331, C-333/C-333A, C-335, and C-337/C-337A). A CCIPP is a summary level document that serves as both a roadmap and communications tool to 1) describe the overall characterization approach for determining that structures, piping, equipment, and materials remaining in the building are Criticality Incredible (CI), 2) ensuring the overall linkage to an off-site disposal facility Nuclear Criticality Safety (NCS) and Hazard Analysis is adequate to support building demolition, transportation, and disposal of the building demolition debris at an off-site disposal facility, and 3) prohibited items have been removed or identified for disposition during demolition. Specific purposes for the CCIPP include, but are not limited to, the following:

- Describing step out criteria to be incorporated in the safety basis for the facility.
- Facilitating the declaration of the CI for the building prior to demolition by characterizing and verifying the remaining structures, piping, equipment and materials meet the applicable

CI criteria for demolition, transportation, and disposal at an off-site facility.

- Verifying prohibited items (e.g., containerized Resource Conservation and Recovery Act wastes, accountable materials, etc.) are removed from the building.
- Scheduling, updating, and communicating progress towards CI for the Hazard Category 2 Facility.

The plan shall include detailed methodologies for complying with the Portsmouth/Paducah Project Office definition for CI for the remaining life cycle of the facility by providing the following at a minimum:

- Roles and responsibilities
- Decision criteria and logic
- Inventory management and equipment identification
- Data quality objective methodology
- Quality assurance links developed
- Equipment removal sequencing
- Facility sequencing
- Characterization methodologies for each equipment type (e.g., intrusive, in-situ, ex-situ, process knowledge)
- Documentation sequencing necessary to efficiently declare CI
- Required documentation (e.g., NCSE/D, Nondestructive Assay methods)
- NCS criteria based on equipment type required to ensure criticality is not credible

Criticality Incredible definition includes, but is not limited to, the following:

- The probability for a nuclear criticality event is evaluated to be not believable on the basis of commonly accepted engineering judgement;
- The standard for preparing the building for demolition and placement is to demonstrate that criticality is incredible for all normal and credible upset conditions associated with the proposed activities during all phases of decontamination and decommissioning (D&D), demolition, and disposal at an off-site facility; and
- CI is achieved when DOE approves the downgrade of the building (applicable as defined to all phases of D&D, including demolition and disposal at an off-site facility) to Radiological Facility status per DOE-STD-1027-92.

Approved NCS documents must demonstrate that criticality is incredible for the amount, form, and/or distribution of fissile material remaining at the time of the CI declaration (as well as during all phases of D&D including demolition and disposal at an off-site facility) and must be

limited by nature of process only (i.e., without continued reliance on any criticality safety controls).

The form and distribution of the residual fissile materials must be demonstrated to meet the approved limits using characterization data that is accepted by the DOE approval authority. This characterization data and supporting documentation shall be provided to DOE in a form that can be readily validated by a third party. The contractor shall develop all necessary documentation to support final decisions and implementation of actions.

- q. Shall comply with 10 CFR 830 and have programs and procedures that implement the requirements. The Contractor shall review the existing safety basis documents, and accept, modify, or develop, as necessary, for compliance performance per DOE Order requirements and all applicable laws and regulations. To support new or changed operations, the Contractor shall revise or develop documented safety analysis and safety basis documentation compliant with 10 CFR 830 and DOE STD 1027. The Contractor shall obtain DOE approval of the safety basis documents prior to implementation. The Contractor shall update and maintain the safety basis documents in a manner that supports the work required by the Contract and consistent with DOE Orders and applicable requirements. The Contractor shall revise the Authorization Basis to reflect the results of the Natural Phenomenon Hazard (NPH) analysis (FPDP-RPT-0051).
- r. The Contractor shall review the existing procedures, program and performance documents, and accept, modify, or develop, as necessary, for compliance performance per DOE Order requirements and all applicable laws and regulations. The Contractor shall also develop and implement a work planning and control process in accordance with DOE O 412.1A, Work Authorization System, for Contract activities in support of acceptance of turnover of the PGDP Facility. The Contractor shall eliminate all blue-sheeted (i.e. revised or adopted) procedures and performance documents and implement procedures and performance documents in compliance with DOE Orders, no later than 90 days after transition is completed.

Table C.2.EM.PA.0040.A001.07.DR.04.01-1 Safety Programs Requirements Documents	
DOE HSS memo OE-1: 2013-01, April 2013	DOE Health, Safety, and Security (HSS) Operating Experience memo, Improving Department of Energy Capabilities for Mitigating Beyond Design Basis Events
FPDP-RPT-0051	10 Year Natural Phenomena Hazards Update Review Paducah Gaseous Diffusion Plant

Table C.2.EM.PA.0040.A001.07.DR.04.01-2 Safety Programs Milestones/Schedule	
Milestone	Date

Submit a Chronic Beryllium Disease Prevention Program consistent with 10 CFR 850	90 days after NTP
Worker Safety and Health Program Plan	90 days after NTP
Submittal of Nuclear Criticality Safety Program	75 days after NTP
Submit revised Safety Basis documents (including results of NPH analysis)	90 days after NTP
Annual Safety Basis document submittal to DOE for approval	Annually from date of initial DOE approval
Eliminate all blue-sheeted procedures and performance documents	90 days after conclusion of transition
Complete revision of NCSEs to meet current DOE directives and to address current facility conditions, scope of this PWS, and identified deficiencies in the current controls. Current deficiencies include a less than adequate ability to ensure moisture limits are met for cascade piping	30 months after completion of Transition
Develop and gain DOE approval of a CCIPP for the C-331 process facility	As established in the Contractor's CPB and approved by DOE. The delivery schedule must support the Contractor's baseline schedule for deactivation activities in the facility.
Develop and gain DOE approval of a CCIPP for the C-333/C-333A process facility	As established in the Contractor's CPB and approved by DOE. The delivery schedule must support the Contractor's baseline schedule for deactivation activities in the facility.
Develop and gain DOE approval of a CCIPP for the C-335 process facility	As established in the Contractor's CPB and approved by DOE. The delivery schedule must support the Contractor's baseline schedule for deactivation activities in the facility.
Develop and gain DOE approval of a CCIPP for the C-337/C-337A process facility	As established in the Contractor's CPB and approved by DOE. The delivery schedule must support the Contractor's baseline schedule for deactivation activities in the facility.

EM.PA.0040.A001.07.DR.04.02 Integrated Safety Management

The Contractor shall develop and implement an Integrated Safety Management System (ISMS) Program that complies with the Section I Clause DEAR 970.5223-1, Integration of Environment, Safety, and Health into Work Planning

and Execution. The Contractor's ISMS program shall ensure all work is performed safely and in a compliant manner that protects the workers, public, and environment from adverse consequences. The Contractor shall also establish performance measures, objectives, and commitments (PMOC's) as required by DEAR 970.5223-1. PMOCs shall be submitted annually for DOE approval.

The ISMS program shall include an Operating Experience (e.g., lessons learned) program that is compliant with DOE Orders. The Operating Experience program shall be structured to identify and apply available lessons in safety, quality and performance to this PWS as well as to capture, document, and provide lessons learned from this PWS for future application by others.

The Contractor shall prepare an ISMS Description; including PMOCs to implement the Contractor's ISMS within 90 days after NTP. The ISMS Description shall identify how the Contractor will maintain compliant and safe operations by integrating safety, health, and environmental compliance into all project activities. The initial ISMS Description must be approved by DOE prior to the end of transition.

The ISMS program shall integrate DOE O 436.1, Departmental Sustainability. In accordance with DOE O 436.1, the Contractor shall develop and implement Site Sustainability Plans (SSP) and an Environmental Management System (EMS). These plans shall include recycling and pollution prevention. The Contractor shall be the Environmental Management Systems designated site coordinator.

To continuously improve the ISMS, the Contractor shall perform an initial, and subsequently, annual ISMS effectiveness reviews and submit a report documenting the status of the ISMS program to DOE along with any changes needed to the ISMS Description. In addition, the ISMS program shall be subject to a verification review and approval by a DOE chartered ISMS verification team within 121 days after transition.

Table C.2.EM.PA.0040.A001.07.DR.04.02-1 Integrated Safety Management Milestones/Schedule	
Milestone	Date
Submit ISMS Description	90 days after NTP
Submit SSP and EMS	90 days after NTP
Contractor's ISMS Verification Review and Report	Within 121 days after transition
ISMS Biennial Effectiveness Review and Report	August 31, 2018, Biennially thereafter
PMOCs	121 days after NTP, Annually thereafter

EM.PA.0040.A001.07.DR.04.03 Radiological Protection Program

The Contractor shall develop and economically and efficiently implement a Radiation Protection Program (RPP) compliant with the requirements specified in 10 CFR 835 and DOE Order 458.1 (the Environmental Radiation Protection Program (ERPP) is addressed in EM.PA.0040.A001.01.DR.01 and integrated with other contractor programs such as but not limited to; training programs, quality assurance, records management, ISMS, EMS, etc.) The confirmation of the program review and any changes shall be submitted to DOE for approval. Management of radioactive sources onsite the Contractor is responsible for shall be fully compliant with the RPP and DOE requirements upon possession or management of the sources.

The Contractor is responsible for all aspects of:

- a. Evaluating, down posting, and controlling radiological conditions and preventing the spread of radioactive materials to the environment above DOE limits;
- b. Establishing bioassay and dosimetry requirements for personnel entering Contractor controlled areas in compliance with Technical Basis Documents (TBDs);
- c. Implementing Authorized Limits where appropriate and applicable to reduce operational and disposition costs;
- d. Distribution and collection of radiation dosimetry and bioassays (including purchasing bioassay kits) in compliance with the site TBD for internal contamination control and TBD for external dosimetry that are compliant with the DOE Laboratory Accreditation Program (LAP) requirements for its employees, subcontractors and visitors;
- e. Economically and efficiently performing radiological surveys as needed to demonstrate compliance with 10CFR835 and DOE Order 458.1, including free release surveys of material and equipment transferred to the Infrastructure Contractor, PACRO or any other entity;
- f. Ensuring that documentation of surveys of real property are stored electronically within OREIS; and
- g. Reviewing and evaluating all necessary radiological, dosimetry and bioassay data for application to the DOE approved RPP and dose evaluations needed by the Infrastructure Contractor for the Contractor's employees, subcontractors, and visitors.

The Infrastructure Contractor shall perform calibration, routine maintenance, and repair of all field monitoring and surveying equipment as required by manufacturer's instructions and the Contractors Measurement and Test Equipment (M&TE) program. This does not include daily calibration checks or daily/weekly routine maintenance, which shall be performed by the Contractor. The Contractor shall maintain daily calibration check quality control charts. The Contractor shall be responsible for calibration and maintenance of laboratory,

non-laboratory, and Non-destructive Assay (NDA) equipment that would be used to measure swipes or samples. The Infrastructure Contractor shall manage the program elements necessary to support GFSI functions that are provided to the Contractor (e.g., radiological survey and monitoring equipment calibration and annual maintenance, dosimetry reading, and bioassay analysis). The Contractors RPP shall be consistent with the site TBDs and other contractors programs. The Infrastructure Contractor shall provide dosimetry, bioassay analysis, exposure database as a GFS. Determinations of dosimetry requirements and evaluation of dosimetry or radiological data is not a GFS and shall be performed by the Contractor.

Table C.2.EM.PA.0040.A001.07.DR.04.03-1 Radiation Protection Program Milestones/Schedule	
Milestone	Date
Submittal of the Radiation Protection Program	60 days after NTP
Submittal of the Environmental Radiation Protection Program	Within 60 days after NTP, Annually thereafter

EM.PA.0040.A001.07.DR.04.04 Emergency Management & Fire Protection Program

The Contractor shall maintain and manage the Paducah Site Emergency Management Program Plan in compliance with the DOE order requirements. Per DOE O 151.1D, Comprehensive Emergency Management System, the Contractor shall implement comprehensive emergency management requirements, as they apply to the site/facility/activity, commensurate with the hazards present. General requirements shall include the implementation of a Comprehensive Emergency Management System designed to:

- a. Minimize the consequences of all emergencies involving or affecting facilities and activities (including transportation operations/activities);
- b. Protect the health and safety of all workers and the public from hazards associated with site operations and those associated with decontamination, decommissioning, and environmental restoration;
- c. Prevent damage to the environment; and
- d. Promote effective and efficient integration of all applicable policies, recommendations, and requirements, including Federal interagency emergency plans. An exemption for two-level (site area emergency and alert) emergency classification (versus a three-level required by DOE O 151.1D) was generated by DOE in 2014.

The Contractor shall modify the program to come into full compliance with the three levels required by DOE Order 151.1D, eliminating the exemption within 24 months after transition is completed. All procedures, authorization basis documents, program documents, and other implementing documents shall be modified to remove exemption.

Activities shall include, but are not limited to the following:

- a. Provide initial and refresher Emergency Operations Center (EOC) and Joint Information Center (JIC) training for DOE and DOE Prime Contractors/Subcontractors as needed. Develop and implement a site wide emergency exercise/drill program in compliance with DOE Orders, with support from other DOE Prime Contractors/Subcontractors as needed.
- b. Ensure sufficient resources are available to provide emergency response compliant with DOE Orders for the entire site, (Fire Operations, Emergency Squad, Emergency Operations Center, & Joint Public Information Center) including capabilities for fire, rescue, technical rescue, HAZMAT, medical response at the Advanced Life Support (ALS) level, and the capability to notify employees and offsite personnel of an emergency to facilitate safe protective actions. Ensure the proper identification, categorization/classification, notification, and
- c. reporting of emergencies to the DOE Paducah office, PPPO Manager, the Headquarters Emergency Operations Center and other organizations in accordance with applicable DOE policies and requirements.
- d. Ensure recovery procedures are available that include termination of emergency, and the dissemination of information to Federal, State, and local organizations regarding the emergency and possible relaxation of public protective actions; planning for decontamination actions;
- e. establishment of a recovery organization; development of reporting requirements; and establishment of criteria for resumption of normal operations.

The Contractor shall maintain and update documentation establishing an Emergency Planning Zone (EPZ); Hazard Surveys, Site wide Threat and Hazard Identification Risk Assessment (THIRA), Emergency Planning Hazard Assessments (EPHA), and Emergency Plans that document comprehensive emergency management programs; and Emergency Readiness Assurance Plans. The Contractor shall also maintain and update Emergency Action Levels (EALs) and protective actions, review and implement EALs and protective actions from other contractors/subcontractors. The Contractor shall integrate emergency public information planning with the maintenance of the Paducah Site Emergency Plan. The Contractor shall maintain a coordinated off-site emergency management interface with state and local organizations responsible for off-site emergency response and protection of the public and submit copies of all Mutual Aid Agreements and contracts for offsite assistance annually to DOE-PPPO. The Contractor shall gain DOE concurrence prior to entering into or modifying any Mutual Aid Agreements (e.g., Letters of Agreement, or Memorandums of Understanding) and contracts.

Maintain an Emergency Readiness Assurance Program that meets the requirements of DOE Order 151.1D and provides assurances that emergency plans, implementing procedures, and resources are adequate and sufficiently

maintained, exercised, and evaluated, and that improvements are made in response to identified needs.

The Contractor shall implement and manage a site-wide (covering the other site tenants/contractors) Fire Protection Program that complies with the CRD of DOE O 420.1C; National Fire Protection Association (NFPA); and OSHA 1910.146.

The Contractor shall provide site-wide (involving site tenants/contractors) active fire protection system inspections, testing and maintenance, fire investigations, and fire department and emergency response. Fire protection system inspection, testing and maintenance shall include a fire protection system impairment strategy. Fire protection systems in facilities shall be inspected, tested and maintained in accordance with National Fire Protection Standards.

The Contractor shall be responsible for providing a Fire Protection Plan and Fire Hazard Analyses (FHA) for approval. A Baseline Needs Assessment (BNA) shall be prepared including details regarding Contractor emergency response capabilities including mission responsibilities, personnel, apparatus, equipment, facilities, programs, incident reporting, etc.

It is recognized that the size and capability of emergency response, including fire protection, programs and facilities are dependent on operational activities at the site. The Contractor shall develop these programs/documents with automatic triggers that eliminate requirements as the status of the PGDP facilities moves toward shutdown and isolated status.

In accordance with EM.PA.0040.A001.07.DR.04.04 FRNP has been directed to provide Fire Prevention Services. To that end FRNP is authorized to purchase a Fire/ladder Truck with the specifications similar in nature to the Inferno HD-100 MMP: 2016 NFPA 1901 compliant, Inferno custom chassis, Cummins ISLX12 400 hp engine, automatic transmission, medium –door tilt flat roof cab, seating for 6,300 gallon tank, 1,500 GPM midship pump, heavy duty extruded aluminum EZ Stack body, 100 foot mid-mounted heavy duty aerial platform, electric monitor, 2 way intercom, tip control for monitor, NFPA115 foot ground ladders, eight pike poles and other necessary options. This vehicle will replace the current out of service ladder truck.

An increase in contract value of \$1,200,000 is being provided to facilitate the purchase of the fire truck.

Table C.2.EM.PA.0040.A001.07.DR.04.04-1 Current Emergency Management & Fire Protection Program Agreements	
<i>Letters of Assistance</i>	
U.S. Department of Justice/Federal Bureau of Investigation	
Kentucky State Police	

McCracken County Judge Executive
McCracken County Office of EM
Mercy Regional Emergency Medical Services
<i>Memorandum Of Understanding</i>
West McCracken Fire District (Includes other local fire departments)
McCracken County Sheriff's Department
Paducah Police Department
<i>Memoranda of Agreements</i>
Air Evac Lifeteam (participating provider in the AirMedCare Network)
Baptist Health
Mercy Health Partners – Lourdes, Inc.

Table C.2.EM.PA.0040.A001.07.DR.04.04-2 Emergency Management & Fire Protection Program Milestones/Schedule	
Milestone	Date
Completion of Contractor Readiness Assessment for Emergency Management Program	Within 120 days after transition
Submittal of the Emergency Readiness Assurance Plan (ERAP)	Annually Before September 30 th
Submittal of Paducah Site Emergency Management Program Plan and other required secondary documentation such as EALs, EPZs, EPHAs, All Hazard Surveys, etc.	60 days after NTP and as revised thereafter
Triennial update of Paducah Site Emergency Management Program Plan	Triennially
Triennial update of All Hazard Surveys	Triennially
Site wide Threat and Hazard Identification Risk Assessment (THIRA)	120 days after NTP and triennially and as changed thereafter (typically submitted with ERAP)
Annual site, facility, and activity exercise plan.	Annually by December 31 st
Performance of an annual evaluated site-level emergency management exercise in accordance with DOE O 151.1D	Annually
Submittal of a plan (Scenario) for the annual evaluated site-level emergency management exercise	Annually, 30 calendar days prior to the exercise
Submittal of Fire Protection Plan and Fire Hazard Analysis	90 days after NTP and as changed thereafter
Submittal of Emergency Management and Fire Protection Baseline Needs Assessment	60 days after NTP, reviewed every three years, and as changed thereafter
Mutual Aid Agreements and Contracts	121 days after NTP and Annually and as changed thereafter
Submittal of Fire Hazard Analysis	90 days after NTP and as changed thereafter
Submittal of completion of Triennial Self-Assessment of fire protection program	Triennially
Submittal of completion of Triennial review of FHAs	Triennially
SARA Title III Plan	As updated
Corrective Action Plans for external findings identified during evaluations, assessments, drills, exercises, and actual emergencies	As required

EM.PA.0040.A001.07.DR.04.05 Quality Programs

The Contractor shall comply with 10 CFR 830, other regulations affecting Quality Assurance (QA) and DOE O 414.1D, and implement a DOE-approved Quality Assurance Program (QAP) in accordance with the EM Quality Assurance Program, EM-QA-001, Revision 1 dated June 11, 2012, prior to commencement of work affecting nuclear safety or quality. If there is any inconsistency between the QAP and any other terms of the contract, the more restrictive requirements apply. The Contractor shall submit a QAP to DOE for approval within 90 days of the DOE contract being awarded, and at a minimum, annually review and update the QAP as appropriate. A summary of the review shall be submitted to DOE for informational purposes. The revised QAP shall be submitted to DOE for approval. Editorial changes that do not reduce or change commitments, do not require approval.

The Contractor's QAP shall describe the overall implementation of the EM QA requirements and shall be applied to all work performed by the Contractor (e.g., research, design/engineering, construction, operation, budget, mission, safety, and health). The Contractor shall ensure it maintains a robust Suspect/Counterfeit Items and Software Quality Assurance program controls.

American Society of Mechanical Engineers NQA-1, 2008, *Quality Assurance Requirements for Nuclear Facility Applications* and addenda through 2009 (referred to as NQA-1a-2009), shall be implemented as part of the Contractor's QA Program for work impacting nuclear safety, consistent with EM-QA-001, Rev.1. The required portions of NQA-1 to be implemented include: Introduction, Part I, and as applicable portions of Part II. NQA-1 Parts III and IV are to be used as guidance for the Contractor's QAP and implementing documents.

In accordance with H.64, the Contractor shall develop and implement a comprehensive Issues Management System using a "zero-threshold" level for the identification, assignment of significance category, and processing of issues identified within the Contractor's organization. The significance assigned to the issues shall be the basis for all actions taken by the Contractor in correcting the issue from initial causal analysis, reviews for reporting to DOE, through completion of Effectiveness Reviews, if required, based on the seriousness of the issue.

The Contractor shall submit for DOE approval a Contractor Assurance System Description as required by DOE O 226.1B, Implementation of DOE Oversight Policy. This document shall identify and address program and performance deficiencies, opportunities for improvement, and processes to report deficiencies to the responsible managers and authorities. The description shall establish and effectively implement corrective and preventive actions, and share lessons learned across all aspects of the work scope. The Contractor shall provide timely

notification to the Contracting Officer of significant assurance system changes prior to the changes being made.

Table C.2.EM.PA.0040.A001.07.DR.04.05-1 Quality Programs Milestones/Schedule	
Milestone	Date
Submittal of the Quality Assurance Program	90 days after NTP
QAP Review and Update	Initial update due 1 year after conclusion of transition, review annually and update as directed thereafter.
Contractor Assurance System Description	Initially due 160 days after NTP and update as directed thereafter.

EM.PA.0040.A001.07.DR.04.06 Quality System for Nondestructive Assay Characterization (QSNDA)

The Contractor shall accept or complete if not yet final/approved and implement the Paducah Site NDA Program that is compliant with DOE Order 414.1D, Quality Assurance. Prior to acceptance, the Contractor shall perform its own compliance verification of the program. Any identified non-compliances shall be brought to the attention of DOE. The Contractor shall comply with QSNDA requirements *DOE/PPPO/03-0235&D0, U.S Department of Energy Portsmouth/Paducah Project Office Quality System for Nondestructive Assay Characterization*. This program shall be capable of measuring waste drums of trapping media generated from the deposit/holdup removal program (5.5 weight % U²³⁵) and characterizing cells/piping and identifying deposits/hold-up to a level that supports the implementation of the NCS criticality incredible limits (CI) for the process equipment following deposit/holdup removal.

The Contractor shall ensure the program can be utilized to characterize process equipment within the process facilities including but not limited to:

- All piping/lines, converters, compressors, valves, instrument lines, expansion joints, etc.;
- Loose and/or spare converters, compressors, and other UF₆ process equipment such as valves, expansion joints, and piping that were either cut out of operating cells or are spare parts (this equipment is stored in various locations within the process buildings);
- Auxiliary equipment such as freezer sublimers, surge drums, cold traps, seal exhaust/wet air stations, purge and evacuation pumps, booster pumps/stations, holding drums, jet stations, autoclaves, sampling stations, chemical traps, accumulators, withdrawal stations, Normetex pumps, UF₆ condensers, etc.; and
- UF₆ instrumentation/monitoring equipment/systems such as line recorders, assay machines, seal exhaust, datum, etc.
- Any additional process equipment or process support equipment from the process facilities requiring characterization not specifically listed above.

The Contractor shall ensure that all NDA programs comply with DOE Order 414.1D, not just those performing the NDA of trapping material, piping, and cells.

The Contractor shall review these programs for acceptance and continue implementation of the programs during the performance of this PWS. This includes submitting changes to DOE for approval.

Table C.2.EM.PA.0040.A001.07.DR.04.06-1 QSNDAs Requirements Documents	
Document Number	Title
DOE/PPPO/03-0235&D0	U.S Department of Energy Portsmouth/Paducah Project Office Quality System for Nondestructive Assay Characterization

EM.PA.0040.A001.07.DR.11 Real and Personal Property Management

Administration of the real and personal property program is the responsibility of the Infrastructure Contractor including managing an automated database of all personal property actions related to acquisition, use and disposition. The Infrastructure Contractor is also responsible for managing the property inventory, databases, disposition operations, and providing input to FIMS and the Property Information Database System.

The Contractor shall provide new or updated data to the Infrastructure Contractor for input into FIMS for all facilities assigned under this Contract and shall support the annual FIMS data verification, including correcting any findings. The Contractor shall be responsible for ensuring FIMS data is accurate and up to date throughout Contract period of performance for assigned facilities. The Contractor shall be responsible for supplying FIMS information/updates for ad hoc requests from HQ.

The Contractor shall provide annual updates to the information contained in the PPPO Ten Year Site Plan, and provide support for review and resolution of comments. The Contractor is expected to be the information source authority for the facilities as assigned under this contract, and able to respond to DOE requests for information on real property under its control.

The Contractor shall interface with the PACRO to transfer eligible excess personal property per the PACRO/DOE Property Transition Agreement.

The Contractor shall develop a Real Property Transfer Plan to transfer real property to another party. The Contractor should target at least 500 acres for transfer. The Property Transfer Plan shall identify suitable Parcels for transfer along with a detailed cost and schedule for transferring each of the identified Parcels. The Contractor shall support additional property transfers as requested. The contractor shall perform all

required work to compile and/or develop all letters; title, activity and records searches; reports; drawings; photographs; and other documentation needed to transfer real property identified by the Contractor in the Property Transfer Plan and approved by DOE. The work performed shall be completed consistent with guidance in Planning and Due Diligence for Real Property Transfer (PPPO-M-3463195, D0) and Protocol for the Environmental Regulatory Processes for the Transfer of Real Property at the DOE Portsmouth and Paducah Sites, Volume 1: Uncontaminated Property (PPPO-3392287, D0) or their most recent revision. Transfers for economic development will be assumed to be to the Paducah Area Community Reuse Organization (PACRO). All required documentation shall be submitted to DOE for review and approval. Schedules for development of documentation shall be included with any proposed work.

The Contractor shall manage all assigned Government-owned accountable and non-accountable personal property in accordance with the requirements listed below and 41CFR101 and 41CFR109:

- a. Control classified equipment and material in accordance with DOE O 471.6, "Information Security,"
- b. Control high risk property in accordance with DOE Personal Property Letter 970-3, Rev.1, dated February 3, 1998, and
- c. Destruction or "rendering useless" of any component, equipment, and material, which are both surplus to the DOE and identified in the Nuclear Suppliers Group Trigger List or are nuclear weapon components or weapon-like components.

This includes establishing a system to track the assignment and status of high risk property specifically assigned to the Contractor. Prior to providing property to the Infrastructure Contractor for disposition, the Contractor shall characterize the property, maintain characterization records and provide those records at the time of property transfer to the Infrastructure Contractor.

The Contractor shall support DOE working with the Realty Officer or other assigned real estate personnel to receive concurrence or approval prior to executing any real property actions on behalf of this Contract. All Contractor real estate actions shall be accomplished in accordance with the DOE O 430.1C, Real Property and Asset Management.

Additionally, the Contractor shall provide DOE a monthly report documenting the purchase of new equipment (>\$5,000 single item value) including the lease/buy analysis and an evaluation against the existing Government Furnished Equipment.

The Contractor shall work with DOE Property Manager, Fleet Manager and Realty Officer and shall provide the property and vehicle reports in accordance with Section J, Attachment J-4, and Section J, Attachment J-13.

Table C.2.EM.PA.0040.A001.07.DR.11-1 Real and Personal Property Management Milestones/Schedule	
Milestone	Date
Submit the FIMS data for site facilities to the Infrastructure Contractor	August 15 and annually thereafter
Real Property Transfer Plan	90 days after transition is complete
Reports of loss, damage, periodic physical inventory data and inventory, & final inventory for Contract completion	1 year after transition is complete and annually thereafter
Motor Vehicle Fleet Reports (FAST)	1 year after transition is complete and annually thereafter
Formal letter documenting the purchase of new equipment (>\$5,000 single item value) including the lease/buy analysis and evaluation against the existing Government Furnished Equipment	Monthly

EM.PA.0040.A001.07.DR.12 Automated Supply Pilot Project

Historically, projects at PGDP manage large inventories of consumables and parts. Cost and efficiency, however, are not optimized. Costs have not been adequately allocated to users/projects, and large volumes of inventory is warehoused (which requires operational costs of facility management and maintenance) instead of receiving items “just-in-time” for users. In an effort to improve efficiency and reduce logistical cost, the Contractor shall plan and implement a Pilot Project to automatically distribute consumables and parts in support of field activities, (e.g., facility maintenance, vehicle maintenance, operations, and/or small construction projects) from one primary equipment distribution center. The common terminology for this commercially available technology is “Industrial Vending”.

The Contractor shall select one equipment distribution center to install “Industrial Vending System(s)”. The period for performance of this pilot project begins on day one after transition is complete and continues for 39 (thirty-nine) months. The pilot study shall be divided into three phases.

Phase 1 starts at day one after the Transition Period is complete and concludes after 18 months. The Phase 1 scope includes planning, data collection relative to conventional distribution methods in the planned pilot study area(s) (for comparative analysis of automated distribution data), training/familiarization of site personnel with the “Industrial Vending” equipment and procedures procurement of an “Industrial Vending” technology provider, and deployment of the equipment to provide the automated distribution capability at the beginning of Phase 2.

Phase 2 begins immediately after Phase 1 for a period of 18 months. The Contractor shall use the Phase 2 period to gather cost data and efficiencies to compare the “Industrial Vending” performance of the automated equipment against conventional distribution systems currently in use at the PGDP.

Phase 3 is 90 days in duration and begins immediately following Phase 2. At the end of Phase 3, the Contractor shall deliver, to DOE, a detailed report, comparing conventional equipment/parts distribution methods and “Industrial Vending”, including efficiencies (if any), cost benefits (if any), and recommendation(s) for future application of the Industrial Vending technology/process.

Table C.2.EM.PA.0040.A001.07.DR.12-1 Automated Supply Pilot Project Milestones/Schedule	
Milestone	Date
Complete Phase 1 of Automated Supply Pilot Project	18 months after completion of Transition
Complete Phase 2 of Automated Supply Pilot Project	36 months after completion of Transition
Complete Phase 3 of Automated Supply Pilot Project	39 months after completion of Transition
Automated Supply Pilot Project Report	39 months after completion of Transition

EM.PA.0040.A001.07.DR.13 Asset Recovery and Recycling

For all activities, the Contractor shall maximize use of recycling excess materials and equipment to reduce project costs in accordance with DOE O 436.1. The Contractor shall support DOE’s reindustrialization and asset re-utilization activities at the site and participate in DOE’s Paducah Project Investment Recovery Integrated Project Team (IPT Charter – PPPO-02-3330142-16).

The site has a large inventory of excess and obsolete parts and personal property. The Contractor shall develop and implement a Personal Property Transfer/Disposition Plan to identify and transfer/disposition these parts. The Contractor will develop a personal property disposition plan within 180 days along with a detailed cost and schedule for dispositioning excess personal property. The Contractor shall support additional personal property transfers as requested. The Contractor shall perform all required work to compile and/or develop all necessary letters, activity and records searches; reports; drawings, photographs, and other documentation needed to transfer personal property identified by the Contractor in the Personal Property Transfer Plan and approved by DOE. Personal Property Transfers will be assumed to be to the Paducah Area Community Reuse Organization (PACRO).

The Contractor shall actively recycle all non-contaminated recyclables: batteries, rubber, paper, glass, plastics, and metals and work with local and regional recyclers and with PACRO to maximize cost effectiveness. The Contractor shall

also establish recycling collection points on-site for other site contractors. The Contractor shall not release, for unrestricted use, any scrap metal from DOE radiological areas into commerce for recycling (Memorandum of "Release of Surplus and Scrap Materials", from Secretary Bill Richardson, dated July 13, 2000). Also, the Contractor shall not release, for unrestricted use, volumetrically-contaminated metal into commerce (Press Release "Energy Secretary Richardson Blocks Nickel Recycling at Oak Ridge", dated January 12, 2000). The Contractor shall comply with DOE policies that are developed to address or update the suspension or the moratorium. The Contractor shall provide an Asset Recovery and Recycling Program Plan within 180 days after NTP. The plan shall include an inventory of all materials and equipment that can be made available for recycle/reuse as well as volumes of regulated materials. The Contractor shall include those items that were recycled/reused in the previous year as well as those recycle/reuse activities planned for the upcoming year and future years as appropriate. The cost savings/cost avoidance along with volumes and weight of materials/equipment recycled/reused should be included for completed activities. Proceeds from asset recovery or recycling can only be used for the direct costs associated with the Contractor's recycling activities for that material; proceeds cannot be used to fund/supplement other projects. All other proceeds are returned to the Treasury.

Table C.2.EM.PA.0040.A001.07.DR.13.01-1 Asset Recovery and Recycling Milestones/Schedule	
Milestone	Date
Personal Property Disposition Plan	180 days after transition is complete, then annually thereafter
Asset Recovery and Recycling Program Plan	180 days after transition is complete, then updated annually

Table C.2.EM.PA.0040.A001.07.DR.13.01- Asset Recovery and Recycling Reference Document	
Document Number	Title
PPPO-02-3330142-16	IPT Charter

EM.PA.0040.A001.07.DR.14 Energy Efficiency

The Contractor shall assist DOE through direct participation and other support in achieving DOE's energy efficiency goals and objectives in electricity, water, thermal consumption, conservation, greenhouse gas reduction, climate control, and savings, including goals and objectives contained in Executive Order 13693, Planning for Federal Sustainability in the Next Decade. The Contractor shall maintain and update, as appropriate, its documents to include detailed plans and milestones for achieving site-specific energy efficiency goals and objectives. The Contractor shall maximize the use of Energy Savings Performance Contracts and Utility Energy Services Contracts. The Contractor will implement the Transformation Energy Action Management (TEAM) Goals and Initiatives and report the progress on achieving these goals and initiatives in

the Ten Year Site Plan, semi-annually to EM HQ, and upon request. At a minimum, the following initiatives shall be pursued:

- a. All purchases of office equipment shall be ENERGY STAR or DOE Federal Energy Management Program top 25th percentile. All new construction and major renovations shall be evaluated to achieve Leadership in Energy and Environmental Design (LEED) Gold certification.
- b. Decrease water consumption where practical, in all applicable buildings, trailers, and other structures and facilities.
- c. Develop Green purchasing program and incorporate Executive Order 13693 into new subcontracts.
- d. Increase energy efficiency by adding meters to buildings that meet the Department's cost-benefit analysis guidelines. Even on non-metered buildings, pursue energy savings opportunities such as fluorescent lighting, low flow shower heads, programmable thermostats, more efficient insulation, and other energy saving projects.
- e. Transition all fleet vehicles to alternative fuel as vehicles are replaced. Pursue plug-in hybrid electric vehicles where economically and operationally practical.
- f. Develop a Toxicity Reduction Plan. Develop toxicity reduction objectives and targets. Monitor ozone depletion substances, recovery, and recycling.
- g. Develop a plan to continually reduce greenhouse gas emissions by reducing energy use and cost, then finding renewable or alternative energy solutions.

Green and Sustainable Remediation and Innovative Technology – It is the DOE EM's goal to consider to the extent practical, Green and Sustainable Remediation (GSR) and Innovative Technology practices in all phases of this PWS and to implement such practices when they reduce costs, expedite project schedules, minimize risk, and maximize effectiveness. GSR and Innovative Technology practices should be evaluated for the phases of the PWS, and beyond, consistent with reducing activity impacts on future generations, resources, and the environment. The Contractor shall, to the extent practical utilize GSR practices to maximize sustainability, including but not limited to:

- reduce the environmental footprint of project activities;
- reduce waste generation, disposal, and landfill space;
- reduce energy and water usage;
- increase energy efficiency and minimize the use of non-renewable energy;
- conserve and efficiently manage resources and materials;
- promote carbon neutrality;
- reduce direct and indirect greenhouse gas and other emissions;
- promote reuse and recycling;
- foster green and healthy communities and working landscapes, which balance ecological;
- economic, and social goals;
- integrate the remedy with the end use;

- encourage green and sustainable re-development;
- maximize habitat value and create habitat;
- protect and preserve land resources; and
- minimize, eliminate, or contain pollution at its source.

As part of the project planning and alternative analyses efforts, the contractor should, to the extent practical, select an appropriate GSR/Innovative Technology practice to utilize to conduct the work scope. The contractor shall, to the extent practical, develop, plan, and implement GSR/Innovative Technology approaches, including examples of technologies listed as follows, but not limited to:

- Passive/no-flow sampling techniques;
- Direct-push drilling;
- Use of clean diesel or biofuels;
- Remote data collection, multi-increment sampling;
- Carbon offsets;
- Renewable energy;
- Field screening;
- Mobile laboratories;
- Waste minimization;
- Recycle/reuse ;
- GSR Best Management Practices (BMP); and
- Innovative approaches to public involvement.

The Contractor shall, to the extent practical develop and submit a life-cycle cost/benefit analysis demonstrating the pros and cons of each alternative analyzed and recommended for the project, including GSR/Innovative Technology practices. The contractor is encouraged to reference and quote, where possible, industry BMPs where costs and benefits are already known and published for expediency. The analysis shall include the net cost or net savings to the project/program by implementing that particular element. The Government will review the analysis and make the final determination on whether to proceed with implementation of the GSR/Innovative Technology practice or technology. During all phases of the project/program, the contractor shall, to the extent practical, consider and implement GSRI/Innovative Technology practices to achieve an overall sustainable remedy selection to:

- reduce costs;
- expedite project schedules;
- minimize risk; and
- maximize effectiveness.

In some cases, a GSR/Innovative Technology Practice may actually increase project costs, but still be approved by the Government because it helps achieve other DOE EM goals of improving the community or environment. In these cases, the cost increase will

not impact the contractor's incentive fee calculation.

To the extent practical, work plans and reports generated by the contractor in performance of work under this contract should document for the relevant scope of work the following:

- the GSR/Innovative Technology that was considered
- the GSR/Innovative Technology that was implemented
- the reasons that considered GSR/Innovative Technology was, or was not, implemented (for example, the results of the cost benefit analysis)

Table C.2.EM.PA.0040.A001.07.DR.14-1 Energy Efficiency Milestones/Schedule	
Milestone	Date
Develop and implement an Energy Efficiency Plan that incorporates all requirements of Executive Order 13693	90 days after conclusion of Transition
Green and Sustainable Remediation and Innovative Technology Report	Annually

EM.PA.0040.A001.07.DR.15 Records Management

The Contractor shall manage all records (regardless of media) generated/received in the performance of the Contract, including records obtained from a predecessor contractor (if applicable), in accordance with the Paducah Infrastructure Contractors Records Management Program, 44 U.S.C. 21; 44 U.S.C. 29; 44 U.S.C. 31; 44 U.S.C. 33; 44 U.S.C. 36; 36 CFR Chapter XII, Subchapter B, *Records Management*; DOE Order 243.1B, *Records Management Program*; and any other DOE requirements as directed by the CO. All records (in all formats, including email) subject to the management of the contractor (e.g., records in support of its operation), are to be inventoried, scheduled and dispositioned in accordance with federal laws, regulations, DOE Directives, the Infrastructure Contractors Records Management Program and an approved Records Management Plan. The Records Management Plan shall be submitted to the Government for approval within 60 calendar day after NTP and updated thereafter when changes occur.

Except for those defined as contractor-owned (in accordance with Department of Energy Acquisition Regulation (DEAR) 970.5204-3, "Access to and Ownership of Records," see Section I), all records (see 44 U.S.C. 3301 for the statutory definition of a record) acquired or generated by the Contractor in the performance of this Contract including, but not limited to, records from a predecessor contractor (if applicable) and records described by the Contract as being maintained in Privacy Act Systems of Records shall be the property of the Government.

The Contractor shall ensure all records (including email) are reviewed for classification, properly captured within the D&R of Documentum (Electronic Records Management System managed by the Infrastructure Contractor), and the

record copy is officially transferred in a timely manner on a routine basis to the Infrastructure Contractor. The Documentum D&R cabinet must be maintained to identify those records that have been transferred and are retained in the cabinet for “information only.” The filing system for the D&R cabinet of Documentum must be consistent or mapped consistently with the Infrastructure Contractor Electronic Records Management System. All records shall be in electronic format meeting National Archives and Records Administration (NARA) requirements (see below) and validated utilizing the Infrastructure Contractors Image Quality Statistical Sampling Plan. All records must be scheduled, arranged and cutoff by collections (e.g., case file, project, chronologic, numerical, alphabetical, etc.) for proper disposition in accordance with the NARA-approved DOE Records Disposition Schedules.

- a. Transmit record(s) in Portable Document Format (PDF), or other NARA-acceptable format, with a minimum resolution of 300 ppi for temporary records.
- b. Transmit record(s) in Portable Document Format (PDF)/Archival PDF/A, or other NARA-acceptable format for permanent records, with a minimum resolution in accordance with NARA guidance based on record (black and white, grey scale, color, digital image, etc.)
- c. Transfer shall ensure validation of scanned images (e.g. page count and legibility) and include all back-up data or drafts (if applicable) that would be required to be maintained to adequately document the work performed.
- d. Records Management staff to perform image quality statistical sampling on transfers in accordance with a DOE approved plan to ensure:
 - Optical character recognition process performed.
 - All text and markings are clear and legible.
 - All pages are legible or marked as "poor quality original."
 - Pages are rotated correctly.
 - Classification markings are clear and legible.
 - No security settings (e.g., encryption, passwords, and/or permissions) are included/embedded that would prevent opening, viewing, or printing a record.
 - For permanent records, if compression is needed, ensure lossless file compression technique is used (not lossy).
 - Utilize a preferred format (e.g., Portable Document Format/Archival PDF/A).
- e. All embedded fonts are identified publically as being legally embeddable in a file.
- f. Digital photographs shall meet NARA’s requirements of a minimum resolution of 3,000 pixels across the long dimension; images that are uncompressed or which make use of lossless compression, shall be scheduled, managed and captioned as required.

- Captioning shall include an index that includes: Photo #, date taken, program category (e.g., Environmental Management), site, detailed description/caption, including names of individuals where possible. Digital photographs can be captioned utilizing the properties feature, but must also include an index to link the two. See 36 CFR 1237 and NARA Bulletin for specific requirements.

g. For permanent records, ensure lossless file compression technique is used,

The Contractor shall manage records contained in electronic information systems (EIS) by incorporating recordkeeping controls into the system or export the records into Documentum in accordance with 36 CFR Part 1236, Electronic Records Management. The Contractor shall design and implement migration strategies to counteract hardware and software dependencies of electronic records whenever the records must be maintained and used beyond the life of the information system in which the records are originally created and captured. The Contractor shall provide a list of all EIS' to DOE annually utilizing the format provided by DOE.

The Contractor shall develop and maintain up-to-date records inventories and file plan(s) that provide for the identification, location, arrangement, assignment of disposition authority and retrieval of all categories (record series), ownership, quality assurance, etc., of records created and received.

The Contractor shall respond to records management data calls by NARA and DOE as requested and process record requests for the FOIA, the Privacy Act, the former worker medical screening program, the Chronic Beryllium Disease Prevention Program, congressional inquiries, legal discoveries and other record requests (e.g., training, personnel, exposure, project, incident reports, visitor's logs, etc.).

The Contractor shall ensure all records identified for inclusion in the administrative record are turned over to the Infrastructure Contractor for the inclusion in the Paducah Environmental Information Center in both hard copy and electronic format within 30 days of generation. The Contractor shall review any existing open administrative record project files and ensure the documents are appropriate and take necessary actions to correct any omissions or remove items that have been included in error.

At the completion of the project, the Contractor shall transfer all remaining records to the Paducah Infrastructure Contractor; no records will be transitioned to the subsequent contractor, unless they are active records specifically required for transition of responsibilities. Any records not turned over will be specifically identified during future transition and the incoming contractor will be required to acknowledge and accept full responsibility for those records, if retained.

The Contractor shall certify to DOE that all documents transferred to the subsequent Contractor contain no records, unless they are active records specifically required for transition of responsibilities and that all records have been turned over to the

Infrastructure Contractor. The Contractor shall provide a list of all contractor-owned records, where they will be shipped and the contact for those records.

The Contractor shall develop, implement and maintain sound document control systems and processes ensuring efficient tracking, retrieval, revision control and distribution of documents, including drawings.

The Contractor shall implement a consolidated Engineering Configuration Management System to ensure that current versions of all site drawings are electronically available and managed as controlled documents. This system should integrate drawings with Engineering Service Orders, as well as, integrate a controlled document system for drawing revisions (in process and final). This system should also integrate the current versions of drawings that have been separately maintained for the Remediation Program associated with the retained DOE facilities (non-leased) that would be associated with installed modified DOE facilities, including remediation projects (e.g. C-400 Electrical Resistance Heating system, Northwest and Northeast Pump and Treat Systems, C-746-U landfill, C-755 and C-764 Complexes). Additionally, the system should include configuration management of the Solid Waste Management Units for the Paducah Site.

The Contractor is to consolidate the historical Remediation Program drawings and formerly leased facilities into one site-wide Engineering Management System. Historical Remediation Program drawings are available in multiple format such as pdf, raw format (.dwg) and hardcopy will be scanned and submitted as a record to the Infrastructure Contractor as a record copy as part of the process of consolidation. The Contractor shall submit a detailed Engineering Configuration Management System Plan within 30 days after completion of transition for electronic management of historical and current engineering drawings to include the process for storage and retrieval of current and historical documents for future deactivation and remediation program use. The plan should identify the interfaces between the ESO system, the Documentum D&R cabinet, and the Infrastructure Contractor Electronic Records Management System (Documentum). The document will also include a schedule for consolidation of drawings (electronic and hardcopy), submittal of records to the Infrastructure Contractor, and full implementation of the Engineering Configuration Management System for all site-wide engineering drawings.

Table C.2.EM.PA.0040.A001.07.DR.15-1 Records Management Milestones/Schedule	
Milestone	Date
Records Management Plan	60 days after NTP
Vital/Essential Records Plan and Inventory	121 days after NTP
Electronic Information System	Annually
Records Management Close-out/Transition Plan	180 days prior to end of the POP
Contractor Document Certification	14 days prior to end of the POP
Engineering Configuration Management System Plan	30 days after completion of Transition

EM.PA.0040.A001.07.DR.16 Continuity Program

The Contractor shall develop implement, and update, as necessary, a Site Wide Continuity of Operations (COOP) Program per DOE Order 150.1A. The Contractor shall develop and implement a COOP Implementation Plan or Business Recovery Plan that documents the COOP Program. DOE approval of the Plan is required. The COOP program is designed to:

- a. Assist the Department in continuing to accomplish Departmental mission essential functions (MEFs), primary mission essential functions (PMEFs), and essential supporting activities (ESAs);
- b. Be integrated with other Paducah contractor organizations and the Emergency Management Program; and
- c. Address preparedness and response to epidemic and pandemic events.

The Contractor shall submit the Continuity Readiness Assurance Report in accordance with DOE Order 150.1A.

Table C.2.EM.PA.0040.A001.07.DR.16-1 Continuity Program Milestones/Schedule	
Milestone	Date
Site Wide COOP Program Implementation Plan and updates as necessary	60 days after completion of Transition an as revised thereafter
Submittal of the site wide Continuity Readiness Assurance Report (CRAR)	Annually Before September 30 th (submitted with ERAP)

EM.PA.0040.A001.07.DR.17 DOE Consolidated Audit Program

The DOECAP is a consolidated audit program with DOE complex-wide participation that conducts annual audits of analytical environmental laboratories and commercial treatment, storage, and disposal facilities (TSDFs) that have contracts or agreements to provide services to DOE. DOECAP audits are performed on behalf of, and with the participation of, sites throughout the DOE complex. The six DOECAP laboratory audit areas include Quality Assurance Management Systems and General Laboratory Practices, Data Quality for Organic Analyses, Data Quality for Inorganic and Wet Chemistry Analyses, Data Quality for Radiochemistry Analyses, Laboratory Information Management Systems and Electronic Data Management, and Hazardous and Radioactive Materials Management. The seven DOECAP TSDF audit areas include Quality Assurance Management Systems, Sampling and Analytical Data Quality, Waste Operations, Environmental Compliance/Permitting, Radiological Control, Industrial and Chemical Safety, and Transportation Management.

The Contractor shall perform all activities to:

- a. Provide at least one qualified candidate to participate as an audit team member in as many as four TSDF DOECAP audits each year, (a total of four

- candidates maximum, but that may also be the same individual(s) so long as no audit schedule is impacted), as requested by DOE.
- b. Perform pre-audit activities, including but not limited to, requesting and reviewing pre-audit information from the audited facilities and participating in conference calls.
 - c. Perform audit activities.
 - d. Perform post-audit activities, including but not limited to, completing and issuing audit reports and notifying the audited facility of acceptance of the proposed CAP.
 - e. Perform work in accordance with applicable DOECAP policies and procedures

EM.PA.0040.A001.07.DR.18 Project Close-out and Completion

The Contractor shall provide all necessary support for a smooth transition/turnover at the end of the Contract. Six (6) months prior to the expiration of the Contract, the Contractor shall submit the Contract Close-out Plan for DOE approval. The Contract Close-out Plan shall include all remaining administrative matters necessary to close out the Contract after the POP, including, but not limited to: resolution of remaining and open agreements, resolution of remaining and open litigation; audit of indirect costs; remaining records disposition required by the Government; or any other activities required by the Contract. The Plan shall identify the costs and provide a schedule and should indicate if the costs are direct or indirect and how they will be charged. Contract closeout activities shall be completed within 180 days after the end of the POP, with the exception of the required accounting and auditing functions.

Ninety days prior to the end of the POP, the Contractor shall submit to DOE, a comprehensive environmental compliance report demonstrating compliance with all applicable environmental regulatory requirements.

One hundred and twenty (120) days prior to the expiration of the contract, the Contractor shall submit a detailed Contract Completion Transition Plan. The Contract Completion Transition Plan shall include the approach the Contractor will take to ensure the successful transfer of responsibility in the following areas, to a follow-on Contractor at the end of the POP:

- a. transition of all facilities, facility operations, and environmental permits to the follow-on contractor;
- b. support due diligence walk downs of facilities and other areas;
- c. transfer of existing program documents to include deactivation and environmental remediation services;
- d. transfer of authorization basis documents;
- e. transitioning of staff;
- f. transferring procurement activities for materials, equipment, supplies, parts, and subcontractors required for a seamless transition;
- g. destruction of all non-records that are not desired by the incoming Contractor; and

- h. transfer of all records to the Infrastructure Contractor Records Management Center, in accordance with this contract.

The Contractor shall work with the incoming D&R Project Contractor to align transition activities and to support a smooth transition. Any areas that the Contractor believes are being missed shall be brought to DOE's attention

Table C.2.EM.PA.0040.A001.07.DR.18-1 End of Contract Performance Milestones/Schedule	
Milestone	Date
Contract Close-out Plan	180 days before end of POP
Contract Completion Transition Plan	120 days before end of POP
Environmental Compliance Report	90 days before end of POP

EM.PA.0040.A001.07.DR.19 Worker Pensions & Retirement Health Benefits

The Contractor shall become a sponsor/participating employer in the East Tennessee Technology Park Multiple Employer Pension Plan for Grandfathered Employees (ETTP MEPP), the East Tennessee Technology Park Multiple Employer Welfare Arrangement (ETTP MEWA). The requirements associated with this responsibility are set forth in Section H.

The Contractor shall perform the premium remittance (employer cost share) and employer reporting duties for the inactive population of eligible former Remediation Contractor employees (e.g. Retirees, Displaced Workers, Consolidated Omnibus Budget Reconciliation Act (COBRA), and Long-Term Disability). Under the UCOR's prime contact with the DOE, UCOR has the responsibility to administer MEPP/MEWA Pad/Ports benefits, however, the funds will be provided to UCOR through this contract. There will be no fee associated with the pass-through costs paid to UCOR. Consistent with Section B of the RFP, fee applies to administration costs only.

EM.PA.0040.A001.07.DR.20 Nuclear Materials Control and Accountability

The Contractor shall manage and implement the site's Nuclear Materials Control and Accountability (NMC&A) Program. The NMC&A Group will include a balance of staff to include an appropriate mix of accountants, NMC&A Engineers, IT, and other specialties as necessary. The NMC&A group shall be organizationally independent of all site operations management. The Contractor shall comply with DOE Orders including, but not limited to, DOE O 474.2 Change 4 and DOE O 410.2, and optimize the cost-effectiveness of the program for all reportable quantities of accountable of nuclear material in the scope of this contract on the Paducah site, and for use by other Paducah site contractors. The Contractor shall, in consultation with the ODSA, assist with the preparation of the NMC&A Section of the SSP and provide assurance that the NMC&A Section of the SSP is correct and/or provide changes to the ODSA.

The Contractor shall:

- a. Provide a NMC&A Plan addressing all accountable nuclear materials in this contract scope and assist in the development of the NMC&A Plan required by other Paducah site contractors performing NMC&A activities;
- b. Manage and conduct a centralized NMC&A Program for all accountable quantities of nuclear material on the Paducah site including, but not limited to, nuclear material accounting, NMC&A Training for the Paducah site, assessments and self-assessments, oversight of measurements required by the NMC&A Program, reporting nuclear material transactions to Nuclear Materials Management and Safeguards System, and assuring necessary site expertise for compliance with DOE NMC&A requirements;
- c. Perform NMC&A activities which include warehousing, surveillance, characterization, planning, brokering, packaging, consolidation, preparation, and shipping of the inventory of depleted, normal and enriched Nuclear Materials;
- d. Perform final disposition (including but not limited to relocation to other DOE sites or DOE contractors for storage/programmatic use and/or sale to the private sector and/or disposal) of all remaining Nuclear Material inventory including product and waste;
- e. Provide necessary reports and information to support DOE-HQ Nuclear Materials Management and Safeguard System; and
- f. Provide necessary reports to PPPO regarding clarification of the status of the nuclear material inventory.

Table C.2.EM.PA.0040.A001.07.DR.20-1 NMC&A Reference Documentation	
Document Number	Title
Not Designated	NMC&A Inventory

Table C.2.EM.PA.0040.A001.07.DR.20-2 NMC&A Milestones/Schedule	
Milestone	Date
Submittal of NMC&A Plan	90 days after NTP and Annually thereafter or following significant program change
Submit the NMC&A SSP Section to the ODSA	90 days after NTP and Annually thereafter in a schedule agreed to by the ODSA

EM.PA.0040.A001.07.DR.21 Information Services and Communications

The Contractor shall maintain a functioning Information Services Program. The Information Services organization provided by the Contractor shall provide project management for information systems and software asset management. This will also consist of the supporting of Contractor users and applications; database and web

application development; technology planning, scheduling, cost estimating, and contracting; and other activities to meet information and communications needs for execution of the Contractor's project scope.

Other technical activities performed by Contractor shall include:

- Provide IT management, planning, and coordination for the Contractor's project scope;
- Communicate project computing and telecommunications requirements to the Infrastructure Contractor;
- Provide for the development and implementation of non-enterprise applications, web sites, and databases, in support of the Contractor's project work scope;
- Provide user support, maintenance, and administration of non-enterprise software applications, in support of the Contractor's project work scope;
- Support implementation of software quality assurance requirements specified in DOE O 414.1D, *Quality Assurance*, as well as guidance provided in DOE G 414.1-4, Safety Software Guide for Use with 10 CFR 830, Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance; and
- Support project management of IT hardware and software projects, as specified in DOE O 415.1 Change 2, Information Technology Project Management.
- Provide electronic access to the Contractor's server containing approved controlled documents (policies, programs, procedures, safety bases documents, engineering drawings, etc.) for up to 25 DOE/ETS personnel as requested and also provide access to the Issue Management/Corrective Action database for at least 10 DOE/ETS personnel.

The Contractor's Information Services organization shall also provide IT Project Management that includes the following:

- Provide IT management for non-enterprise project-specific software systems, as specified in DOE O 200.1A, Change 1, Information Technology Management;
- Coordinate and support Infrastructure Contractor information security planning and site-wide reporting requirements; and
- Ensure procedure and process compliance to management directives, procedures, and standards.

The Cyber Security Program and implementation of the program is provided by the Infrastructure Contractor. The Contractor shall support the Infrastructure Contractor in complying with DOE O 205.1C, Department of Energy Cybersecurity Program and DOE O 206.2, Identity, Credential, and Access Management (ICAM), which includes, but is not limited to, classified cyber security, unclassified cyber security, and telecommunications security.

The Contractor is responsible for providing radios for emergency and routine day-to-day use. Radios should be compatible with an 800 MHz EDACS trunking radio system. Operating frequencies are between 810MHz and 861MHz.

The Infrastructure Contractor is responsible for enterprise applications and installed hardware, providing telephones (landline and cellular), copiers, and computers and hardware maintenance consistent with Section J, Attachment J – 12, Government Furnished Services and Items. The Contractor should attain Infrastructure Contractor approval for any required changes to these information and communication systems. The Infrastructure Contractor is responsible for reviewing and approving the changes.

EM.PA.0040.A001.07.DR.22 Laundry

The Contractor shall be responsible for laundry services for work performed under the PWS. The Contractor shall also provide these services to the ETS contractor and DOE.

The Contractor shall provide pickup and distribution of laundry across the Paducah site. The Contractor shall provide subcontracted off-site laundry services or self-performing laundry services, whichever is determined to be the best value to the Government, for work performed under the PWS, including:

- Providing materials, services, testing devices, and all items necessary for the laundering, disinfecting, sanitizing, transporting, testing, evaluating, and ensuring quality of the Laundry Service;
- Providing resources necessary for radiological support for collection and redistribution of Laundry;
- Supplying adequate labor, supervision, tools, equipment, etc. for on-site pickup and delivery to and from Paducah facilities; and
- Providing laundry services for DOE and the ETS contractor.

EM.PA.0040.A001.14.DR C-400 VAPOR INTRUSION STUDY

EM.PA.0040.A001.14.DR.01 C-400 Vapor Intrusion Study

The Contractor shall complete field work; verification, validation, and analysis of Vapor Intrusion Study analytical data; and document the results of the study in a Five-Year Review Addendum Report in accordance with the C-400 Vapor Intrusion Study Work Plan and the Memorandum of Agreement for Resolution of Informal Dispute for the C-400 Vapor Intrusion Study Work Plan.

Table C.2.EM.PA.0040.A001.14.DR.01-1 C-400 Vapor Intrusion Study Reference Documentation	
Document Number	Title
DOE/LX/07-2403&D2/R1	C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky
DOE Letter PPPO-02-4310559-17	Memorandum of Agreement for Resolution of Informal Dispute for the C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE/LX/07-2403&D2/R1)

Table C.2.EM.PA.0040.A001.04.DR.01-2 C-400 Vapor Intrusion Study Milestones/Schedule	
Milestone	Date
Five-Year Review Addendum Report	Within 90 days after receipt of laboratory data

EM.PA.0040.A002.03.DR ON-SITE WASTE DISPOSAL FACILITY (OSWDF)

EM.PA.0040.A002.03.DR.02.01 OSWDF Remedial Investigation/Feasibility Study

The Contractor shall support DOE in finalizing and obtaining regulatory approval of the D2/R1 Remedial Investigation/Feasibility Study for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE/LX/07-0244&D2/R1). The Contractor shall also support meetings and discussions to resolve comments or dispute conditions.

Table C.2.EM.PA.0040.A002.03.DR.02.01-1 OSWDF Remedial Investigation/Feasibility Study (RI/FS) Milestones/Schedule	
Milestone	Date
Submittal of the D2/R1 OSWDF RI/FS to the regulatory agencies	Within 50 days of signature of the Memorandum of Agreement

EM.PA.0040.A002.04.DR WASTE OPERATIONS

EM.PA.0040.A002.04.DR.01 Waste Operations

The Contractor, to the extent necessary to comply with regulatory and DOE requirements, shall operate and maintain a compliant Waste Management Program. Waste is considered disposed of when it has been shipped to and accepted for final disposition at a properly licensed and permitted disposal site. The Contractor shall avoid generating waste from any operations within the PWS with no pathway for disposal. The Contractor shall take all reasonable actions to minimize waste

generation and to preclude the generation of TRU and MTRU wastes from any operations within the PWS. The Contractor shall obtain DOE approval prior to generation of TRU or MTRU waste. The Contractor shall assist DOE in evaluating disposal site alternatives (e.g., cost/benefit analyses, NEPA documentation).

The Contractor shall utilize any facilities available for cost-effective storage and processing to comply with nuclear safety requirements (e.g., storage of fissile waste). However, the contractor shall try to maximize the use of satellite storage areas, satellite accumulation areas, and 90 Day Storage Areas, while minimizing the need to keep and process waste in waste storage facilities.

The Contractor shall compliantly manage, characterize, process, and package all waste generated with certification as required during this Contract. The Contractor shall also be responsible for dispositioning all waste generated or received prior to 90 days before this Contract expires. This includes final characterization, packaging, labeling, and final disposition of all acceptable waste (e.g. not sanitary waste) from the Infrastructure Contractor, Tennessee Valley Authority (TVA) (primarily expected to be MLLW), or that which was left behind by the incumbent contractor. Waste generated and in process for disposition by previous contractors is expected to exist. The Contractor shall disposition the wastes from the previous contractors, and notify DOE upon completion. For all activities, the Contractor shall maximize use of recycling excess materials and equipment to reduce project costs.

Waste generated from environmental remediation activities using the CERCLA process (in accordance with Executive Order 12580, Superfund Implementation) shall comply with the requirements of DOE O 435.1 (and subsequent revision e.g., DOE O 435.1A), Radioactive Waste Management, DOE M 435.1-1, Radioactive Waste Management Manual, and any other requirements, as specified in the CERCLA ARARs for the projects.

The Contractor shall manage the generated CERCLA Project wastes, including all secondary wastes, such that the waste disposal is ongoing during the remediation/removal activity, all waste disposal is completed within 45 days after the completion of the remedial/removal process, and waste disposal is completed prior to submittal of the D1 Remedial Action Completion Report (RACR) or D1 Completion Notice to DOE.

All waste management activities shall meet the appropriate waste acceptance criteria with certification, as appropriate, for approved waste disposition/disposal options. The Contractor, in compliance with DOE M 435.1-1 requirements, shall prepare exemption requests for use of non-DOE treatment, storage, and disposal facilities, which includes lifecycle cost analysis for disposition (non-DOE treatment, storage, or disposal) options considered. The Contractor has access to the national IDIQ disposal and Basic Ordering Agreement treatment contracts (i.e., DOE LL/ MLLW Disposal Services IDIQ Contracts and DOE LL/ MLLW Treatment Services Basic Ordering Agreements) as needed for the execution of waste management activities.

The Contractor shall develop, submit, and maintain a Waste Management Plan in accordance with DOE M 435.1 and obtain DOE approval. The Waste Management Plan should reflect an integrated overarching approach to waste management that minimizes generation, maximizes recycling and reuse, and moves the site toward elimination of waste processing and storage at the PGDP as early as possible.

The Contractor shall ensure operation of storage and treatment areas or facilities, and comply with all permits, orders, and regulatory requirements. The Contractor shall, to the extent possible, minimize the number of facilities used for waste storage and waste/materials in storage.

The Contractor shall establish an accounting system and baseline (i.e., CPB) such that Waste Operations costs (fully burdened) are distributed to the projects generating the wastes and utilizing these services, other than those costs directly associated with the management and disposition of: 1) the previous contractor's wastes (90 Day inventory), 2) TVA waste, 3) other site contractor waste, and 4) programmatic costs that cannot specifically be attributed to a particular project.

The Contractor may distribute the S&M and associated regulatory compliance activities required for having the facilities to either the S&M WBS or WBS where project management support is captured in lieu of allocating the costs to the projects that are generating the wastes.

The Contractor shall perform all activities to:

- a. Operate and maintain the waste storage facilities identified in Table C.2.EM.PA.0040.A002.04.DR.01-1 in compliance with applicable permits, and restrictions. Any facilities not required or effective for operations shall be compliantly placed into STANDBY mode and DOE concurrence gained prior to deactivation shutdown.
- b. The Contractor shall continue any waste determination efforts regarding De-Listing Waste and as described within the 2003 Agreed Order Site-Wide Contained-In determinations.
- c. Comply with the agreement with the Tennessee Valley Authority (TVA) Shawnee Fossil Plant for DOE to accept certain ⁹⁹Tc contaminated waste associated with the PDGP ⁹⁹Tc groundwater plume.
- d. Waste generated during the execution of this Contract may require treatment prior to final disposition. Subject to regulatory requirements to meet the waste acceptance criteria for disposal, treatment services may be performed on-site, off-site, or at other DOE facilities. The Contractor, in compliance with DOE M 435.1-1 requirements, shall prepare exemption requests for use of non-DOE treatment, storage, and disposal facilities, which includes lifecycle cost analysis for disposition (non-DOE treatment, storage, or disposal) options considered.

- e. The contractor shall also develop and maintain summary information for Nevada National Security Site (NNSS) on waste stream life-cycle projections planned for treatment facilities, including forecasts and updates as requested by NNSS throughout the year.
- f. The Contractor shall perform all activities associated with the characterization, packaging, handling and hauling/transportation of waste to various facilities with waste certification as appropriate. This includes the transport to off-site and on-site treatment and/or storage facilities and off-site and on-site disposal facilities. All packaging and transportation practices shall be in accordance with applicable Federal, state, and local regulations and requirements. In addition, the Contractor shall:
 - i. Consider the DOE-negotiated tender for transportation services.
 - ii. Procure necessary packaging and carrier services for transport to/from treatment facilities and to disposal facilities;
 - iii. Make the appropriate requests and gain approval from the DOE ODSA for classified shipments;
 - iv. Develop appropriate transportation plans, including transportation security plans, for various waste types, obtain appropriate transport permits, and coordinate with DOE as appropriate; and
 - v. Receive and manage the disposal certificates for all wastes shipped off-site.
 - vi. Establish or accept the current existing program for meeting the NNSS waste certification process.
 - vii. Annually report LLW/MLLW volumes for prior year actual and forecast shipments as requested by the DOE Office of Environmental Management.
 - viii. Provide auditor support for DOECAP audits of commercial facilities if non-DOE treatment and disposal services are used.

Table C.2.EM.PA.0040.A002.04.DR.01-1							
Waste Storage Facilities							
Building Number	Building Title	FT ²	Bldg. Description	Waste Type			
				RCRA	RCRA / TSCA	TSCA	LLW
C-733	Waste Oil and Chemical Storage Facility	4,224	Covered structure enclosed by a wall on one side and fencing on the other sides. This building is RCRA permitted and holds the flammable/ignitable hazardous material.	X	X		X
C-746-B1	Staging Area	71,000	Waste staging area west of C-746-A. Gravel pad used to store scrap metal, pallets,				X

Table C.2.EM.PA.0040.A002.04.DR.01-1 Waste Storage Facilities							
Building Number	Building Title	FT ²	Bldg. Description	Waste Type			
				RCRA	RCRA / TSCA	TSCA	LLW
			etc. for size reduction prior to going for disposal.				
C-746-H3	Storage Area	56,150	Concrete slab for 90-day storage of RCRA material. Two clean shell structures are located on the pad for storing LLW and solid waste.	X			X
C-746-Q	Hazardous and Low-Level Waste Storage Facility	33,165	Prefabricated metal building that stores RCRA and LLW. Material that requires nuclear criticality storage is located here. Some USEC waste is stored in the building. This is a Haz Cat 2 Facility.	X	X	X	X
C-746-V	Waste Staging Area	10,000	Outside gravel pad. LLW and solid waste is temporarily stored here.				X
C-752-A	Waste Storage Facility	43,600	Prefabricated metal building used for operations and storage of waste. This building is permitted for RCRA storage and treatment. The southeast corner of the building has a structure for waste treatment that can be isolated from the rest of the building and hooked to air containment systems. Treatment for wastewater occurs here by activated carbon or a low capacity ultraviolet light system. The building is also used for sorting and packaging waste.	X	X	X	X
C-753-A	TSCA Storage	31,600	Prefabricated metal building used for storage of TSCA waste. Sorting and packing operations also occur here.			X	X

Table C.2.EM.PA.0040.A002.04.DR.01-1 Waste Storage Facilities							
Building Number	Building Title	FT ²	Bldg. Description	Waste Type			
				RCRA	RCRA / TSCA	TSCA	LLW
C-754	Low Level Waste Storage	7872	Sprung Structure				X
C-757	Solid and LL Waste Processing	10,000	Waste management staging & processing				X
C-759	Staging Area	124,893	Gravel pad for waste staging and processing				X
C-760	Pad	104,822	90-day accumulation area				X
C-761	Staging Area	71,046	Gravel pad for waste staging and processing				X
C-746-Q1		16,335	This unit is part of the C-746-Q facility designed to manage both solid and liquid hazardous wastes. Wastes are stored in containers. This unit currently is permitted for the crushing of light bulbs and for chemical treatment of hazardous wastes in containers. This is a Haz Cat 2 Facility.	X	X		X

LLW = low-level waste

RCRA = Resource Conservation and Recovery Act of 1976

TSCA = Toxic Substances Control Act of 1976, Public Law 94-469, October 11, 1976, 15 USC Section 2622

Source: DOE/LX/07-0035&D1, Scoping Document for CERCLA Waste Disposal Alternatives Evaluation Remedial Investigation/Feasibility Study at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Table C.2.EM.PA.0040.A002.04.DR.01-2 Waste Operations Requirements Documents	
Document Number	Title
DWM-31434-042	2003 Agreed Order Site-Wide Contained-In Determinations
NA	Agreement with Tennessee Valley Authority (TVA) Shawnee Fossil Plant for DOE to accept Certain ⁹⁹ Tc contaminated wastes
CP2-WM-0011/R0	Waste Acceptance Criteria for the Treatment, Storage, and Disposal Facilities at the Paducah U.S. Department of Energy Site, December 2015
DWM-30039-042	1997 Agreed Order for Site Treatment Plan
Permit Numbers 073-00045, 073-00014, 073-00015	Kentucky Division of Waste Management C-746-U, C-746-S and C-746-T Landfills Solid Waste Permits

Table C.2.EM.PA.0040.A002.04.DR.01-2 Waste Operations Requirements Documents	
Document Number	Title
Permit Number KY8-890-008-982	Kentucky Division of Waste Management Hazardous Waste Management Facilities Permit, includes the Hazardous and Solid Waste Amendments permit issued by U.S. EPA

Table C.2.EM.PA.0040.A002.04.DR.01-3 Waste Management Operations Milestones/Schedule	
Milestone	Date
Submit Waste Management Plan	90 days after NTP
Complete disposition of wastes remaining from previous contractors and TVA	180 days after transition is complete

EM.PA.0040.A002.05.DR LANDFILL OPERATIONS

The Paducah Site has one 60-acre Subtitle D landfill (approximately 22 acres are permitted for disposal) that is currently operational and is designated as the C-746-U landfill. The landfill waste acceptance criteria prohibits the disposal of classified, hazardous, or Low Level Waste (LLW). However, waste within authorized limits for radionuclides may be disposed in the C-746-U landfill. The location of the landfill is outside the security fence. Five of 23 phases within the C-746-U landfill are currently active. The landfill has a capacity to accept an estimated 1.18 million cubic yards of waste, and currently contains an estimated 115,000 cubic yards. C-746-S and C-746-T are two closed landfills that are currently permitted.

EM.PA.0040.A002.05.DR.01 Operate the Landfills

The Contractor shall perform all activities to operate and maintain the three landfills (C-746-U, C-746-S, and C-746-T) in accordance with Kentucky regulations, DOE requirements (e.g., authorized limits), closure and post-closure requirements, and the operating permit, to include but not limited to, the following:

- a. Accept waste (including waste from other site contractors or TVA) that meets the requirements of the permit.
- b. Operate and maintain the leachate collection and treatment systems at C-746-U and C-746-S (Note: C-746-T does not have a leachate collection system). Collect, characterize, transport, treat as necessary, and discharge all leachate, (including leachate from any new cells constructed/operated) estimated at 825,000 gallons of leachate annually (five year trending average) from the C-746-U Cells 1-5 (798,000 gallons) and C-746-S (27,000 gallons) at an approved wastewater treatment facility. C-746-U leachate is collected and pumped into leachate storage tanks. Leachate from C-746-S is collected in a sump and transferred into tanker trucks where it can be transferred to the leachate storage tanks. Leachate is treated in the C-746-U leachate treatment system. Treatment of the leachate (transferred via tanker trucks) at C-615 is

- allowed by the site's various permits when the C-746-U treatment system is unavailable or leachate treatment demands exceed the C-746-U treatment system capacity (such as during maintenance or discharges into outfall 19).
- c. Continue the implementation of the Toxicity Reduction Evaluation Plan for Kentucky Pollutant Discharge Elimination System Permit No. KY0004049 – Outfall 020. Evaluate the C-746-U leachate treatment system's effectiveness and efficiency in light of recent toxicity issues. Submit a report with recommendations for improvement to the system including a cost estimate and schedule for any upgrades. The report should also address permit modification implications (i.e., minor or major modification).
 - d. Be named as the operator on the permit for the C-746-U, C-746-S and C-746-T landfills, the RCRA permit, and the KPDES permit. If this work is subcontracted out, the Contractor shall remain named as the operator. Additionally, the Contractor shall be designated as the waste generator and responsible for making waste determinations at the site. The Contractor shall enter into a RCRA co-generator agreement with DOE consistent with the existing agreement at the Paducah Site.
 - e. Operate and maintain buildings and structures.
 - f. Install and implement revisions to the leachate collection system that includes removal of apatite media and addition of more carbon filtration media downstream of existing ion exchange vessels in accordance with the Kentucky Division of Waste Management approved permit modification. The Contractor shall perform all startup and testing required to bring the system online and ensure the system is functioning properly to treat for dissolved metals, primarily uranium, and does not contribute to toxicity failures in the future.

Table C.2.EM.PA.0040.A002.05.DR.01-1 Operate the Landfills Reference Documentation	
Reference Number	Title
FPAD-17-2455	Toxicity Reduction Evaluation Plan for Kentucky Pollutant Discharge Elimination System Permit No. KY0004049 – Outfall 020

Table C.2.EM.PA.0040.A002.05.DR.01-2 Operate the Landfills Milestones/Schedule	
Milestone	Date
Submit a report on the evaluation of the leachate treatment systems at C-746-U	Within 90 days after transition has ended
Complete installation, implementation, and startup of modified leachate collection system in accordance with approved permit modification to resolve contribution to toxicity failures	Within 60 days of receipt of contract modification or permit modification approval, whichever is later

EM.PA.0040.A002.05.DR.02 Landfill Expansion

As indicated above, five (5) of 23 cells within the C-746-U landfill are currently active. DOE has projected the need for two (2) additional cells to be designed and constructed. The Contractor shall perform all activities necessary to complete the design and gain regulatory approval (via permit modification) for design and construction of two new cells at the C-746-U Landfill. The two additional cells need to be available based on the Contractor's estimated need for additional disposal space.

Table C.2.EM.PA.0040.A002.05.DR.02-1 C-746-U Landfill Expansion Reference Documentation	
Reference Number	Title
KDWM Solid Waste Permits SW07300015, SW07300014, and SW07300045	Solid Waste Permit for C-746-S, C-746-T, and C-746-U Landfills, July 21, 2015
N/A	C-746-U Technical Application for a Solid Waste Landfill (August 1994)

Table C.2.EM.PA.0040.A002.05.DR.02-2 C-746-U Landfill Expansion Milestones/Schedule	
Milestone	Date
Submit C-746-U Landfill Expansion Design and Permit Modification Package for DOE Approval	01/26/2021
Complete design and construction of two new cells and any necessary changes to the leachate treatment system. Cells must be operational.	NLT the end of FY22

EM.PA.0040.A005.02.DR SOUTHWEST PLUME SOURCES REMEDIATION

EM.PA.0040.A005.02.DR.02 SWMUs 211 A&B Remediation

The Contractor shall complete the installation of the Bio-Remediation delivery system and monitoring system, including monitoring wells at SWMU 211A needed to implement long-term monitoring of the source areas. The Contractor shall implement the Bio-Remediation remedy as specified in the applicable CERCLA documents. The Contractor shall complete the Remedial Action Completion Report (RACR) for SWMU 211A and implement long-term monitoring. The Contractor shall perform all activities supporting the long-term monitoring of the Southwest Plume Sources, including sampling and analyses necessary to: demonstrate the effectiveness of the treatment; the development and submittal of all regulatory documents and reports; and compliant waste disposal. All wastes generated up to 90 days prior to the end of the Contract must be disposed of prior to the end of the period of performance.

As a result of the successful completion of the active treatment of the SW Plume Source (SWMU 211A), the contractor shall perform long-term monitoring of the source area for one year under the project and then incorporate additional years of

monitoring into the Paducah Site EMP. All data shall be included in the CERCLA 5-Year Site Review and the FFA Semi-annual Report. The initial deliverables submitted to DOE shall be of sufficient quality, depth, thoroughness, and format to support DOE approval.

The current ROD alternatives for SWMU 211B (Long-Term Monitoring or Bio-Remediation) are no longer appropriate based on recent data collected in support of remedy selection. The Contractor shall support future planning, as well as any scoping that is necessary, and regulatory activities for a path forward for SWMU 211B. No regulatory documents or fieldwork is included in this PWS.

Table C.2.EM.PA.0040.A005.02.DR.02-1 SWMUs 211 A&B Remediation Requirements Documents	
Document Number	Title
DOE/LX/07-0186&D2	Memorandum of Agreement for Resolution of Informal Dispute for the Focused Feasibility Study for the Southwest Plume Volatile Organic Compound Sources (Oil Land farm and C-720 Northeast and South East Sites) at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, 2010
DOE/LX/07-0365&D2/R1	Record of Decision for Solid Waste Management Units 1, 211-A, 211-B, and Part of 102 Volatile Organic Compound Sources for the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, March 2012
DOE/LX/07-1288&D2	Final Characterization Report for Solid Waste Management Units 211-A and 211-B Volatile Organic Compound Sources for the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, December 2013
DOE/LX/07-1268&D2/R2/A1	Addendum to the Remedial Design Work Plan for Solid Waste Management Units 1, 211-A, and 211-B Volatile Organic Compound Sources for the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Sampling and Analysis Plan, February 2015
DOE/LX/07-1288&D2/A1	Addendum to Final Characterization Report for Solid Waste Management Units 211-A and 211-B Volatile Organic Compound for the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, December 2015
PPPO-02-3287657-16	Final Characterization Notification for Solid Waste Management Unit 211-A and Solid Waste Management Unit 211-B at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, December 17, 2015

Table C.2.EM.PA.0040.A005.02.DR.02-2 SWMUs 211 A Remediation Milestones/Schedule	
Milestone	Date
30% Remedial Design Report for SWMU 211A	Consistent with the SMP and the approved CPB
60% Remedial Design Report for SWMU 211A	Consistent with the SMP and the approved CPB

Table C.2.EM.PA.0040.A005.02.DR.02-2 SWMUs 211 A Remediation Milestones/Schedule	
Milestone	Date
90% Remedial Design Report for SWMU 211A	Consistent with the SMP and the approved CPB
D1 Remedial Action Work Plan for SWMU 211A	Consistent with the SMP and the approved CPB
Field Start for SWMU 211A Remedial Action	Consistent with the SMP and the approved CPB
D1 Post Construction Report	Consistent with the SMP and the approved CPB
D1 Operation and Maintenance Plan	Consistent with the SMP and the approved CPB
Complete waste disposition for SWMU 211A Remedial Action	Consistent with the SMP and the approved CPB
D1 Remedial Action Completion Report(s) for SWMU 211A	Consistent with the SMP and the approved CPB

EM.PA.0040.A007.04.DR SWMU4 FEASIBILITY STUDY

EM.PA.0040.A007.04.DR.02 SWMU 4 Feasibility Study

The Contractor shall support DOE in finalizing and obtaining regulatory approval of the D2 Feasibility Study for SWMU 4. The Contractor shall also support meetings and discussions to resolve comments or dispute conditions.

Table C.2.EM.PA.0040.A007.04.DR.02-1 SWMU 4 Feasibility Study Milestones/Schedule	
Milestone	Date
Submittal of the D2 Feasibility Study for SWMU 4 to the regulatory agencies	1/30/2018

EM.PA.0040.A005.10.DR C-400 COMPLEX OPERABLE UNIT REMEDIATION

EM.PA.0040.A005.10.DR.01 C-400 Complex Operable Unit Remediation

The C-400 Cleaning Building has historically been found to be a major source of TCE in the Northwest and Northeast Plumes. TCE and other related Volatile Organic Compounds (VOC) as well as ⁹⁹Tc have been found in the vadose zone from the surface down to the water table. Now that the facility has been returned to DOE, all of the contaminants of concern (COCs) in the soils surrounding and underneath the buildings and groundwater need to be determined. The C-400 Complex is being defined as the area bounded by the streets Virginia Avenue to the north, 11th Street to the east, 10th Street to the west, and Tennessee Avenue to the south.

The Contractor shall develop and obtain regulatory approval of a Remedial Action Completion Report for the 2005 C-400 Interim Remedial Action Record of Decision to document the results of previous interim remedial actions at C-400 (Phase I and Phase

IIa). DOE will provide comments on the draft report prepared by the previous contractor by 11/20/17.

The Contractor shall complete a full investigation of the C-400 Complex, including any and all regulator documents and sampling, to determine the nature and extent of all COCs in the groundwater, soils surrounding the buildings, and beneath the buildings. The investigation includes all slabs, soils, and groundwater within the area specified above (C-400 Complex).

The Contractor shall develop and submit to DOE and the regulatory agencies all applicable CERCLA documentation, including any sampling and analysis plans necessary to complete the investigation and reach a final remediation Record of Decision (ROD) addressing all COCs instead of an Interim ROD addressing only the TCE contamination. The Contractor shall work to gain DOE and regulatory agency approval of the CERCLA documentation, including the results of the investigation. The Contractor shall comply with the FFA and other applicable regulatory agreements/requirements.

The Contractor shall develop and submit to DOE and the regulatory agencies all applicable CERCLA documentation (e.g., Remedial Investigation/Feasibility Study [RI/FS] Work Plan, Proposed Plan, Records of Decision, Design Packages, Remedial Design Work Plans, Remedial Action Work Plans, Remedial Action Reports, etc.) necessary to complete remediation within the C-400 Complex, which would include any contamination that extends beneath the C-400 Cleaning Building. The Contractor shall work to gain DOE and regulatory agency approval of the applicable CERCLA documentation. The Contractor shall comply with the FFA and other applicable regulatory agreements/requirements.

Upon completion of the remediation, the Contractor shall prepare the Remedial Action Completion Report (RACR). The Contractor shall comply with the FFA and other applicable regulatory agreements/requirements.

Table C.2.EM.PA.0040.A005.10.DR.01-1 C-400 COMPLEX OPERABLE UNIT REMEDIATION Requirements Documents	
Document Number	Title
N/A	Memorandum of Agreement on the C-400 Complex under the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, dated August 7, 2017, (C-400 Complex MOA)

Table C.2.EM.PA.0040.A005.10.DR.01-2 C-400 COMPLEX OPERABLE UNIT REMEDIATION Milestones/Schedule	
Milestone	Date
D1 C-400 Interim Remedial Action Completion Report to DOE for Review	12/20/17
D1 C-400 Interim Remedial Action Completion Report to Regulators	2/7/18 Certification copy at least 5 working days ahead of due date
D1 C-400 Complex RI/FS Scoping Document per the FFA to DOE for Review	1/15/18
D1 C-400 Complex RI/FS Scoping Document per the FFA to Regulators	2/15/18
D1 C-400 Complex RI/FS Work Plan to DOE for Review	9/15/18
D1 C-400 Complex RI/FS Work Plan to Regulator	11/28/18 Certification copy at least 5 working days ahead of due date
Begin field RI activities	11/13/19 Consistent with the FY 2018 / FY 2019 FFA SMP and the Memorandum of Agreement on the C-400 Complex under the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, dated August 7, 2017, (C-400 Complex MOA).
D1 C-400 Complex RI/FS to DOE for submittal to Regulators	8/08/2022 As established in the Contractor's CPB and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP – currently projected as 10/7/2022 for DOE submittal to EPA/KY.
D1 C-400 Complex Proposed Plan to Regulators	4/06/2023 Certification copy at least 5 working days ahead of due date. As established in the Contractor's CPB and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP – currently projected as 4/06/2023.
D1 C-400 Complex Record of Decision to Regulators	As established in the Contractor's CPB and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP – currently projected as 1 st Quarter FY 2024.
D1 C-400 Complex Remedial Design Work Plan to Regulators	As established in the Contractor's CPB and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP – currently projected as 1 st Quarter FY 2024.
D1 C-400 Complex Remedial Design Report (90%) to Regulators	As established in the Contractor's CPB and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP – currently projected as 1 st Quarter FY 2025.

Table C.2.EM.PA.0040.A005.10.DR.01-2 C-400 COMPLEX OPERABLE UNIT REMEDIATION Milestones/Schedule	
Milestone	Date
D1 C-400 Complex Remedial Action Work Plan to Regulators	As established in the Contractor's CPB and approved by DOE. Dates must be within the Contractor's period of performance.
C-400 Complex Remedial Action Field Start	As established in the Contractor's CPB and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP – currently projected as 2 nd Quarter FY 2025.
Complete the remediation of COC contamination throughout the C-400 Complex including contamination that extends beneath the C-400 Cleaning Building	As established in the Contractor's CPB and approved by DOE. Dates must be consistent with the latest approved version of the FFA SMP
D1 RACR	As established in the Contractor's CPB and approved by DOE. Dates must be within the Contractor's period of performance.

EM.PA.0040.A014.01 C-400 COMPLEX DEMOLITION

EM.PA.0040.A014.01 C-400 Complex Demolition (C-400 Building Only)

Demolition

The Contractor shall complete pre-demolition activities for the C-400 Building. This includes, but is not limited to, removal and proper disposition of interior transite panels, asbestos removal, receiving booth removal, conditioning stand housing removal, and exterior surface feature removal interfering with a planned remedial investigation sample location. The contractor shall ensure all waste generated for these activities are properly packaged and dispositioned either onsite or offsite as appropriate.

The Contractor shall perform subcontractor close-out activities and include collected cost incurred for project planning (work package development, storm water management plan development, waste volume estimates, etc.)

The U.S. Department of Energy (DOE) has entered into a Memorandum of Agreement (MOA) on the C-400 Complex under the FFA for the PGDP with regulatory agencies that includes enforceable milestones for performance of a remedial investigation. The Contractor shall plan and manage pre-demolition activities such that the remedial investigation milestone dates are achieved.

The contractor will at minimum report scope, cost, schedule, and risk associated with this activity under work breakdown structure (WBS) elements as defined below:

Table C.2.EM.PA.0040.A014.01-1 C-400 COMPLEX DEMOLITION Work Breakdown Structure	
WBS Element	Element Title
EM.PA.0040.A014.01.DR.12	C-400 Demolition

Table C.2.EM.PA.0040.A014.01-2 C-400 COMPLEX DEMOLITION Milestones/Schedule	
Milestone	Date
Complete the pre-demolition activities of the C-400 Building, including all waste disposal	February 2020

EM.PA.0040.A014.01.DR.04, 06, 08, 10

CERCLA Documentation

Demolition of C-400 is to be performed as a non-time-critical removal action (NTCRA) under CERCLA. The DOE has entered into a Memorandum of Agreement (MOA) on the C-400 Complex under the Federal Facility Agreement (FFA) for the Paducah Gaseous Diffusion Plant (PGDP) with regulatory agencies, which includes enforceable milestones for performance of this scope of work. The Contractor shall plan and manage the work such that all milestone dates are achieved. All sections of the FFA are applicable to this work scope and must be considered.

Under this task order the Contractor shall be responsible for the development of CERCLA documentation required in accordance with the FFA and the C-400 Complex MOA. DOE will provide the Contractor with an initial draft of the D1 Removal Notification developed by the previous contractor along with DOE comments on the D1 no later than November 30, 2017. The Contractor is expected to finalize the Removal Notification and all other CERCLA documents in support of the NTCRA excluding the Removal Action Report.

The Contractor shall plan for and schedule regular planning and comment resolution meetings with DOE personnel to facilitate decision making and streamline the document preparation and approval process.

The Contractor will at minimum report scope, cost, schedule, and risk associated with this task order under work breakdown structure (WBS) elements as defined below:

Table C.2.EM.PA.0040.A014.01-1 C-400 Complex Demolition – CERCLA Documentation Work Breakdown Structure	
WBS Element	Element Title
EM.PA.0040.A014.01.DR.04	C-400 Removal Notification
EM.PA.0040.A014.01.DR.06	Engineering Evaluation/Cost Analysis
EM.PA.0040.A014.01.DR.08	Action Memorandum
EM.PA.0040.A014.01.DR.10	Removal Action Work Plan

Table C.2.EM.PA.0040.A014.01-2 C-400 Complex Demolition – CERCLA Documentation Milestones/Schedule	
Milestone	Date
D1 Removal Notification for the C-400 Cleaning Building NTCRA to DOE for Review	1/15/18
D1 Removal Notification for the C-400 Cleaning Building NTCRA to Regulators	3/1/18 Certification copy at least 5 working days ahead of due date.
D1 Engineering Evaluation/Cost Analysis for the C-400 Cleaning Building NTCRA to DOE for Review	3/5/18
D1 Engineering Evaluation/Cost Analysis for the C-400 Cleaning Building NTCRA to Regulators	5/2/18 Certification copy at least 5 working days ahead of due date.
D1 Action Memorandum for the C-400 Cleaning Building NTCRA to DOE for Review	6/1/18
D1 Action Memorandum for the C-400 Cleaning Building NTCRA to Regulators	8/14/18 Certification copy at least 5 working days ahead of due date.
D1 Removal Action Work Plan for the C-400 Cleaning Building NTCRA to DOE for Review	6/15/18
D1 Removal Action Work Plan for the C-400 Cleaning Building NTCRA to Regulators	8/17/18 Certification copy at least 5 working days ahead of due date.

Table C.2.EM.PA.0040.A014.01-3 C-400 Complex Demolition – CERCLA Documentation Reference Documentation	
Document Number	Title
N/A	Memorandum of Agreement on the C-400 Complex under the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant
DOE/LX/07-2420&D1	DRAFT Removal Notification for Demolition of the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

EM.PA.0040.A008.41.DR SURVEILLANCE AND MAINTENANCE

EM.PA.0040.A008.41.DR.01 Surveillance and Maintenance of Facilities

The Contractor shall perform routine surveillance and maintenance of all DOE-owned facilities assigned to the Paducah D&R Contractor in FIMS and identified in Section J, Attachment J-18. The Contractor shall perform all S&M activities associated with these facilities through the end of the Contract. While not an all-inclusive list, examples of S&M activities are: system monitoring, routine inspections, calibrations, certifications, corrective maintenance, facility repairs necessary to maintain the integrity of the facility, combustible removal, cleanup of spills/leaks, control of loose contamination and airborne particles, isolation of utilities, etc.

Additionally, the Contractor shall minimize the size/footprint of occupied facilities to the greatest extent practical. The goal of this action is to reduce utility and S&M costs and maximize productivity of personnel. The Contractor shall submit annually a Site Facility Occupational Status Report that documents which facilities are occupied and the plans associated with the unoccupied. The report shall include a plan and schedule to reduce the number of occupied facilities by 20% over the life of the contract while meeting all PWS requirements and tasks. A facility shall be considered occupied, consistent with DOE Orders and the Life Safety Code (NFPA-101), if the facility is occupied by personnel on a regular basis (more than just making rounds or walk-throughs of the facility). If operations are performed in a facility, it shall be considered occupied. The Contractor shall implement that plan to the extent practical.

The Contractor shall also, to the extent practicable, remove and disposition permanently unoccupied temporary facilities (e.g. trailers) or small structures to preclude degradation that would result in increased cost to DOE. DOE approval is not required prior to implementing such actions but DOE notification is required since GFSI services will be impacted. However, CERCLA and other applicable regulatory requirements processes shall be adhered to. Additionally, the Contractor shall maximize the transfer to PACRO for excessing any such facilities.

The Contractor shall develop, document, and maintain an S&M Program Plan as appropriate for all facilities that are within the Contractor's responsibility.

The S&M activities shall be tailored during the facility life-cycle in accordance with DOE O 430.1C, Real Property and Asset Management, and 10 CFR 851, Worker Safety and Health Program. Other areas that may require S&M include closed areas, remediated areas, capped areas (e.g., landfill), open areas, etc.

The Contractor shall provide preventive and corrective maintenance using a graded approach on buildings, trailers and Other Structures and Facilities (OSF) assigned to the Contractor in FIMS and identified in Section J, Attachment J-18. A graded approach is defined as the process of ensuring that actions used to comply with a

requirement are commensurate with:

- a. the relative importance of safety and safeguards and security,
- b. the magnitude of any hazard(s) involved,
- c. the life cycle stage of the facility,
- d. the programmatic mission of the facility,
- e. the particular characteristics of the facility,
- f. the relative importance of the radiological and non-radiological hazards, and
- g. any other relevant factor.

The Contractor shall ensure that an electronic S&M tracking/work processing software package is used to integrate historical S&M data with S&M work requests for subsequent scheduling. The Contractor shall accept, utilize, and optimize the existing electronic system. Further, the Contractor shall ensure that no systems, equipment, or items related to safety (including defense in depth) are degraded for more than 30 days without written DOE consent. The Contractor shall ensure that long-lead or critical spares are in on-site inventory where practical. The Contractor shall ensure mitigating actions are put in place within 24 hours of identifying a degraded system, equipment, or item related to safety.

The Contractor shall review the Authorization Basis, the Technical Safety Requirements (TSR), and the defense-in-depth safety related programs and shall present to DOE within 45 days after Transition completion, a comprehensive, itemized list of systems, equipment, and items related to safety (including those items credited for defense-in-depth or other safety related systems). The Contractor shall implement and adhere to the guidance provided in DOE memoranda *Deferred Maintenance Report Recommendations and Implementation Plan, June 25, 2015* and *Deferred Maintenance PPPO-02-2742794-15, March 30, 2015*. The Contractor shall actively work with DOE safety personnel and reach agreement on the list within 60 days after Transition completion. As such, there shall be no deferred maintenance of safety related systems, equipment, or items greater than 30 days without express written consent from DOE.

The Contractor shall perform all S&M activities including, but not limited to, the following:

- a. Minimize and reduce the occupation of facilities to the maximum extent possible;
- b. Maintain the operability of critical equipment such as the criticality accident alarm systems (CAAS), monitor radiological conditions, and check and maintain safety-related items. As facility conditions change, the Contractor shall reduce or eliminate critical equipment or use of critical systems that are no longer required for compliance with DOE requirements.
- c. Perform minimally required facility inspections including equipment and/or structure;

- d. Conduct preventive, predictive, and corrective maintenance actions only necessary to support near-term Contractor or site tenants/contractors operations. As operational activities change, the Contractor shall annually assess if continued preventative, predictive, and corrective maintenance is still warranted.

Table C.2.EM.PA.0040.A008.41.DR.01-2 Surveillance and Maintenance of Facilities Milestones/Schedule	
Milestone	Date
Develop and Submit a S&M Program Plan for facilities within the Contractors responsibility	NLT 30 days after transition is complete
Annual Site Facility Occupational Status Report	90 days after conclusion of transition and annually thereafter
Comprehensive list of systems, equipment, and items related to safety	Within 45 days after transition completion and reach agreement with DOE safety personnel within 60 days after transition completion.
Ensure maintenance of safety related systems, equipment, or items is completed	Within 30 calendar days after discovery for each individual item, unless DOE provides written consent to defer.
Formally report any fire impairments that exceed 90 days from discovery	Within 7 calendar days of the exceedance
Formally report any fire impairments that exceed 180 days from discovery, including compensatory measures and corrective actions with a completion schedule.	Within 7 calendar days of the exceedance
Provide tracking and trending information for the minimum set of maintenance related metrics per IV.D.4 of the "Summary of Environmental Management Site Extent of Condition Review of Deferred Maintenance" (December 2014)	Within 30 calendar days after the close of the calendar year quarter
Periodic monitoring report of application set of safety related systems and tracking of operable status.	Within 30 calendar days after the close of the calendar year quarter

EM.PA.0040.A008.41.DR.01. Remove Contents and Fill Solid Waste Management Unit 513 Sump

The Contractor shall complete disposition of the contents (liquid and sludge) in Solid Waste Management Unit (SWMU) 513 and fill the sump with flowable fill to prevent future rainfall infiltration. The work shall be performed in accordance with PPPO-02-100008409-21, *Path Forward Solid Waste Management Unit (SWMU) 513 Sump*, dated January 8, 2021.

The Contractor shall submit a revised SWMU Assessment Report for SWMU 513 providing details of the waste removal and status upon completion of the project.

The contractor shall complete all coordination for regulatory notifications and waste characterization and disposition.

Table C.2.EM.PA.0040.A008.41.DR.01 Removal of Contents and Fill SWMU 513	
Milestone	Date
Complete waste removal and fill with flowable fill for SWMU 513	July 10, 2021
Complete offsite waste disposition for all waste associated with the SWMU 513 project	August 10, 2021
Submit revised SWMU Assessment Report for SWMU 513	August 30, 2021

EM.PA.0040.A008.41.DR.01. Sample, Remove Contents, Fill, and Cap Solid Waste Management Unit 20 Lagoon

- The Contractor shall collect a water sample (and duplicate) from the lagoon prior to removing contents. The Contractor shall also collect two core samples of the soils at the bottom of the lagoon. The core samples may also be used to determine if there is an asphalt layer on the bottom and to better estimate the amount of sludge/sediment that will be encountered when removing the contents. Samples should be analyzed, at least, for polychlorinated biphenyls, metals, volatiles, semivolatiles, and radionuclides.
- The Contractor shall provide 90% and Certified for Construction design packages for U.S. Department of Energy (DOE) approval for lagoon filling and capping. The Contractor also shall provide As-Built Drawings to DOE upon completion. All drawings shall be filed in appropriate Paducah Site records and engineering systems.
- Upon DOE review of the data, the Contractor shall complete disposition of the contents (liquid and sludge) from Solid Waste Management Unit (SWMU) 20.
- The Contractor shall install a liner and fill the sump with flowable fill to prevent future rainfall infiltration. Additionally, a concrete cap shall be installed over the unit. This work shall be conducted with approved drawings.
- The Contractor shall submit the appropriate SWMU Notifications for the work, communicate with DOE and the agencies as to the status of the data, content removal, and installation of the liner, fill, and cap. The Contractor shall submit a revised SWMU Assessment Report for SWMU 20 providing details of the waste removal and status upon complete of the project.

- The Contractor shall disposition all waste at an appropriate offsite disposal facility.

The contractor shall complete all coordination for regulatory notifications and waste characterization and disposition.

Table C.2.EM.PA.0040.A008.41.DR.01 Removal of Contents and Fill SWMU 20	
Milestone	Date
Complete sampling of SWMU 20	June 7, 2021
Complete removal of contents, installation of liner, fill, and cap for SWMU 20	August 31, 2021
Complete Waste Disposition for project	September 28, 2021
Submit revised Draft SWMU Assessment Report for SWMU 20 to DOE	September 30, 2021

EM.PA.0040.A008.41.DR.01.02.06, C-310 Dry Hybrid Installation

In accordance with the requirements of an approved TFHA, the Contractor will perform the necessary modifications (i.e., transition to dry hybrid system on the ground floor and use of hose reel-type systems on the cell floor) to the HPFW systems in the C-310 process facility (i.e., three-riser systems). These modifications will allow for the elimination of auxiliary heating for the sprinkler systems in these facilities and reduce S&M costs. The Contractor will also ensure necessary documents (e.g., procedures, drawings, etc.) including revisions to safety basis documents are completed, as well as a reliable alternative water supply made available to charge the sprinkler systems. The following tasks are to be completed:

- Complete design documents for 90% for the hose reel system as well as CFC documents for the C-310 facility.
- Complete the necessary modifications (e.g., dry hybrid and/or hose reel systems), including placing the modified systems in service and completing the associated paperwork and safety basis changes for the C-310 facilities, which will include the following:
 - Evacuate System 1 feeding C-310
 - Remove C-310-A from System 1 when the cut and cap is performed just above the cell floor

Due to the inaccessibility of sprinkler heads in the C-310-A facility, repair to sprinkler heads will not be performed in C-310-A, thus causing System 1 evacuation to be performed after the cut and cap of System 1.

- Evacuate Systems 2 and 3.
- Make dry hybrid modifications to the three-riser systems.
- Repair and/or replace any sprinkler heads as needed in the C-310 facility to allow evacuations and operability of systems.
- Cut and cap HPFW riser systems from cell floor and install hose carts on cell floor per direction of the fire department for location.

EM.PA.0040.A008.41.DR.02 Facility Roofs

The Contractor shall ensure that all Category 2 nuclear facility roofs do not leak. If a leak is discovered the Contractor shall take immediate mitigation action(s) and pursue full repair actions to ensure all temporary repair actions are replaced with permanent repair(s) within 60 days of leak identification. This includes any and all structural aspects of the roofs. Further, the Contractor shall ensure that roof leaks do not impact operational activities (defined as taking any type of action that adjusts the operation from pre-leak condition/configuration, including modifying operator PPE)

In non-Category 2 facilities the Contractor shall permanently repair leaks within 90 days of identification. Permanent repairs are defined as returning the roof to its original pre-leak configuration or equivalent. The Contractor shall submit a non-Category 2 facility roof list to DOE 45 days after Transition is complete. This list will form the basis for the non-Category 2 facilities upon which the Contractor will perform repairs within 90 days and that will be part of the annual non-Category 2 facilities assessment. Further, the Contractor shall ensure that roof leaks do no impact operational activities (defined as taking any type of action that adjusts the operation from pre-leak condition/configuration, including modifying operator PPE).

The Contractor shall assess the roof integrity of the Category 2 nuclear facilities and the facilities on the DOE approved non-Category 2 list within 30 days after DOE approval of the list for the non-Category 2 facilities and annually thereafter. The Contractor shall provide DOE a report of the integrity of facility roofs within 30 days of completing its assessment, including the costs and schedule for repair of the roofs by facility. (Note: The cost for roof repair is informational; the Contractor is responsible for funding those repairs.) All repairs shall be completed in a compliant manner and shall prevent water leakage.

Further, the roofs for C-310, C-310-A, C-331, C-333, C-335, and C-337 were replaced with a fire resistant structural membrane system. These roofs shall be maintained in a sound condition that does not invalidate the warranty of the roofs. In the event leaks are identified, the Contractor shall work with the installer to provide notification and resolve warranted deficiencies within the required warranty time frame.

Non-Category 2 facilities that are: 1) shutdown, 2) do not have routine personnel access, 3) have utilities isolated, and 4) do not have authorization basis requirements associated with facility safety should be evaluated on a graded approach. This exemption does not apply to facilities with structural membrane systems (C-310, C-310-A, C-331, C-333, C-335, and C-337). The roof structural membrane must be maintained in accordance with warranty requirements.

Table C.2.EM.PA.0040.A008.41.DR.02-1 Facility Roofs Reference	
Document Number	Title
FPAD-16-1257	2015 Annual Process Facilities Roof Structural Integrity Assessment
FPAD-16-1430	Performance Based Incentive No 3c C-335 and C-331 Roof Replacement and Warranties

Table C.2.EM.PA.0040.A008.41.DR.02-2 Facility Roofs Milestones/Schedule	
Milestone	Date
Submit Roof Integrity Assessment	60 days after DOE approval of Facilities List and annually thereafter
Submit a List of Non-Category 2 Facilities	NLT 45 days after Transition is complete

EM.PA.0040.A008.42.DR UTILITIES OPERATIONS

EM.PA.0040.A008.42.DR.01 Utility Operations

The Contractor shall operate and maintain utilities and ensure utility services are provided to site tenants for the utilities described within this section. The Contractor shall work with the other site tenants/contractors to ensure that decisions to provide these services are based on overall cost effectiveness. The Contractor shall evaluate the existing Nitrogen system to determine if there are any modifications required to optimize/minimize the nitrogen usage at PGDP. The Contractor shall provide DOE with the analysis of the system along with detailed cost and schedule for any recommendations. Natural gas is provided from off-site via two main utility lines; one to the north that services PGDP facilities and one to the south for DUF₆ facilities.

Additionally, the tracking and metering of utilities in Federal Buildings is maintained by Section 103 of the Energy Policy Act of 2005. Since DOE will be performing clean-up operations in portions of the facility for the foreseeable future, the Contractor shall install and track meters for the usage of power, natural gas, water, and other fuels, when repairs are made to the utility service for a building/group of buildings, such that installation of the meters is practicable to DOE annually (unless the facility(ies) is/are actively undergoing or, has completed deactivation).

Table C.2.EM.PA.0040.A008.42.DR.01-1 Utility Operations Milestones/Schedule

Milestone	Date
List of facility meters added or deleted	12 months after transition is complete and annually thereafter
Nitrogen System Evaluation Report	90 days after transition

EM.PA.0040.A008.42.DR.02 Steam, Chilled Water, Compressed Air, & Waste Heat Systems

The Contractor shall operate and maintain the existing five (5) package boilers units (nominal 20,000 pounds/hour each) to meet the site demands, including deposit/hold-up removal, of up to 40,000 pounds/hour. A connection for a sixth package boiler is available should the Contractor determine that additional steam capacity is required to support the Contractor's operational needs. The Contractor will be responsible for the costs of natural gas and/or fuel oil for boilers. The Contractor shall remove the package boilers as demand is reduced site-wide.

The Contractor shall ensure that the facilities currently using steam for heating have a replacement heat supply installed if the facility is going to continue to be occupied/operated. The Contractor shall ensure that the ductwork needed to distribute the heating/cooling is properly configured and sized as part of the replacement heating/cooling. The Contractor shall develop and submit to DOE the plan and schedule for replacing the heat source to facilities that are going to remain operational.

Heat and chilled water will still be required for certain facilities that currently utilize the recirculating heat systems (formerly the Waste Heat System tied to the Recirculating Cooling Water System). The Contractor shall operate and maintain these systems until shutdown of end user facilities or until end user facilities that will continue to be occupied/operated have replacement heating/cooling installed. The following facilities use chilled water: C-100; C-101; C-102; C-200; C-205; C-300; C-600; C-709; C-710; and C-720. The following facilities use the recirculating heat system to provide heat (including estimated percentage of total load used): C-100 (8%); C-200 (2%); C-400 (40%); C-710 (6%); and C-720 (44%) buildings.

The Contractor shall ensure that those facilities using chilled water or the recirculating heat system have replacement heating/cooling installed if the facility is going to continue to be occupied/operated. The Contractor shall ensure that the ductwork needed to distribute the heating/cooling is properly configured and sized as part of the replacement heating/cooling. The Contractor shall develop and submit to DOE the plan and schedule for replacing the heating/cooling service to facilities that are going to remain operational. Upon completion of replacing the heating/cooling services to those facilities, the Contractor shall shut-down the plant chiller (located in C-602) and the heat exchanger east of C-600. The Contractor shall work with DOE and PACRO to excess the heat exchanger.

There are several air compressors of varying age, reliability, and capacity that provide dry compressed air to a plant-wide dry air distribution system. The Contractor shall

operate and maintain, as necessary, dry compressed air distribution system and associated air compressors until the Contractor can modify the system to facilitate shutdown and discontinue use of the plant-wide dry air distribution system. The Contractor shall utilize local air compressors or air compressors within the building to provide any required dry compressed air. No air compressors shall use once-through cooling from the plant/sanitary water system. The air compressors in C-620 and in C-602 shall be shut down.

Table C.2.EM.PA.0040.A008.42.DR.02-2	
Steam, Chilled Water, Compressed Air, and Waste Heat Systems Milestones/Schedule	
Milestone	Date
Heating/Cooling Service Replacement Plans and Schedule	12 months after Transition is complete
Shut down of the Plant Compressed Air Distribution System and air compressors in C-620 and C-602	24 months after Transition is complete
Discontinue use of the Plant Dry Air /Compressed Air System and any air compressors that use once through cooling from plant/sanitary water	24 months after Transition is complete
Complete Installation of the Replacement Heating/Cooling Service for the Chiller and Recirculating Heat System and Shutdown the Chiller and Recirculating Heat System.	30 months after Transition is complete
Complete Installation of Replacement Heat Service for Steam	42 months after Transition is complete

EM.PA.0040.A008.42.DR.03 Water Systems

The Contractor shall ensure the operation and maintenance of the permitted C-611 Water Treatment Facilities and provide potable and non-potable (process) water to the site's contractors/tenants. This includes maintenance of associated raw water lines, distribution lines to the individual site facilities, water towers, pump, housings, etc. The raw water treatment process is based on conventional water treatment techniques which include softening, coagulation, flocculation, sedimentation, and chlorination. Raw water is obtained from the Ohio River through an intake station and pumped through water-softening units at the facility.

The Contractor shall continue to operate the existing on-site water treatment facilities and raw water supply lines until a commercial/community water supplier connects and begins to provide water to the entire site.

The Contractor shall provide support to DOE to obtain an off-site potable (sanitary) water supply (one million gallons per day). The process to acquire potable water from one of the local water districts has been initiated. The Contractor shall complete this effort. This support shall include the following:

1. Support DOE on working with the Stakeholders as needed to form agreements with an Off-Site Service Provider to provide the PGDP with long term sanitary water service.
2. Support the design by an Off-Site service provider. This includes providing the Off-Site Service Provider technical interface information, data, specifications, and/or drawings as requested.
3. The contractor shall support DOE in pursuing alternative financial arrangements with the Off-Site Service Provider for the design and construction of the water line and associated equipment and tie-ins to provide sanitary water to PGDP.
4. Review design packages and specifications as requested by the Off-Site Service Provider.
5. Support interface, coordination, and technical support (radiological surveys, line locations, and penetration permits) for the Off-Site Service Provider construction on site as necessary.
6. Coordination of tie-in of the Off-Site Service Provider's potable (sanitary) water line to the new Contractor installed storage tank(s).
7. Status Meetings and Briefing materials and meeting notes on an ad-hoc basis as requested by DOE

The Contractor shall design and construct a water storage tank(s) of not less than 500,000 gallons for sanitary water and the installation of an underground line from the new tank(s) to the site potable (sanitary) water system. The new configuration would initially supply the DUF₆ Plant Area and the C-103 DOE Building with sanitary water and fire protection services. The storage tank(s) are to include all piping, pumps, valves, controls, and connections required to allow tie-in of a future water supply line from an off-site supplier as described above.

The Contractor shall complete all actions, including design, procurement, and construction necessary to place the in-coming water lines from the local water district into service, while minimizing the operation and maintenance of existing on-site water treatment facilities and systems. The Contractor shall develop and submit to DOE a plan and detailed schedule that identifies the facilities/systems to be shut down and those required to continue to operate after connection to the local water district. The Contractor shall shut down, de-energize, isolate, and drain liquids, from all water treatment facilities/systems (including ancillary systems) no longer required to be operated. The Contractor shall ensure sufficient water capacity remains on-site in support of fire suppression systems and firefighting response actions.

The Contractor shall design, construct, and make modifications to and/or replace the appropriate sections of the on-site potable water distribution system as needed. As part of the changes, the Contractor shall ensure that the distribution system lines are right sized to have sufficient flow in the lines to maintain a sanitary condition (e.g., maintain residual chlorine content with minimum flushing of lines) of the water service. The Contractor shall also ensure that any existing lines used for distribution of the potable water shall be in good condition and have all leaks eliminated. Finally, the Contractor

shall air gap (permanently isolate) parts of the existing distribution system/area that do not require continued potable water.

Table C.2.EM.PA.0040.A008.42.DR.03-1 Water Systems Milestones/Schedule	
Milestone	Date
Water Facility Shutdown Plan	12 months after Transition is complete
Provide a Plan for Optimization of the onsite Sanitary Water Distribution system	24 months after Transition is complete
Complete transition of the Site's sanitary/plant water systems to a local water district.	24 months after Transition is complete
Complete the shutdown, de-energization, isolation, and draining of liquids, of the unnecessary facilities/systems (including ancillary/support systems)	30 months after Transition is complete

**Note: Transfer of facilities may involve multiple steps, including lease prior to completing all necessary facility transfer requirements.*

EM.PA.0040.A008.42.DR.04 Electrical Power Distribution

In 2015, the site completed the reconfiguration of the site's 14kV power distribution system allowing the shut-down of the low-side of the C-533, C-535, and C-537 switchyards. All power currently is distributed out of the C-531 switchyard.

The Contractor shall:

- ensure power is provided to all on-site tenants/contractors (does not include commercial power provided to remote areas of the site that are managed by the Infrastructure Contractor);
- operate and maintain the high side of the site's four switchyards until TVA, Electric Energy Inc. (EEI), or Kentucky Utilities (KU) have migrated the 161kV lines away from the switchyards; and
- project the power needs for all site operations (including infrastructure and DUF₆ needs) for a five-year period and update that projection quarterly.

EM.PA.0040.A008.42.DR.04.01 Electrical Power Operations and Deactivation of Switchyards

The Contractor shall maintain and operate the 14kV Power Distribution systems at the site. The Contractor shall operate and maintain the high side of the site's four switchyards in accordance with the requirements established by the regional reliability coordinator (TVA), until TVA, EEI, or KU have migrated the 161kV lines away from the switchyards. The reconfiguration of the 161kV lines away from the C-533, C-535, and C-537 switchyards are expected to be completed by December 31, 2017. Once TVA,

EEI, and KU have completed the migration of the 161kV power lines coming into the site's four switchyards, the Contractor shall shutdown and isolate the high side of the switchyards and eliminate power (including any ancillary or station power) (except as required to support operation of the water removal systems), and other utility services to the switchyards and associated ancillary facilities. Contractor shall make modifications to ancillary/support facilities as necessary to ensure the basement/below grade areas do not accumulate water. All oils shall be drained and compliantly dispositioned and fire suppression systems shall be deactivated. Upon completion of this activity all C-500 series facilities shall be shutdown, de-energized (except as required to support operation of the water removal systems), drained of liquids, and unoccupied (except as required to maintain the water removal systems).

A new switchyard will be constructed by others including the installation of 14kV cables between the new switchyard and the existing 14kV distribution systems. Final ties will be made by others with an expected completion date of December 2019. The Contractor shall coordinate and interface with the entities performing these tasks to ensure site accessibility, impacts to the electrical system are minimized, and the new system is commissioned and operable. The Contractor will operate the new 14kV systems once placed into service. The new switchyard will be operated by others.

The Contractor shall have the ability to collect the fully burdened costs for maintaining and operating the high-side of each switchyard by month starting in FY18. The costs shall include an apportionment of supporting utilities (e.g., power, steam, fire suppression, water) and program management cost in addition to overhead, fringe, and fee. DOE may recover costs from the electrical utilities.

The Contractor is not responsible for purchasing power (DOE purchases power).

Table C.2.EM.PA.0040.A008.42.DR.04-1 Electric Power Distribution Milestones/Schedule	
Milestone	Date
Complete shut-down, isolation, de-energization, and draining of the C-533, C-537, and C-535 Switchyards and associated ancillary/support facilities	6 months after EEI and TVA complete re-configuration of the 161 kV lines to migrate away from C-533, C-537, and C-535
Complete shut-down, isolation, de-energization, and draining of the C-531 switchyard and associated ancillary/support facilities	6 months after completion of the tie-ins of the new 14kV cables to the existing 14kV distribution system and to the new switchyard equipment.
Quarterly Site Power Projections	The 15 th of January, April, July, and October for each preceding quarter

Table C.2.EM.PA.0040.A008.42.DR.04-2 Electric Power Distribution Reference Documents	
Document Number	Document Title

N/A	14kV Design Package
N/A	Power Contracts

EM.PA.0040.A008.42.DR.04.01.03 Develop Switchyard Equipment Catalogs

The Contractor shall develop two catalogs, one each for C-535 (inclusive of C-535-1, C-535-2, and C-541 facilities), and C-537 (inclusive C-537-1 and C-537-2 facilities) switchyards. The catalogs will be used for recycling large electrical equipment and scrap metal to be dismantled and removed from switchyards. At a minimum, the catalogs shall include the following major components/materials: 14 kV air circuit breakers (ACB), switchgear, synchronous condensers, transformers (various sizes), oil circuit breakers (OCB), oil storage tanks, reactors, and approximate amount of scrap metal sorted by type (e.g., copper, aluminum, steel, etc.) and weight. Weights and/or volumes for structural steel, aluminum, or other low value metals can be a Rough Order Magnitude range. For copper, a minimum weight and/or volume shall be provided. Small and miscellaneous items of low value do not need to be included in the catalog. Scrap metal sorted by type will be limited to materials other than those installed in the major components. The C-535 catalog shall also include the transformer located at the C-410 site (FP-8). The catalogs will not include components or materials that would require disturbing soils to catalog.

For each item listed, the catalog shall provide, if readily available, the following information: pictures of the equipment and equipment data plates, description (e.g., manufacturer, type, size, etc.), serial numbers, quantity, weight for large components, and current location. Like components can be represented by the one photo of the equipment and one photo of the associated data plate. The Contractor will provide original cost or estimated original cost. The Contractor will include notes in the catalogs with information such as known and/or potential contaminants present in specific components, and “oil drained, remaining quantity X”, and other information the Contractor thinks could benefit the recycle subcontractor and which is readily available. The Contractor should schedule the work in a manner to ensure the final document is acceptable as submitted.

Table C.2.EM.PA.0040.A008.42.DR.04.01.03-01 Develop Switchyard Equipment Catalogs	
Milestone	Date
Letter providing a listing of all item types and quantities to be included in the catalog. Any changes to the listing must be approved by DOE.	10 days after NTE is issued.

Table C.2.EM.PA.0040.A008.42.DR.04.01.03-01 Develop Switchyard Equipment Catalogs	
Milestone	Date
Develop and submit final equipment catalogs for two switchyards (C-535 and C-537)	March 31, 2020

EM.PA.0040.A008.42.DR.04.01.06.01 Characterize C-535 Switchyard Equipment

The Contractor shall complete characterization of equipment in the C-535 switchyard (inclusive of C-535-1, C-535-2 and C-541 facilities). The characterization shall include, but is not limited to, the following constituents:

- Radiological characterization for free release or waste disposal
- Mercury locations, for example manometers, switches, etc.
- Sampling and characterization for components that will be released from the site for waste disposal and/or free release containing lead, asbestos containing material (ACM), polychlorinated biphenyls (PCBs), etc.

The characterization should be of sufficient detail to allow transfer of the equipment off-site for recycle to the Paducah Area Community Reuse Organization (PACRO) or dispositioned as waste (on-site and/or off-site).

Table C.2.EM.PA.0040.A008.42.DR.04.01.06-01 Characterize C-535 Switchyard Equipment	
Milestone	Date
Complete the characterization of equipment in the C-535 switchyard	May 4, 2020

EM.PA.0040.A008.42.DR.04.01.07.01 Characterize C-537 Switchyard Equipment

The Contractor shall complete characterization of equipment in the C-537 switchyard (inclusive of C-537-1, C-537-2). The characterization shall include, but is not limited to, the following constituents:

- Radiological characterization for free release or waste disposal
- Mercury locations, for example manometers, switches, etc.
- Sampling and characterization for components that will be released from the site for waste disposal and/or free release containing lead, ACM, PCBs, etc.

The characterization should be of sufficient detail to allow transfer of the equipment off-site for recycle to PACRO or dispositioned as waste (on-site and/or off-site).

Table C.2.EM.PA.0040.A008.42.DR.04.01.07-01 Characterize C-537 Switchyard Equipment	
Milestone	Date
Complete the characterization of equipment in the C-537 switchyard	May 29, 2020

EM.PA.0040.A008.42.DR.04.06 Partial Dismantlement of the C-537 Switchyard Including Two 161kV Tie Lines to C-535 Switchyard

The Contractor shall complete the dismantlement of specified equipment located in the C-537-2 Switchyard, and two 161kV tie lines connecting C-537 to C-535, allowing for the maximum recycle of this equipment and materials to Paducah Area Community Reuse Organization (PACRO). The specified equipment shall be removed by the Contractor and placed into the appropriate container and/or on mode of conveyance. PACRO shall be responsible for securing and certifying all loads for shipments of recyclable components/metals including securing vehicle/container lids, doors, and coverings and securing container/component to conveyance. Equipment to be removed shall include: overhead static wires; overhead 161kV aluminum cable steel reinforced (ACSR) conductors; 161kV bus work; 161kV disconnect switches; 14kV isolated phase bus ducts; 14kV static capacitors; and all support and suspension insulators and lightning arrestors. In addition, lubricating oil from all oil circuit breaker (OCB) air compressors shall be removed, properly containerized and dispositioned. Precautions should be taken to prevent the spillage of oil. Any oil spilled during draining shall be cleaned up and properly dispositioned. Metals (e.g., aluminum, steel, copper, etc.) shall be segregated for recycle during the removal and dismantlement process. The Contractor shall ensure removed hazardous materials (e.g., asbestos, lead, mercury, polychlorinated biphenyls [PCBs], etc.) and any radioactive contaminated material are properly dispositioned. Any components or section of components impacted by radiological issues shall be removed and segregated by the Contractor and properly dispositioned. The Contractor shall utilize information from the switchyard equipment catalog and characterization to aid in recycling and disposal decisions. All waste shall be properly dispositioned at an off-site disposal facility or at the C-746-U Landfill if the waste meets landfill waste acceptance criteria.

No work shall be performed that will impact the Solid Waste Management Units. No soil shall be disturbed.

Switchyard equipment shall be dismantled with precautions to prevent breakage of any glass or the porcelain insulators. Should any breakage of glass, insulators or lightning arrestors occur, with the exception of inside the waste container, the Contractor shall be responsible for the cleanup and placement of broken material in the proper container. As

a part of dismantlement activities, the Contractor shall take the necessary actions to prevent the introduction of rainwater and debris into the switch house, switch house basement, and any other openings. Once dismantlement is complete, the Contractor shall ensure permanent covers, caps, etc., are installed over all openings made as the result of equipment removal. Any cover installed where foot traffic could be possible, shall be of the appropriate strength to provide a safe walking surface. The Contractor shall ensure that the remaining switchyard components and support structures are left in a structurally sound condition. Any slip, trip or fall hazard created by component removal, such as a pipe stub or bolt sticking up in a walking area, a slight change in walking surface elevation, etc., shall be painted with high visibility paint. Power shall be maintained to the switch house basement for operation of sump pumps, lighting, and other necessary equipment. The Contractor shall take the necessary precautions to ensure infrastructure (roads, utilities, surrounding soils, etc.) are not damaged as a result of dismantlement of the equipment. Should repairs be required, the Contractor shall discuss with the U.S. Department of Energy (DOE) prior to the initiation of those repairs.

The Contractor shall plan for and schedule regular planning and comment resolution meetings with DOE personnel to facilitate decision making. The Contractor will, at a minimum, report scope, cost, schedule, and risk associated with this activity under work breakdown structure elements as defined above.

Switchyard and Tie Line Equipment

The Contractor shall remove specified switchyard and tie line equipment, including the following: 1) overhead static wires; 2) overhead 161kV ACSR conductors; 3) 161kV disconnect switch blades and jaw assemblies; 4) 161kV buses and connecting bus work; 5) 14kV isolated phase bus duct from the main power transformer to the grounding transformer and switch house; 6) 14kV static capacitors; 7) support and suspension insulators and lighting arrestors; and 8) lubricating oil shall be removed from all air compressors located in the 161kV OCBs.

1. Overhead Static Wires

The Contractor shall disconnect and remove all overhead static wires in the switchyard, the static wires in the switchyard back to the C-337 process buildings, and static wires on the two overhead lines connecting C-537 to C-535. The removed steel wires shall be size reduced, if necessary, and loaded into PACRO provided containers. The structures on which the static wires are connected shall not be removed.

2. Overhead 161kV ACSR Conductors

The Contractor shall disconnect and remove all overhead 161kV ACSR conductors in the switchyard and on the two overhead lines connecting C-535 to

C-537. The removed ACSR conductors shall be size reduced, if necessary, and loaded into PACRO provided containers. The structures on which the ACSR conductors are connected shall not be removed.

3. 161kV Disconnect Switch Blades and Jaw Assemblies

The Contractor shall disconnect and remove all 161kV disconnect blade and jaw assemblies in the switchyards. The removed disconnect switch blade and jaw assemblies shall be size reduced if necessary and loaded into PACRO provided containers. The switch support structure and operating mechanism shall not be removed.

4. 161kV Buses and Connecting Bus Work

The Contractor shall disconnect and remove all 161kV aluminum bus work including the bus work from the main power buses to the 161kV disconnect switches, bus work connecting disconnect switches to oil circuit breakers, bus work connecting disconnect switches, and bus work connected to C-537 161kV power reactors. The Contractor shall size reduce the bus work and load it in PACRO provided containers. The structures on which the bus work is mounted shall not be removed.

5. 14kV Isolated Phase Bus Duct

The Contractor shall disconnect, remove, and disassemble the 14kV isolated phase bus duct from the main power transformer to the grounding transformer, switch house, and to the air circuit breaker housing on the C-537 elevated buses. Following removal, the Contractor shall remove the outer aluminum cover of the isolated phase bus duct and remove the support insulators inside the duct to allow for removal of the copper and/or aluminum bus work. The bus duct covers and insulators shall be dispositioned as waste. The copper or aluminum bus work will be segregated and loaded into PACRO provided containers. The structures on which the isolated phase bus duct is mounted shall not be removed.

6. 14kV Static Capacitors

The Contractor shall disconnect and remove the 14kV static capacitors located in C-537-2 switchyard. There are a total of 1080 capacitors installed in 8 capacitor banks in C-537-2. The Contractor shall remove the fence enclosures, size reduce the removed materials if necessary, and properly disposition the materials as waste. Each capacitor can contains approximately 1.3 gallons of non-PCB insulating oil. The Contractor shall electrically isolate each capacitor bank from the 14kV feeder potheads at the first uninsulated connection point. The Contractor shall take appropriate precautions to prevent damage to the capacitor cans, and handle them in such a manner as to protect them for potential reuse.

The Contractor shall remove and load the capacitor banks on to PACRO provided transport conveyance.

7. Support and Suspension Insulators and Lightning Arrestors

The Contractor shall disconnect and remove all support and suspension insulators in the switchyard and on the tie lines associated with the removal of the 161kV ACSR overhead conductors, 161kV bus work, and 161kV disconnect switches. The Contractor shall also remove all lightning arrestors on main power transformers in the switchyards and on the C-537 power reactors. The removed insulators and lightning arrestor shall be placed in the proper container for disposal as waste.

8. 161kV Oil Circuit Breaker Air Compressor Lube Oil Removal

The Contractor shall drain the lube oil from 14 air compressors located in the 161kV OCBs in C-535-2 and from 35 air compressors located in the OCBs in C-537-2. The Contractor shall properly dispose of the oil.

Table EM.PA.0040.A008.42.DR.04.05 PARTIAL DISMANTLEMENT OF THE C-535 SWITCHYARD Milestone/Schedule	
Milestone	Date

Table EM.PA.0040.A008.42.DR.04.06 PARTIAL DISMANTLEMENT OF THE C-537 SWITCHYARD INCLUDING TWO 161KV TIE LINES TO C-535 Milestone/Schedule	
Milestone	Date
Complete the dismantlement of specified equipment in the C-537 Switchyard and two 161kV tie lines to C-535. PACRO items must be placed in appropriate containers and/or loaded on transport trailers. Demobilization and any site restoration must be completed.	February 28, 2022
All waste CODs received.	May 30, 2022

EM.PA.0040.A008.42.DR.04.07 Additional Switchyard Equipment Dismantlement

As directed by the Contracting Officer, the Contractor shall complete the dismantlement of additional switchyard equipment listed in Options 1, 2, 3, and/or 4 below.

For all Options: The specified equipment shall be removed by the Contractor and placed in the appropriate container and/or on mode of conveyance. PACRO shall be responsible

for securing and certifying all loads for shipments of recyclable components/metals including securing vehicle/container lids, doors, and coverings and securing container/component to conveyance. Precautions shall be taken to prevent breakage of the porcelain insulators or glass items for all options presented below. Should any breakage of glass, insulators or lightning arrestors occur, with the exception of inside the waste container, the Contractor shall be responsible for the cleanup and placement of broken material in the proper container. The Contractor shall ensure that the remaining switchyard components and support structures are left in a structurally sound condition. The Contractor shall ensure all hazardous and radioactive contaminated materials are removed and properly dispositioned. All waste shall be properly dispositioned at an off-site disposal facility or at the C-746-U Landfill if waste meets the landfill requirements.

OPTION 1 – 161KV BUS POTENTIAL TRANSFORMERS – This option may be completed at a later date at the direction of the Contracting Officer depending on funding. There is funding on this option to cover work that was completed prior to this modification.

161KV BUS POTENTIAL TRANSFORMERS

The Contractor shall disconnect and remove 6-161kV bus potential transformers (PT) in the C-535-2 switchyard and 12-161kV bus PTs in C-537-2. There is the potential for the oil in the bushing to contain PCBs. The Contractor shall disconnect and remove the bus PTs for proper disposal. The support structures for the PTs shall not be removed.

OPTION 2 – 161KV LINE CURRENT TRANSFORMERS – this option may be completed at a later date at the direction of the Contracting Officer depending on funding. There is funding on this option to cover work that was completed prior to this modification.

161KV LINE CURRENT TRANSFORMERS

The Contractor shall disconnect and remove 6-161kV line current transformers (CT) in the C-535-2 switchyard and 10-161kV line CTs in C-537-2. The Contractor shall disconnect and remove the CTs for proper disposal. The support structures for the CTs shall not be removed.

OPTION 3 – SWITCHYARD LIGHTING FIXTURE GLOBES AND BULBS

The Contractor shall remove all lighting fixture globes and bulbs in the C-535-2 and C-537-2 switchyards. The associated lighting fixtures shall not be removed.

OPTION 4 – 14KV GROUNDING RESISTORS

The Contractor shall disconnect and remove 5-14kV grounding resistors located in C-535-2 switchyard and 13-14kV grounding resistors located in C-537-2 switchyard. The Contractor shall remove the fence enclosures, size reduce the removed materials if necessary, and properly disposition the materials as waste. The grounding resistor banks are constructed with a three-tier design. All waste shall be properly dispositioned at an off-site waste disposal facility.

Table EM.PA.0040.A008.42.DR.04.07 ADDITIONAL SWITCHYARD EQUIPMENT DISMANTLEMENT Milestone/Schedule	
Milestone	Date
As directed by the Contracting Officer, complete the dismantlement of additional switchyard equipment. Demobilization and any site restoration must be completed.	February 28, 2022
All waste CODs received.	May 30, 2022

FRNP will complete additional characterization and preparation activities in the C-535 and C-537 Switchyards in support of the partial dismantlement activities as a result of radiological contamination found in both switchyards. Preparation activities will include additional electrical air gapping and grounding of the static power capacitors in preparation for Switchyards dismantlement. FRNP will complete the additional intrusive radiological surveying in support of free releasing the equipment removed in the C-535 and C-537 dismantlement. Radiological surveying will meet Multi-Agency Radiation Survey and Assessment of Materials and Equipment Manual (MARSAME) cited by DOE O 458.1 for Class III impacted materials (which is above and beyond the MARSAME non-impacted class from original Characterization efforts). The additional surveying will be performed on the following equipment:

- C-535 and C-537 overhead static wires (upon removal),
- C-535 and C-537 161kV aluminum cable steel reinforced (ACSR) conductors (upon removal),
- C-535 wave traps,
- C-535 and C-537 161kV disconnect switch blades and jaw assemblies,
- C-535 and C-537 161kV buses and connecting bus work, and
- C-537 static capacitors.

**** With the exception of temporary outages power to the sump pumps and facility lighting will remain energized.**

EM.PA.0040.A008.42.DR.05 Sewage Treatment Systems

The Contractor shall provide sewage handling and treatment (e.g. C-615 Sewage Disposal Plant) services for the site's contractors/tenants. The C-615 Sewage Treatment Plant provides secondary treatment and consists of primary and secondary settling basins, trickling filter, sludge digester and settling beds, chlorinator, and contact chamber.

The Contractor shall continue isolation of low use or damaged sewer lines, and transition to the use of contractor supplied self-contained restroom facilities.

The Contractor shall assess the capabilities of the on-site sewage collection and treatment systems and facilities for purposes of replacing these facilities with more efficient modular treatment systems or with use of local community sewage treatment districts. Additionally, the Contractor shall assess the Site's near-term and long-term operational needs as the DUF₆ operations continue, environmental remediation activities continue, the PGDP continues to be deactivated, and include as a part of its assessment the needs of other on-site tenants/contractors. The sewage facilities and associated infrastructure have historical radiological contamination, and any recommendation provided by the Contractor must ensure no migration of contamination off-site. The Contractor shall prepare an alternatives analysis to replace, modify, repair, optimize or supplement the existing sewage treatment system, the existing sewage lines, and the existing sewage collection and treatment systems and facilities. A field study (i.e., smoke test, dye and flush test, closed circuit TV, etc. or any combination) has been completed to determine the source of infiltration and inflow (I&I) to the sewage collection system (including manholes) due to cross connections, point source inflow, faulty connections, and sewer system integrity. The Contractor is required to evaluate the results of the Field Study (Reference the Final Sewer Inflow and Infiltration Study and Report at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky) and incorporate the results into the alternative analysis. As part of the alternatives analysis, the Contractor shall include dry chemical and other environmentally friendly sewage systems, and all costs necessary to implement and operate the various alternatives. The analysis shall include an evaluation of all of the cost/benefits for each alternative and a schedule of implementing each alternative, including key milestones.

Table C.2.EM.PA.0040.A008.42.DR.05-1 Sewage Treatment Systems Milestones/Schedule	
Milestone	Date
Submittal of the Sewage Alternatives Analysis	24 months after transition is complete

**Note: Transfer of facilities may involve multiple steps, including lease prior to completing all necessary facility transfer requirements.*

Table C.2.EM.PA.0040.A008.42.DR.05-2 Sewage Treatment System Reference Documents	
Document Number	Document Title
FPDP-RPT-0047/R1	Final Sewer Inflow and Infiltration Study and Report at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

EM.PA.0040.A008.43.DR ANALYTICAL LABORATORY

Onsite laboratory facilities C-709, C-710 and associated ancillary facilities will become the responsibility of the Contractor.

EM.PA.0040.A008.43.DR.01 Analytical Laboratory Operations

Costs for all analytical services shall be assigned to the applicable projects/PWS activities and not included within this PWS. The Contractor's projects/PWS activities and other site tenants/contractors are expected to pay the fully burdened costs for performance of the analytical analysis/services. The costs for analytical testing associated with the analytical services shall be included in the fully burdened rates. Only a prorated amount of the programmatic laboratory management costs or laboratory disposition activities shall be included within this PWS.

The operation of on-site analytical facilities to provide analytical laboratory services will be at the discretion of the Contractor. In the event the Contractor performs some analytical services on-site, the services shall be available to other DOE on-site contractors.

Samples (waste or otherwise) shall be disposed of within six (6) months of the acceptance of the Analytical Laboratory deliverable/data. The Contractor shall arrange for and coordinate the disposition of GFE laboratory equipment no longer needed, chemicals, samples, waste resulting from its services, and any other materials associated with laboratory services.

If the Analytical Laboratory is utilized, the Contractor shall participate in Performance Evaluation Studies (PES) for its self-performed laboratory services provided through industry standard vendors and/or control programs. The PES programs include, but are not limited to:

- a. Mixed Analyte Proficiency Evaluation Report Program (MAPEP),
- b. American Industrial Hygiene Association and National Institute of Occupational Safety and Health Asbestos Proficiency Testing Programs,
- c. Environmental Resource Associates (ERA) Proficiency Testing Program, and Discharge Monitoring Report – Quality Assurance (DMR-QA) study.

The Analytical Laboratory may also be subject to blind PES submittals at the discretion of DOE. The Contractor shall submit to on-site audits led by DOECAP or their designees within the DOE and Contractor organizations. Audit teams will typically consist of personnel from the DOECAP, and other DOE contractors. The audits will be performed periodically as identified by the DOECAP.

Regardless of the Contractor's decision to continue laboratory operations, the Contractor shall disposition samples and/or waste from analytical services provided by the previous contractor that may be present and associated with C-709 and C- 710 laboratory facilities

within 6 months of transition. The Contractor shall disposition all sources, fissionable/fissile materials, chemicals, other materials, and excess GFE equipment remaining in the facility (does not include small cylinders or in-process working reference material liquid and solid) that the Contractor does not use to support its operation of the Analytical Laboratory (including ancillary facilities) or remains after transition from the previous contractor within 6 months of transition. The Contractor shall ensure compliant storage for any remaining small cylinders in-process working reference material not dispositioned by the incumbent contractor. DOE approval is required for disposition of any small cylinders or in-process working reference material.

EM.PA.0040.A008.48.DR STABILIZATION AND DEACTIVATION

The Contractor shall perform stabilization, as appropriate, to ensure the PGDP uranium processing facilities are in a safe configuration (including meeting criticality incredibility (CI)) with minimal S&M activities required until demolition (demo) begins and shall be addressed as part of the Contractor's Stabilization and Deactivation Plan.

In general "stabilization" refers to the early stages of the deactivation process when nuclear and hazardous materials are removed from the facility, shutting facility systems down, de-energizing equipment in preparation for long-term S&M (EM.PA.0040.A008.41), completely isolating (i.e. "air gapping") the facility from site utilities, removal of all fire loading (as required by TFHA), and preparing the facility for long-term surveillance awaiting demolition. With regard to shutting systems down and de-energizing equipment, air gapping shall be used as the preferred method of isolation unless there is a compelling safety and health, environmental, or technical reason not to.

The PGDP enrichment facility consists of 1820 stages by design. The stages are arranged in two cascades. The cascade buildings are designated as C-331 (400 stages), C-333 (480 stages), C-335 (400 stages), C-337 (480 stages) and C-310 (60 stages). The C-331 and C-333 stages are placed in series to form what is known as the "Lower Cascade" and similarly the C-335 and C-337 stages are place in series to form the "Upper Cascade". The Uranium Hexafluoride (UF₆) enriched product and lighter molecular weight gases are separated and removed in the C-310 facility. The depleted UF₆ is removed in the C-315 facility which does not contain operating stages.

In C-310 (purge cascade), the facility contains one Unit. Unit 1 has ten (10) Cells. Each C-310 Cell has six (6) "XX" sized converters (i.e., 60 stages). In C-331 and C-335, each facility contains four (4) Units. Each C-331 and C-335 Unit has ten (10) Cells, each Cell has ten (10) "00" sized converters (i.e., 400 stages each). In C-333 and C-337, each facility has six (6) Units. Each C-333 and C-337 Unit has ten (10) Cells, each Cell has eight (8) "000" sized converters (i.e., 480 stages each).

Under Section 4.4 of the Lease Agreement between DOE and USEC, USEC was required to *"remove solid 'Greater than Safe Mass' (GSM) deposits, of UO₂F₂/UF₄ to the extent necessary to prevent criticality, using an in-place removal process, such as the chemical fluorination treatment; and ensure that nothing adversely affects the operability of the purge cascade, the*

coolant, storage systems, HVAC systems, and air filtration systems.” To comply with the turnover requirements of the Lease Agreement, USEC performed the following activities during the shutdown of operations to establish a Uranium Hexafluoride (UF₆) negative condition:

- a. Isolation of each of the “units” from the remaining process via a series of valves in the process piping;
- b. Evacuation of the Uranium Hexafluoride (UF₆) gas in the equipment and the system flushed with air; and
- c. Follow-up sampling to ensure the individual components contain only minimal amounts of UF₆.

Even though the above processes were followed, it would not be unusual for absorbed UF₆ on equipment surfaces to be transferred to the gas phase resulting in UF₆ concentrations above the UF₆ negative definition.

Uranium-containing materials are deposited on the surfaces of the PGDP UF₆ systems by three mechanisms: adsorption, metal corrosion, and hydrolysis. An initial deposition of uranium as UF₆ occurs almost instantaneously because of chemisorption on the equipment surfaces. The quantity of chemisorbed material does not change with exposure time; it is always present. A relatively small additional amount of physically adsorbed material UF₆ was present when the plant was in operation but most of this material was removed during normal cascade shutdown, evacuation, and purging. The internal structural materials of the cascade include nickel, aluminum, nickel plated steel, copper, and small quantities of iron which were corroded by UF₆. The corrosion process produces a solid deposit, reduced uranium fluoride, which can be UF₅, UF₄, or U₂F₉. Deposition of these reduced uranium compounds have occurred and thus these compounds are present to some degree throughout the cascade. This deposited uranium is referred to as the in process uranium “hold-up.”

Solid uranium-containing material (referred to as “deposits”) can also be deposited on the cascade surfaces, in the form of uranium oxy-fluorides principally as UO₂F₂ but possibly others as well by the reaction of UF₆ with moisture that entered the cascade through small leaks in the process and equipment failures such as seals, valves, and expansion joints. Most of the material formed by this mechanism is deposited on surfaces in the vicinity of the in-leakage point. Removal of the uranium within the process equipment will facilitate reducing the Hazard Categorization of the uranium processing facilities to Radiological. This will reduce the long-term S&M costs associated with the facilities and subsequent waste characterization and waste disposal associated with demolition activities.

There are a number of converters and compressors that have been removed from the process that may contain deposits/hold-up and are currently stored in the process facilities. Although these items are no longer connected to the cascade, the Contractor shall ensure characterization is completed and, if necessary, deposit/hold-up removal is performed on these components. For converters, this activity will be completed prior to packaging and disposition at an off-site waste disposal facility.

There are ten (10) Portable Cell Treatment Cart (PCTC) Systems that are available as GFSI and may be used by the Contractor in support of stabilization and deactivation activities. The PCTC consists of a large oven containing eight (8) sodium fluoride filled traps for trapping out UF₆. This is referred to as the NaF trap cart or NTC. The system also contains an analytical test buggy (ATB) used for gas sampling and analysis along with associated support equipment (pumps; temperature, pressure, and flow instrumentation; etc.). If utilized, the Contractor shall be responsible for completion of all design, testing, or operational activities required to ensure effective operation of the PCTC systems.

Deposit/Holdup Removal activities are primarily focused on C-333/C-333A, C-360, and the associated process facility tie lines. The Contractor shall implement its technical approach to effectively and efficiently remove uranium deposits. The Contractor shall ensure that the chosen approach (e.g., mechanical removal, cut and cap for offsite disposal, etc.), and sequencing of activities for deposit/hold-up removal takes into consideration uranium deposit/hold up removal in adjacent facilities.

Table C.2. EM.PA.0040.A008.48.DR-1 STABILIZATION AND DEACTIVATION OF PROCESS FACILITIES	
Milestone	Date
Develop and Submit a Stabilization and Deactivation Plan	NLT 30 days after transition

EM.PA.0040.A008.48.DR.01 NDA Characterization for Deposit/Hold-up Removal for the Process Facilities

The Contractor shall propose the sequence of operations and identify the appropriate lower level WBS elements to allow the Government to understand what work is being proposed and what the proposed cost is for the C-331 (including work completed to date and remaining hazardous material removal) and C-333/C-333A facilities.

The Contractor shall develop a technical approach to address the impact and obtain DOE approval related to the NDA capability necessary for characterizing the four process facilities. If the approach requires engineering and design work or the design procurement, installation and testing of facility modifications (e.g., Large Component Assay System), the Contractor shall provide an opportunity for 30%, 60%, 90%, and Certified for Construction (CFC) design package reviews by DOE. The Contractor shall plan for and schedule regular planning and comment resolution meetings with DOE personnel to facilitate decision making and streamline the document preparation and approval process. After DOE has approved the CFC design, the Contractor should fabricate the necessary equipment and DOE Performance Demonstration Program (PDP) testing (or DOE approved alternative approach) must be passed.

The Contractor shall develop any additional protocols (NDA, visual inspections, sampling and testing, statistical analysis, etc.) that are required to support achieving demo ready status of the facility. These protocols need to include identification of specific data

that will be collected, how it will be collected and how it will be used to assess post treatment conditions. The data collected will also be utilized to identify/evaluate the removal of unneeded CAAS Clusters once the deposit/holdup removal activities are completed. The evaluation should address serviceability through completion of future deactivation and decommissioning activities.

The Contractor shall perform characterization of process and auxiliary equipment in the process facilities in support of DOE's mission including but not limited to, achieving CI and meeting the Waste Acceptance Criteria (WAC) for an off-site waste disposal facility. All characterization data will be electronically managed in a manner that facilitates easy retrieval, is traceable to the building and process equipment, and is capable of passing an independent validation by a 3rd party.

In accordance with the Contractors approved NDA Quality Assurance Program (QAP), the Contractor shall characterize all process equipment within the process facilities. Other methods (e.g., borescoping, sampling, etc.) determined by the Contractor may be utilized for characterization in accordance with approved QAP and NCS documents. For C-333/C-333A, characterization activities shall support declaration of the facility as demo ready as defined in WBS EM.PA.0040.A008.48.DR.02, meets the WAC for off-site disposal, and supports meeting Department of Transportation (DOT) requirements for shipment of the demo debris pile as Low Level Waste (LLW).

Table C.2. EM.PA.0040.A008.48.DR.01-1 CHARACTERIZATION OF THE PROCESS FACILITIES	
Milestone	Date
Submit 30%, 60%, 90%, and CFC design packages as required for Non-Destructive Assay (NDA) characterization systems for review by DOE	As established in the Contractor Performance Baseline (CPB) and approved by DOE
Fabricate the necessary NDA equipment and pass DOE Performance Demonstration Program (PDP) testing (or DOE approved alternative approach).	In sufficient time to meet the NDA characterization requirements and CPB and contract milestones
Complete development of NDA capability for characterizing "00" facilities which supports declaration of the facility as demo ready as defined in WBS EM.PA.0040.A008.48.DR.02, meets the WAC for off-site disposal, and supports meeting DOT requirements for shipment of the demo debris pile as LLW.	As established in the Contractor Performance Baseline (CPB) and approved by DOE.
Complete development of the CI limits for the "00" facilities. The technical basis for the CI limits must be accepted by DOE.	As established in the Contractor Performance Baseline (CPB) and approved by DOE
Complete development of NDA capability for characterizing "000" facilities which supports declaration of the facility as demo ready as defined in WBS Em.PA.0040.A008.48.DR.02, meets the WAC for off-site disposal, and supports meeting DOT requirements for shipment of the demo debris pile as LLW.	As established in the Contractor Performance Baseline (CPB) and approved by DOE.

Complete development of the CI limits for the “000” facilities. The technical basis for the CI limits must be accepted by DOE.	As established in the Contractor Performance Baseline (CPB) and approved by DOE.
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EM.PA.0040.A008.48.DR.01.05 NDA Characterization of C-360 Facility

The Contractor shall perform characterization of process equipment in C-360 in support of DOE’s mission including but not limited to, achieving CI and meeting the WAC for an OSWDF. All characterization data will be electronically managed in a manner that facilitates easy retrieval, is traceable to the building and process equipment, and is capable of passing an independent validation by a 3rd party.

In accordance with the QSND program, the Contractor shall characterize all process equipment within C-360 facility including, but not limited to:

- All equipment associated with sampling activities (i.e., sample cabinets, valves, lines/piping, tubing instrumentation, etc.);
- All equipment associated with transfer activities (i.e., autoclave piping/lines, valves and instrumentation, transfer piping/lines, valves and instrumentation);
- Technetium traps located at each autoclave and in downstairs transfer station; and
- Loose and/or spare UF₆ process equipment such as valves, joints, and piping, that were either cut out of operating equipment or are spare parts

Table C.2. EM.PA.0040.A008.48.DR.01.05-1 CHARACTERIZATION OF C-360	
Milestone	Date
Complete development of NDA capability for characterizing C-360 in a manner that supports achieving CI and meeting the WAC for an OSWDF. DOE Performance Demonstration Program (PDP) test (or DOE approved alternative approach) must be passed.	NLT 24 months after transition
Complete development of the CI limits for C-360. The technical basis for the CI limits must be accepted by DOE.	NLT 24 months after transition
Complete all NDA measurements for the C-360 facility in support of achieving CI and meeting the WAC for an OSWDF. Measurement data must be presented in an electronic form that is capable of passing an independent validation by a 3 rd party.	NLT 48 months after transition

EM.PA.0040.A008.48.DR.01.06 Reserved

EM.PA.0040.A008.48.DR.02 Deposit/Hold-up Removal for the Process Facilities

The Contractor shall propose the sequence of operations and identify the appropriate lower level WBS elements to allow the Government to understand what work is being proposed and what the proposed cost is for each of the four (4) process facilities (C-331,

C-333/C-333A, C-335, and C-337/C-337A) (*NOTE: C-337A and C-333A are considered part of C-337 and C-333 respectively*).

The Contractor shall complete the removal and disposition of any remaining lube oils and other hazardous materials (e.g., mercury switches, cesium sources, PCB, asbestos, etc.) from facilities undergoing stabilization and deactivation. The Contractor shall complete the performance of the necessary facility stabilization and deactivation activities including, but not limited to, the following:

- a. Evaluate and determine the need for the continued safety requirements for monitoring and/or maintaining systems; and
- b. Perform deactivation and/or verification activities that support facilities stabilization, per DOE O 420.1C, *Facility Safety* and contractor safety basis documentation;
- c. Remove fire loading from each facility; and
- d. Ensure a Transitional Fire Hazards Analysis (TFHA) is developed and approved.

NOTE: The remainder of this WBS is for achieving demo ready status of the C-333/C-333A facility.

The Contractor shall complete all activities necessary to achieve demo ready status of the C-333/C-333A facility and associated tie lines back to the C-331 facility. Demo ready activities include, but are not limited to, the following:

- a. Design and construction of a material sizing area (MSA). The MSA will be capable of material sizing for large process gas equipment (PGE), which includes both 00 and 000 equipment sizes (e.g., compressors, converters [including converter shells and internal converter coolers], cell recycle coolers, freezer sublimers, and pipe and valves) and deposit removal of PGE as necessary to meet off-site WAC. Equipment size reduction and deposit removal activities should be designed and operated to have the capability to handle both fissile and nonfissile equipment.
- b. Design and construction of a tube bundle volumetric reduction area to size reduce and package barrier materials for storage onsite.
- c. Removal and disposition off-site of all converters, shells, internal converter coolers, cell recycle coolers, and freezer sublime vessels to ensure compliance with CI and demo ready requirements. (Converter bundles are to be packaged and stored onsite);
- d. Converter shells and internal coolers shall not exceed the one year DOE O 435.1 limit on storage requirements for LLW without DOE approval;
- e. Removal and disposition of any PCB contaminated equipment (e.g., troughing, ventilation ducts, gaskets, etc.) to ensure compliance with the Federal Facility Compliance Act (FFCA);
- f. Removal and disposition of RCRA hazardous material sufficient to allow remaining material to be dispositioned during demo as Low Level Waste (LLW) (no mixed LLW left in facility);

- g. Removal and disposition of all asbestos containing material (except building siding);
- h. Removal and disposition of radiological contaminated items necessary to meet the WAC for an off-site disposal facility and achieve the open air demolition requirements;
- i. Clean-out of all tanks, pits, piping, etc., including all basement areas and physical verification that no liquids or solids remain in the items above contamination levels or levels that would require the materials to be managed as hazardous;
- j. Removal and disposition of deposits/hold-up;
 - ☐ To allow downgrade of the facility to radiological OR
 - ☐ To allow disposition of the remainder of the facility in accordance with the approved NCS program while maintaining low chemical consequence to the co-located worker and the public.
- k. Removal and disposition of combustible loading in accordance with endpoints established in a DOE approved TFHA for the facility;
- l. Deactivation or reconfiguration of all fire suppression systems in a manner that eliminates the need for freeze protection and reduces S&M costs;
- m. Removal and disposition of any material (e.g., radiological, hazardous, etc.) that would exceed DOT radiological limits for transportation of the demo debris pile to an off-site waste disposal facility.
- n. Complete isolation and air gapping of utilities (underground and above ground) not required to support long term S&M (DOE approval of utilities left in-service is required). Isolation/air gapping shall be performed at a location that allows demo of the facility without requiring further isolations;
- o. Filling of subgrade areas, basements, and tunnels, with controlled low strength materials (CLSM) after all equipment and materials have been removed and characterization is completed under the required regulatory documents, as necessary. (All drains in these areas shall be verified empty of liquids and plugged, prior to filling. Filling of tunnels shall be performed consistent with approach for tie lines, i.e., back to adjacent facility);
- p. Characterization and disposal of all generated wastes either at an off-site waste disposal facility or in the C-746-U Landfill, should be waste meet the waste acceptance criteria for the landfill. (Prior to disposal, all waste shall comply with Export Control Information requirements) (Contractor shall secure any special permits required)
- q. All floor drains in the facility shall be plugged. (Roof drains are exempted and shall remain in service); and,
- r. Any electrical, mechanical, and/or data lines (e.g., air lines, data gather panel alarm systems, etc.) which pass through the facility and are relied on by other facilities, shall be rerouted.
- s. For the C-333 facility, and in accordance with the Site Management Plan, the contractor shall complete a removal site evaluation (SE) within 60 days of completion of deactivation activities to determine if a Non-Time-Critical Removal Action (NTCRA) is necessary for follow on demolition activities and submit the report to DOE.

In support of the hazard reduction objectives of stabilization, the Contractor shall perform deposit/holdup removal for all process equipment, valves, and process piping (both installed and removed/loose) to ensure the facility is in a safe configuration with minimal S&M activities required until demo begins.

The overall goal is to remove uranium deposits to a level that results in CI for the facility throughout the process of dispositioning the process equipment (CI for S&M, debris piles and off-site disposal). The uranium removal in the uranium processing facility and associated tie lines allows for the elimination of the criticality safety controls in the process facility and tie lines, shut down of the CAAS in the facility, and allows for air gapping of utilities and associated support systems to reduce S&M costs.

The Contractor shall also design, procure, install and test any required PGDP facility modifications necessary in support of this work (e.g., Material Sizing Area, bundle volumetric reduction area, etc.). The Contractor shall provide an opportunity for 30%, 60%, 90%, and CFC design package reviews by DOE. The Contractor shall plan for and schedule regular planning and comment resolution meetings with DOE personnel to facilitate decision making and streamline the document preparation and approval process. After DOE has approved the CFC design, the Contractor should fabricate the necessary equipment.

The Contractor shall dispose of any fissile equipment and not return the item to the facility after the fissile material has been removed, unless agreed to by DOE. Relocation to another on-site facility for storage is not authorized without DOE approval. Relocation to a material sizing area or hold-up removal area is permitted.

The Contractor shall modify applicable safety basis documents for the facility to support elimination of the CAAS and obtain approval of all documentation necessary to support criticality incredibility, including safety authorization basis changes. The contractor shall develop and provide for DOE concurrence, detailed documentation showing the demo ready status end-state of the facility.

Table C.2. EM.PA.0040.A008.48.DR.02-1 DEPOSIT/HOLD-UP REMOVAL FOR THE PROCESS FACILITIES	
Milestone	Date
A TFHA shall be developed and approved for each of the four Process Facilities (C-331, C-333/C-333A, C-335, C-337/C-337A)	NLT 72 months after transition
If modifications are required, submit 30%, 60%, 90%, and CFC design packages for DOE review in support of deposit removal in C-333/C-333A (e.g., Material Sizing Area, bundle volumetric reduction area, etc.).	As established in the Contractor Performance Baseline (CPB) and approved by DOE

Complete all activities necessary to achieve demo ready status of the C-333/C-333A process facility.	May 20, 2027
Develop and provide for DOE concurrence, detailed documentation of the demo ready end-state of the facility.	May 20, 2027
Complete a Site Evaluation in accordance with the Federal Facility Agreement and submit the report to DOE	October 30, 2025

EM.PA.0040.A008.48.DR.02.05 Deposit Removal for C-360

The Contractor shall complete the removal and disposition of any remaining lube oils, Freon, or other hazardous materials (e.g., mercury switches, cesium sources, asbestos, PCB, etc.) and complete the shutdown and isolation of the facilities, supporting long-term S&M in the C-360 facility. The Contractor shall complete the performance of the necessary facility stabilization and deactivation activities including, but not limited to, the following:

- a. Evaluate and determine the need for the continued safety requirements for monitoring and/or maintaining systems; and
- b. Perform deactivation and/or verification activities that support facilities stabilization, per DOE O 420.1C, Facility Safety and contractor safety basis documentation; and
- c. Remove fire loading from each facility; and
- d. Ensure a Transitional Fire Hazards Analysis (TFHA) is developed and approved.

In support of the hazard reduction objectives of stabilization, the Contractor shall perform deposit/holdup removal for all process equipment, valves, and process piping (both installed and removed/loose) to ensure the facilities are in a safe configuration with minimal S&M activities required until decommissioning begins. The criteria for successful deposit/holdup removal is to disposition nuclear materials in uranium processing facilities in a manner that presents a CI condition and that when the facility is eventually decommissioned, that the resulting waste is compliant with the applicable waste acceptance criteria for an off-site waste disposal facility.

The overall goal is to remove uranium deposits to a level that results in CI for the facility throughout the process of dispositioning the process equipment (CI for S&M, debris piles and off-site disposal. The uranium removal in the uranium processing facilities and associated tie lines allows for the elimination of the criticality safety concerns in each of the process facilities and tie lines, shut down the CAAS in each facility, and to be able to air gap utilities and associated support systems to reduce S&M costs. A secondary goal is to be able to avoid the need for additional uranium treatment to meet waste acceptance criteria for an off-site disposal facility during demolition activities. Exhibit C-1, PDGP Shutdown Cell Status to Support Deposit & Hold-up Removal, is available for reference.

The PCTC Systems that are available as GFSI and may be used by the Contractor to conduct in-situ chemical treatment (ICT) activities of the PGDP process equipment. The Contractor shall be responsible for completion of all design, testing, or operational

activities required to ensure effective operation of the PCTC systems for deposit removal from the cells, associated UF₆ piping, valves, expansion joints, bellows, etc. The Contractor shall collect the resulting/ regenerated UF₆ material, handling it as product (in large UF₆ cylinder) for transfer to the DUF₆ Contractor. If additional PCTC systems are deemed necessary to support the stabilization approach, the Contractor may procure more PCTCs.

The Contractor shall also design, procure, install and test any required PGDP facility modifications necessary to support the deposit/hold-up removal approach.

The Contractor shall develop any additional protocols (NDA, visual inspections, sampling and testing, statistical analysis, etc.) that will be used to demonstrate that the post treatment condition of the equipment and piping will meet completion thresholds for deposit/hold-up materials removal activities. These protocols need to include identification of specific data that will be collected, how it will be collected and how it will be used to assess post treatment conditions. The data collected will also be utilized in the future to support development of final waste acceptance criteria for the process equipment and piping and identify/evaluate removal of unneeded CAAS Clusters once the deposit/holdup removal activities are completed. The evaluation should address serviceability through completion of future deactivation and decommissioning activities.

The Contractor shall dispose of any fissile equipment and not return the item to the facility after the fissile material has been removed, unless agreed to by DOE. Relocation to another on-site facility for storage is not authorized without DOE approval.

The Contractor shall remove the deposit and hold-up materials from all equipment in the C-360 facility. This includes, but is not limited to:

- a. All equipment associated with sampling activities (i.e., sample cabinets, valves, lines/piping, tubing instrumentation, etc.); and
- b. All equipment associated with transfer activities (i.e., autoclave piping/lines, valves and instrumentation, transfer piping/lines, valves and instrumentation; and
- c. Technetium traps located at each autoclave and in downstairs transfer station; and
- d. Loose and/or spare UF₆ process equipment such as valves, joints, and piping that were either cut out of operating equipment or are spare parts.

Consistent with the approved TFHA, all fire systems in the C-360 facility including support systems (e.g., fire alarm box, data gathering panels, reporting systems, etc.) shall be deactivated or configured in a manner that eliminates the need for freeze protection and reduces S&M costs. Modification of facilities to eliminate the need to provide fire suppression is an acceptable approach. The Contractor shall submit all supporting documentation and authorization basis changes for deactivation of the fire systems in this facility.

The Contractor shall complete deposit/holdup removal of the uranium processing equipment in the C-360 facility. This includes but is not limited to:

- a. Removal of all deposits/hold-up to below levels needed to achieve incredibility of criticality and removal/shutdown of CAAS in each facility and to meet the WAC for an offsite Waste Disposal Facility;
- b. If ICT is utilized, transfer of any large UF₆ cylinders generated as part of deposit/hold-up removal to the DUF₆ Contractor when the cylinder is full;
- c. Submit all documentation necessary to support criticality incredibility, including authorization basis changes to downgrade the uranium processing facilities from Category 2 Nuclear Facilities to Radiological facilities, and gain DOE approval;
- d. Deactivate/shutdown the CAAS in the uranium production facilities; and
- e. Isolate and air gap all utilities.

Completion Thresholds for uranium deposit/hold-up removal are as follows:

- Removal of uranium to allow the shutdown of the CAAS for the given areas treated;
AND
- Removal of uranium to allow the process equipment and piping to be placed in an On-site Disposal Facility (e.g. On-Site CERCLA Cell) without further processing. Assume a target waste acceptance criteria for total elemental uranium of 100,000 mg/kg;
AND
- Removal of uranium and re-categorization of the processing facilities from Category 2 Nuclear Facilities to Radiological Facilities.

The Contractor shall complete all activities necessary to achieve demolition (demo) ready status of the C-360 facility and associated tie lines. The contractor shall develop and provide for DOE concurrence, detailed documentation showing the demo ready end-state of the facility.

In addition to completion criteria and end-points listed previously in this WBS, demo ready for C-360 also includes, but is not limited to, completion of the following:

- a. Removal and disposition of any PCB contaminated equipment (e.g., troughing, ventilation ducts, gaskets, etc.) to ensure compliance with the Federal Facility Compliance Act (FFCA);
- b. Removal and disposition of RCRA hazardous material sufficient to allow remaining material to be dispositioned during demo as Low Level Waste (LLW)(no mixed LLW left in facility);
- c. Removal and disposition of radiological contaminated items to meet the waste acceptance criteria for an off-site disposal facility and achieve the open air demolition requirements;
- d. Removal and disposition of all asbestos containing material (except external building siding).
- e. Clean-out of all tanks, piping, etc., including all basement areas associated with the work zone, physical verification that no liquids or solids remain in the items

above contamination levels that would require the materials to be managed as hazardous;

- f. Characterization and disposal of all generated wastes either off-site or in the C-746-U Landfill, should the waste meet the landfill waste acceptance criteria.

NOTE: Power to the elevator pit sump pump shall remain in service. For the purpose of this contract scope for C-360, demo ready does not require flow fill in sub-grade areas. Building roof and floor drains will remain active.

Table C.2. EM.PA.0040.A008.48.DR.02.05-1 DEPOSIT/HOLD-UP REMOVAL FOR C-360	
Milestone	Date
A TFHA shall be developed and approved for C-360	NLT 60 months after transition
Complete deposit removal to be less than CI limits for each process equipment component (assuming 5% of all process equipment components will be above the CI limits) and also meet target waste acceptance criteria for total elemental uranium of 100,000 mg/kg	NLT 96 months after transition
Complete deactivation of the fire systems in C-360 including any supporting systems (e.g., fire alarm, data gathering panels, reporting systems, etc.).	January 30, 2019
Complete all activities necessary for C-360 to achieve demo ready status.	September 15, 2019
Develop and provide for DOE concurrence, documentation of the demo ready end-state of the facility.	September 30, 2019

EM.PA.0040.A008.48.DR.02.06 Reserved

EM.PA.0040.A008.48.DR.03 C-400 Deactivation

The Contractor shall complete full deactivation of the C-400 Cleaning Facility Work Zones 7, 8, 9 and 12 through 19 (see Exhibit C-2 for map of Work Zones) by removing all hazardous equipment and materials, all fissile materials and equipment, and other items necessary to leave the facility in a demolition-ready state. These activities include, but are not limited to, completion of the following:

- a. Clean-out of all tanks, pits, piping, etc., including all basement areas associated with the work zone, physical verification that no liquids or solids remain in the items above contamination levels or levels that would require the materials to be managed as hazardous;
- b. Removal of facility equipment, personal property/fixtures, tanks, drums, all asbestos in the building including wiring insulation (excluding interior transite panels), LLW PCB contaminated items, etc. that cannot be left behind for building demolition;
- c. Cleanout of the work zones to maximize open floor space for sampling associated with EM.PA.0040.A005.10.DR.01;

- d. Evaluation of contents within the facility for reuse or excessing in according with the Asset Recovery and Recycling Program;
- e. Complete NDA characterization and NCS safety basis revisions for Work Zones 9 and 14 to allow for deactivation of all equipment;
- f. Complete air gapping all underground and above-ground utilities to the facility, including support structures, back to the nearest active junction/tie-in.; and
- g. Characterization and disposal of all generated wastes either off-site or in the C-746-U Landfill, should the waste meet the landfill waste acceptance criteria.

The Contractor shall develop a schedule for deactivating the different work zones that is integrated with the schedule for remedial investigation activities associated with PWS EM.PA.0040.A005.10.DR.01.

As part of the Contractor's safety and health oversight activities, the Contractor shall perform air monitoring (or other applicable monitoring) within C-400 to address the potential for trichloroethylene [TCE] vapor intrusion resulting from the underlying TCE contaminated groundwater plume. All activities, including schedules, shall be fully coordinated with the Contractor's Environmental Monitoring organization to ensure that all Federal and State commitments are met.

Table C.2. EM.PA.0040.A008.48.DR.03-1 C-400 Deactivation	
Reference Document Number	Title
KY/ERWM-38	C-400 Process and Structure Review, May 3, 1995.

Table C.2. EM.PA.0040.A008.48.DR.03-2 C-400 Deactivation	
Milestone	Date
Detailed Schedule Integrated with Planned C-400 Demolition and Subsurface Soil Investigation Activities for DOE Approval	Second Quarter FY18
Complete deactivation of all Work Zones and Disposition of All Wastes	September 27, 2018

EM.PA.0040.A008.48.DR.04 C-746-Q/Q1 Cold Trap Disposition

In C-746-Q/Q1, there are 20 UF₆ Cold Traps that were removed from the C-410 Feed Plant, packaged into boxes and placed into storage. These cold traps are not expected to contain greater than 0.722 weight % U²³⁵ (NU). However, they are believed to contain uranium and small quantities of transuranic compounds such as neptunium and plutonium, plus ⁹⁹Tc requiring additional radiological controls. Additionally, there are 2 UF₆ Cold Traps stored in C-746-Q/Q1 that were previously stored in C-746-B Doors 1&2 and that are believed to have originated from Oak Ridge and were temporarily used in the PGDP process. The Contractor shall complete disposition of all 22 cold traps. In the

event that the Portable Cell Treatment Carts (PCTC) systems are used to support disposition of the cold traps, the Contractor shall ensure that any radiological contaminants such as transuranic compounds and ^{99}Tc are not re-introduced into the process facilities or into the cylinder collecting the regenerated UF_6 from the uranium process facility deposit/hold-up removal. Any such off-spec uranium generated from the cold traps shall be dispositioned as waste.

Table C.2. EM.PA.0040.A008.48.DR.04-1 C-746-Q/Q1 COLD TRAP DISPOSITION	
Reference Document Number	Title
S7DC7460BA001-1	10'x25' Top Loader Container Fabrication Details (1 of 2)
S7DC7460BA001-2	10'x25' Top Loader Container Fabrication Details (2 of 2)
	Cold Trap Storage Containers Certificate of Conformance
	Cold Trap Sketches

Table C.2. EM.PA.0040.A008.48.DR.04-2 C-746-Q/Q1 COLD TRAP DISPOSITION	
Milestone	Date
Complete Disposition of 22 Cold Traps stored in C-746-Q/Q1	NLT 24 months after transition

EM.PA.0040.A008.48.DR.05 Nickel and ^{99}Tc Microwave Thermal Treatment Technology Study and Evaluation

Within the 30 months after transition, the contractor shall complete activities to investigate the use of microwave technology to thermally treat the ^{99}Tc contained in the nickel barrier and subsequently melt the metal nickel for recovery purposes.

All personnel performing this evaluation must possess (at a minimum) an "L" Clearance.

The goal of the Nickel and ^{99}Tc Microwave Thermal Treatment Technology Study and Evaluation is to determine if the use of microwave technology to in-situ thermally heat and melt the nickel in an installed converter, allowing the release and capture of ^{99}Tc in the barrier, is practical. As such, this technology potentially allows for nickel recycling, reduces the weight loading of the converters, and allows them to be removed during facility demolition.

The Nickel and ^{99}Tc Microwave Thermal Treatment Technology Study and Evaluation must evaluate Microwave Thermal Treatment with the following specific requirements and objectives:

- Thermally smelt 100% of classified barrier material to permit declassification. Smelting of other metals (e.g. Copper, Aluminum) within the converter shall also be demonstrated;
- Reduce ^{99}Tc concentrations within the converter to permit material to be disposed of in an on-site CERCLA Cell;
- Remove 95% of the nickel and 95% of the other recyclable metals in the converter;
- Ensure treated converter can be left "in-place" for removal at facility demolition;

- e. Demonstrate capability in a “000” converter;
- f. Prevent re-deposit of the released ^{99}Tc in other portions of the converter/cascade;
- g. Capture of the ^{99}Tc using PCTC (or similar/simulated trapping method) with recommendations for improving the trapping process; and
- h. Removal (draining) of smelted metals from the installed converter to allow for removal and storage elsewhere.

The Contractor will design and complete a bench scale test study to demonstrate the safety and potential implementation success of microwave thermal treatment.

The Contractor shall issue a report to DOE upon completion of the bench scale study. The report shall provide DOE with a detailed description of the study, an evaluation of the feasibility data and the associated technology, identification of the advantages and disadvantages of the technology, validation of the results in regards to the technologies ability to meet the goals in regards to ^{99}Tc removal and metal melt, opportunities to enhance the technologies performance, evaluation of the economic viability of the technology in regard to pilot scale implementation.

Table C.2.EM.PA.0040.A008.48.DR.05-1 Nickel and ^{99}Tc Microwave Thermal Treatment Technology Study & Evaluation	
Milestone	Date
Design and complete a bench scale test study to demonstrate the safety and potential implementation success of microwave thermal treatment	In accordance with Contractor's technical proposal
Issue a report upon completion of the bench scale study for DOE approval	In accordance with Contractor's technical proposal

EM.PA.0040.A008.48.DR.06 R-114 Freon

The Contractor shall manage and inspect the existing R-114 inventory. This shall include inspection and maintenance on rail cars and ISOs to check for leaks and monitor R-114 levels to ensure they are not leaking to the atmosphere. The Contractor shall also manage R-114 inventories in the process buildings in accordance with regulations, safety basis documents, and procedures.

Historically, PGDP has maintained approximately 8.5 million pounds of R-114 Freon on site. Approximately 5.0 million pounds of the R-114 is being stored on site in rail cars and ISO containers. The majority of the remaining 3.5 million pounds is contained in the Process Building (C-310, C-331, C-333, and C-335) coolant systems and in the process equipment (e.g., drain tanks, condensers, etc.). Most of the R-114 has already been removed from the C-337 Building. And is being stored in rail cars on site. Approximately 75,000 pounds of R-114 remain in C-337 purge and evacuation pumps and the east drain tank. An additional 200,000 to 300,000 pounds of R-114 has been transferred from the Portsmouth Gaseous Diffusion Plant to Paducah and is stored on site in ISO containers. Twelve of the railcars being used for R-114 Storage are DOT compliant.

The Contractor shall identify and evaluate options for recycle/conversion/disposal of all R-114 on site. The Contractor shall complete a procurement subcontract, including the award of the subcontract, for the disposition of the R-114. The Contractor scope associated with the award of a subcontract is considered complete when the subcontract is awarded. The DOT certification, transportation fees and disposition costs for the R-114 should not be included in the proposal pricing. PGDP currently has approximately 8.5 million pounds of R-114 on site.

The Contractor shall prepare and submit for DOE approval a report documenting this evaluation. The report should include, but not be limited to:

- Discussion of options identified/evaluated,
- Positive/negative aspects and risks associated with each option,
- Cost benefit analysis of the options evaluated,
- Recommended option, and
- Cost estimate and schedule for implementation

In the event the Contractor determines the appropriate means of dispositioning the R-114 is via a subcontract, the Contractor is required to fully brief DOE on all details (scope, schedule, budget, etc.) prior to award of any subcontract.

Table C.2.EM.PA.0040.A008.48.DR.06-1 R-114 Freon Milestones/Schedule	
Milestone	Date
R-114 Conversion/Disposition Options Evaluation	11/30/18

EM.PA.0040.A008.48.DR.06.03 R-114 Transfer Equipment

The Contractor shall procure the necessary equipment that allows the transfer of R-114 from railcars into ISO containers and/or other railcars. Once equipment has been procured, the contractor shall develop the required procedures and training, and complete training for personnel. It is anticipated that one transfer unit will be procured initially and a second one as needed to support project schedule.

EM.PA.0040.A008.48.DR.06.04 R-114 Pre-Disposition Activities

The Contractor shall complete any necessary pre-disposition activities to support getting the current R-114 inventory off-site. This element may include, but is not limited to the following type of activities:

- Any Sampling necessary for shipment off-site.
- Any vendor upfront training or equipment setup required to be ready to accept the R-114 shipments.

Table C.2.EM.PA.0040.A008.48.DR.06-2 R-114 Disposition Milestones/Schedule	
Milestone	Date
Complete procurement of R-114 transfer equipment that allows the transfer of R-114 from railcars to ISO containers, complete development of training and procedures, and train necessary personnel.	1 st Unit – 11/14/2019 2 nd Unit – 3/12/2020
Submit a Sampling and Analysis Plan to DOE for approval	9/20/2019
Vendor training and equipment setup	12/6/2019

EM.PA.0040.A008.48.DR.06.05 R-114 Disposition Off-Site

The Contactor shall complete the disposition of R-114 off-site. The rate (cost/pound) or disposition is identified in three (3) Basic Ordering Agreements dated 12/18/2018 (FRNP PO-0003259, FRNP PO-0003507, and FRNP PO-0003529). This element should include any certification of transportation methods. The contractor shall provide a certificate of disposal/destruction (COD) for proof of disposition.

EM.PA.0040.A008.48.DR.06.06 Clean-out and Disposition of Heel in Railcars and ISO Containers

The Contactor shall complete the clean-out and removal of heel remaining in railcars and ISO containers once R-114 disposition activities are completed and the need for the containers no longer exists. The rates for clean-out of railcars and ISO containers are identified in the BOAs listed above. The contractor shall provide evidence the railcar/container has been emptied and is free of R-114/contaminates.

C.3 TECHNICAL OPTION WORK

RESERVED

C.4 IDIQ

Contract requirements which are not included above may be included in the IDIQ CLIN. Such work, tasks, and activities may include, but are not limited to, the following general areas of the PWS:

- Facilities maintenance, alterations, and recapitalization;
- Facility deactivation, decontamination or demolition;
- Safeguards and security support;
- Engineering support;
- Facility construction; and
- Remedial investigations and regulatory documents.

The scope of work and period of performance will be specified in each task order.

EM.PA.0040.A009.04.DR.01 C-400 Demolition

Should this PWS element be required; the Contracting Office will issue a Task Order Request.

The Contractor shall complete the demolition of the C-400 Facility. This includes all above ground and below ground structures associated with the C-400 Facility and support systems in direct contact with the C-400 Facility such as: HVAC systems, material and equipment supply lines to and from the C-400 Facility, and other structures and equipment to ensure the complete removal of C-400 from other surrounding facilities. Transite panels will be manually removed. The slab will be left in place; however, the sumps, basement areas and low areas are required to be filled with flowable fill. Drain lines and piping will be plugged before filling with flowable fill. Slab will be decontaminated and/or sealed. All waste must be disposition onsite or offsite.

Table C.4.EM.PA.0040.A009.04.DR.01-1 C-400 BUILDING DEMOLITION Milestones/Schedule	
Milestone	Date
Complete filling of sumps, basements and low areas with flowable fill	Consistent with Exercise of Task Order
Complete removal of both interior and exterior transite panels	Consistent with Exercise of Task Order
Complete C-400 Demolition	Consistent with Exercise of Task Order
Complete disposition of all waste	Consistent with Exercise of Task Order

EM.PA.0040.A009.04.DR.02 On-Site Waste Disposal Facility (OSWDF) Capital Asset Project

Should this PWS element be required; the Contracting Office will issue a Task Order Request.

The DOE estimates a future need for disposal of approximately 3.7 million cubic yards of radioactively contaminated, non-radioactively contaminated, and hazardous material (soil and building debris), including sanitary waste through the end of deactivation and decommissioning of the PGDP. The majority of this waste will be disposed of outside of the period of performance of this Contract as it is currently associated with deactivation and decommissioning of the PGDP. Approximately 2,000 yd³ of these volumes are classified waste.

Table C.4.EM.PA.0040.A009.04.DR.02-1 Estimated Disposal Volume, by Waste Form, for Waste Disposition Options Project through 2040 in 1000YD ³								
Waste form	LLW	LLW/ RCRA	LLW/ RCRA/ TSCA	LLW/ TSCA	RCRA	TSCA	Sanitary	Total
Asbestos	4	1	25	0	0	4	1	35
Concrete	377	1	0	0	0	0	393	771

General Construction Debris	425	3	0	1	0	3	235	667
Other Dry Solids	46	1	5	1	1	1	4	59
Scrap Metal	408	1	0	0	0	4	69	482
Soil	1,286	29	1	0	16	2	376	1,710
Total	2,546	36	31	2	17	14	1,078	3,724
LLW = low-level waste RCRA = Resource Conservation and Recovery Act of 1976 TSCA = Toxic Substances Control Act of 1976, Public Law 94-469, October 11, 1976, 15 USC Section 2622 Source: DOE/LX/07-0035&D1, Scoping Document for CERCLA Waste Disposal Alternatives Evaluation Remedial Investigation/Feasibility Study at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, April 2008								

EM.PA.0040.A009.04.DR.02.01 OSWDF Cell 1 and Infrastructure

The Contractor shall assume responsibility for all ongoing activities for OSWDF approvals and design. This project is a Capital Asset Project and all Critical Decision processes shall be completed by the Contractor.

Consistent with the FFA schedules, the Contractor shall prepare regulatory documents including, but not limited to, CERCLA documentation required per the regulatory agreement(s). The Contractor shall develop the necessary CERCLA documentation, and develop the necessary subsequent work plans and supplemental documents under the agreed-upon CERCLA process.

In addition, the Contractor shall be responsible for developing and coordinating all regulatory documentation necessary to support other activities associated with the onsite waste disposal facility (e.g., sampling, monitoring, waste treatment, disposal, and storage) as defined in the Task Order. The Task Order will, at a minimum, include scope to revise the existing RI/FS to include updated information, which includes but is not limited to, Paducah-specific waste profiles for the process building and equipment, additional data obtained from the burial ground efforts, design features, and cost estimates for the various alternatives. This document will be issued as a D1 for regulatory reviews per the FFA. The task order may include other tasks associated with completion of all CERCLA documentations necessary for decision making and for design and operations of the OSWDF (e.g., Proposed Plan, Record of Decision, Remedial Design Work Plan/Remedial Design Support, Remedial Design Support Investigation, Remedial Design Report, Remedial Action Work Plan, O&M Plan, etc.). The Task Order may also include the development of Critical Decision Documents, DOE 435.1 required LFRG documents (e.g. performance assessment, annual reviews and composite analysis), and the necessary designs (consistent with the planned lifecycle waste projections) for OSWDF Cell 1.

Table C.3.EM.PA.0040.A009.04.DR.02.01-1 OSWDF Cell 1 and Infrastructure Milestones/Schedule	
Milestone	Date
Complete D1 RI/FS	Consistent with Exercise of Task Order
Complete remaining Task Order CERCLA Documentations	Consistent with Exercise of Task Order

EM.PA.0040.A009.04.DR.03 ⁹⁹Tc Removal

Should this PWS element be required; the Contracting Office will issue a Task Order Request.

Technetium-99 (⁹⁹Tc) is a high-yield fission product. Some ⁹⁹Tc accompanies uranium during reprocessing of spent reactor fuel and forms a gas during fluorination. Hence, recycled uranium is contaminated with ⁹⁹Tc. In the cascade, the relatively light ⁹⁹Tc moves toward the enrichment end. One of the concerns for the Paducah Deactivation and Decommissioning phase is the uncertainty of the actual levels of ⁹⁹Tc which will be encountered in the disposition of the process equipment. Considerable amounts of UF₆ were produced at Paducah from reactor return uranium. Estimates have been made that approximately 550 kilograms of ⁹⁹Tc were fed into the PGDP cascade as a contaminant in the UF₆ between 1953 and 1977 (Reference the Smith Report and the PGDP Mass Balance Report).

The typical trace levels of ⁹⁹Tc compounds in the operating GDP's is below the minimum detectable limit for any of the process gas analyzers. Consequently, it cannot be definitively stated which technetium compounds are present in the operational cascades. The only gas phase technetium compound that has been reported to have been detected in the cascade gas stream is the pertechnetyl fluoride, TcO₃F, which was detected in the purge cascade during treatments to unplug the barrier. The technetium compounds that should be considered as potential cascade vapor phase compounds would consist of TcO₃F, HTcO₄, TcOF₄, and TcF₆. The oxides Tc₂O₇, and TcO₂, could also possibly exist as condensed species, along with the liquid or solid pertechnetic acid, HTcO₄, and the oxyfluoride TcO₂F₃. (Reference the Simmons Report.)

Technetium hexafluoride (TcF₆), technetium oxide tetrafluoride (TcOF₄), technetium trioxide fluoride (TcO₃F), and technetium dioxide tri-fluoride (TcO₂F₃) have sufficient volatility to be in the cascade gas streams of an operating gaseous diffusion plant, but TcO₃F is the only compound of technetium to be identified. There are also non-volatile and less volatile compounds such as TcO₂ and HTcO₄, respectively. The formation of TcO₂ on steel surfaces is one effect which can retard the release of technetium. The volatile compound TcO₃F has been prepared from the non-volatile solid TcO₂ by use of fluorine at 300°F (degrees Fahrenheit). (Reference the Simmons Report.)

It has been demonstrated at the three former gaseous diffusion plants that technetium can be removed from the process surfaces by heating the metals to sufficient temperatures

(i.e., approximately 250 degrees Fahrenheit). The more volatile ^{99}Tc compounds have been removed to a certain extent from process equipment by heating the cell with the cell off stream and the compressors running using air to volatilize the technetium into the gas phase and trapping it using accepted methods standard to the diffusion process. However, due to the limitations of heating the process equipment while it was operating the heat was limited to approximately 250 degrees Fahrenheit and at this temperature complete removal of ^{99}Tc was not accomplished. The heated air is circulated through the converters by the compressors. The volatilized ^{99}Tc is then captured using cold traps, magnesium fluoride, or activated alumina. This technique has been done with moderate success at the GDPs to unplug cells and to prepare cells for maintenance thus reducing worker exposure to ^{99}Tc . This method has not been used with a goal of meeting the sites disposal Waste Acceptance Criteria (WAC). The final WAC's for Paducah and Portsmouth Plants have not officially been determined, however, the Oak Ridge Environmental Management Waste Management Facility (EMWMF) ^{99}Tc WAC is 172 pCi/g.

Should it be chosen for deposit removal, the use of ICT will not completely remove ^{99}Tc from the equipment. Therefore additional activities will be necessary to remove the ^{99}Tc in order to meet waste disposal limits. The ^{99}Tc limits are more restrictive than uranium due to the difference in mobility of the compounds of the two elements. The ultimate goal is to remove the technetium to sufficient levels that the remaining radioactive contamination is below the free release levels and/or meet the Paducah WAC once it is established. Graph and spreadsheets illustrate known ^{99}Tc concentrations by facility and unit and is provided in Exhibit C-3.

The Contractor shall characterize equipment, develop, select and implement an approach to remove ^{99}Tc from the converters in the process facilities (C-310, C-331, C-333, C-335, and C-337), including converters no longer connected to the process system and those stored on outside storage pads. The Contractor shall ensure the implemented technique provides the most cost effective approach for the lifecycle.

Table C.2. EM.PA.0040.A009.04.DR.03-1 ^{99}Tc Removal	
Milestone	Date
Complete ^{99}Tc Removal in the Four Process Facilities	Consistent with exercise of Task Order
Complete ^{99}Tc Removal in the Loose Converters Stored Outside the Process Facilities	Consistent with exercise of Task Order
Complete ^{99}Tc Removal in the C-310 Process Facility	Consistent with exercise of Task Order

EM.PA.0040.A009.04.DR.04 Construction of McCaw Road Bridge

Should this PWS element be required; the Contracting Office will issue a Task Order Request.

A two-lane, three-sided (bottomless) box culvert (rectangular opening) was constructed circa 1950 allowing McCaw Road to cross Little Bayou Creek, which is located in Paducah, Kentucky. This bridge was removed in early 2012 after an inspection and subsequent report recommended that it be replaced due to the state of disrepair and conclusion that the bridge was structurally deficient. After the bridge was removed, the Little Bayou Creek bank was fortified with riprap in the footprint of the removed bridge. The new bridge shall be constructed in the footprint of the previous bridge, reopening McCaw Road, and providing local emergency response vehicles/equipment with a shorter route to the Paducah Site thereby decreasing the emergency response time. The new bridge size and configuration shall be of similar size as the previous bridge, and the load rating capacity shall be sufficient to handle the fire and emergency response vehicles/equipment.

The McCaw Road Bridge is located on the Paducah Site property west of the county property line along McCaw Road. Neither the county nor the state have jurisdiction over this bridge. The U.S. Army Corps of Engineers (USACE) has jurisdiction over the Little Bayou Creek (waterway) and the permitting for this bridge. There are contaminated soils along the streambed. Radiological controls/procedures concerning working with, temporary stockpiling, reuse, and/or disposal of the contaminated soils will need to be identified and followed by the bridge contractor. The current Contractor is designing the replacement bridge.

The Contractor shall review the existing McCaw Road Bridge design, construct the McCaw Road Bridge spanning Little Bayou Creek, reestablish McCaw Road, erect guardrails and signage at the crossing, and place erosion/scour riprap. The Contractor shall ensure that all of the appropriate regulatory documents are in place and any outstanding regulatory issues have been addressed for the construction of the bridge. The Contractor shall issue as-built drawings of the bridge, road, and streambed within the project boundaries. The Contractor shall provide an as-constructed bridge rating.

Table C.2. EM.PA.0040.A009.04.DR.04-1 Construction of McCaw Road Bridge	
Milestone	Date
Complete Construction of McCaw Road Bridge	Consistent with exercise of Task Order

EM.PA.0040.A009.04.DR.05 Small Cylinder Disposition

Should this PWS element be required; the Contracting Office will issue a Task Order Request.

The Contractor shall disposition all small diameter (5 inch nominal diameter or less) UF₆ cylinders at PGDP that are no longer needed to support deactivation activities. The amount remaining at transition is estimated to be 1,500. This includes disposal of all secondary wastes. The Contractor is not required to recover the UF₆ in these cylinders.

Table C.2. EM.PA.0040.A009.04.DR.05-1 Small Cylinder Disposition	
Milestone	Date
Complete Disposition of Small Cylinders	Consistent with exercise of Task Order

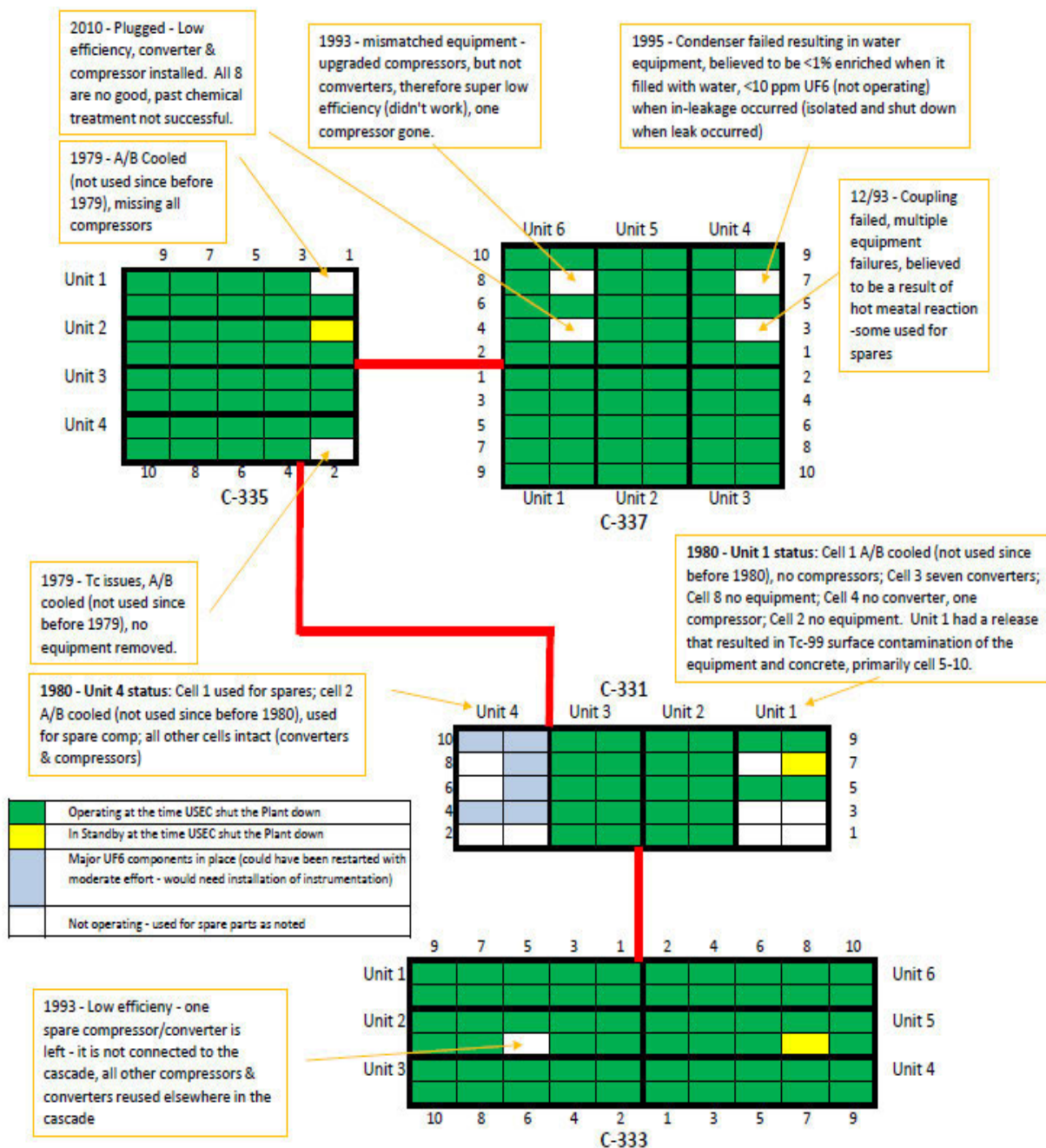
Exhibit No. C-1, PDGP Shutdown Cell Status to Support Deposit & Hold-up Removal

Exhibit No. C-2, C-400 Work Zone Map

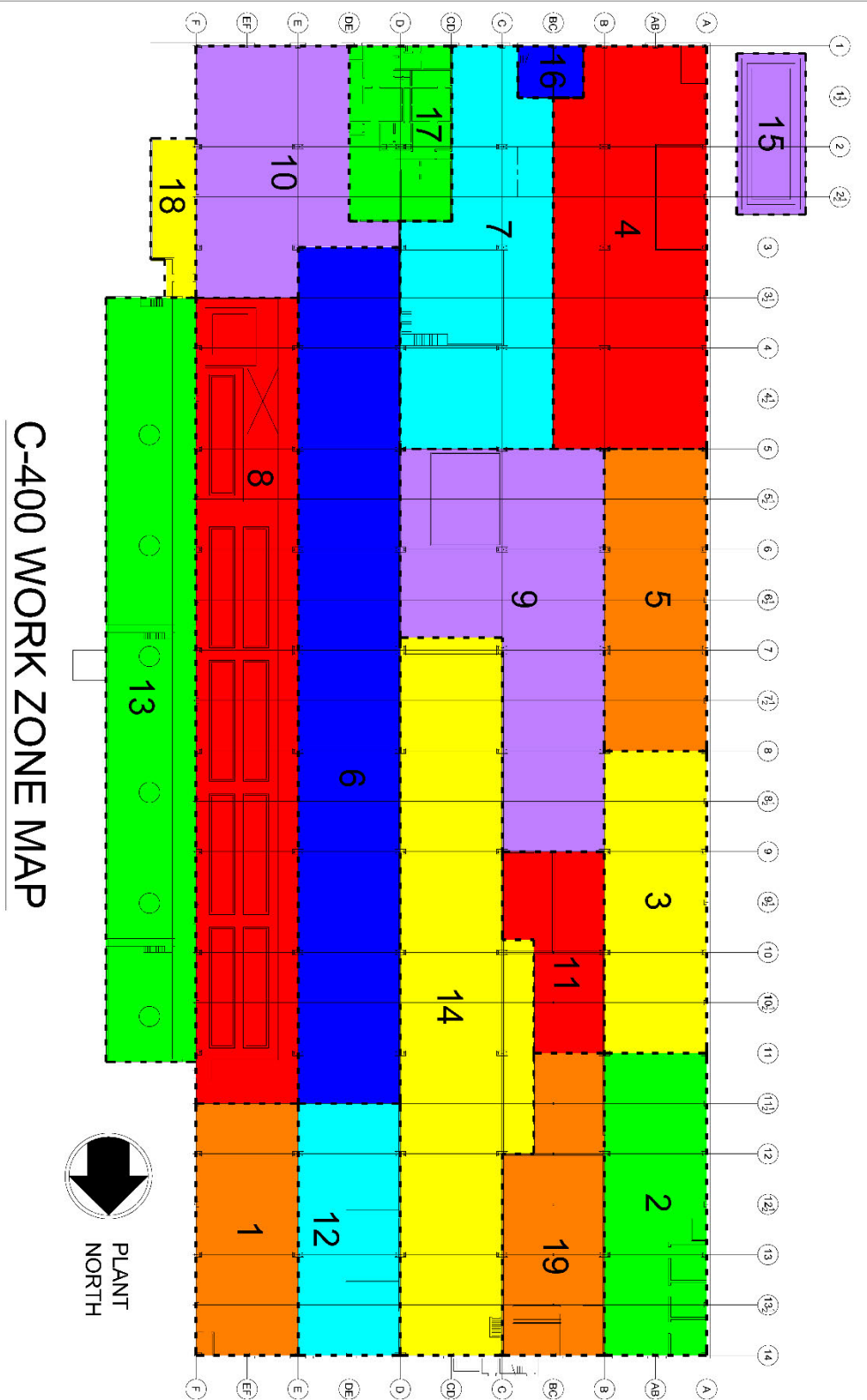


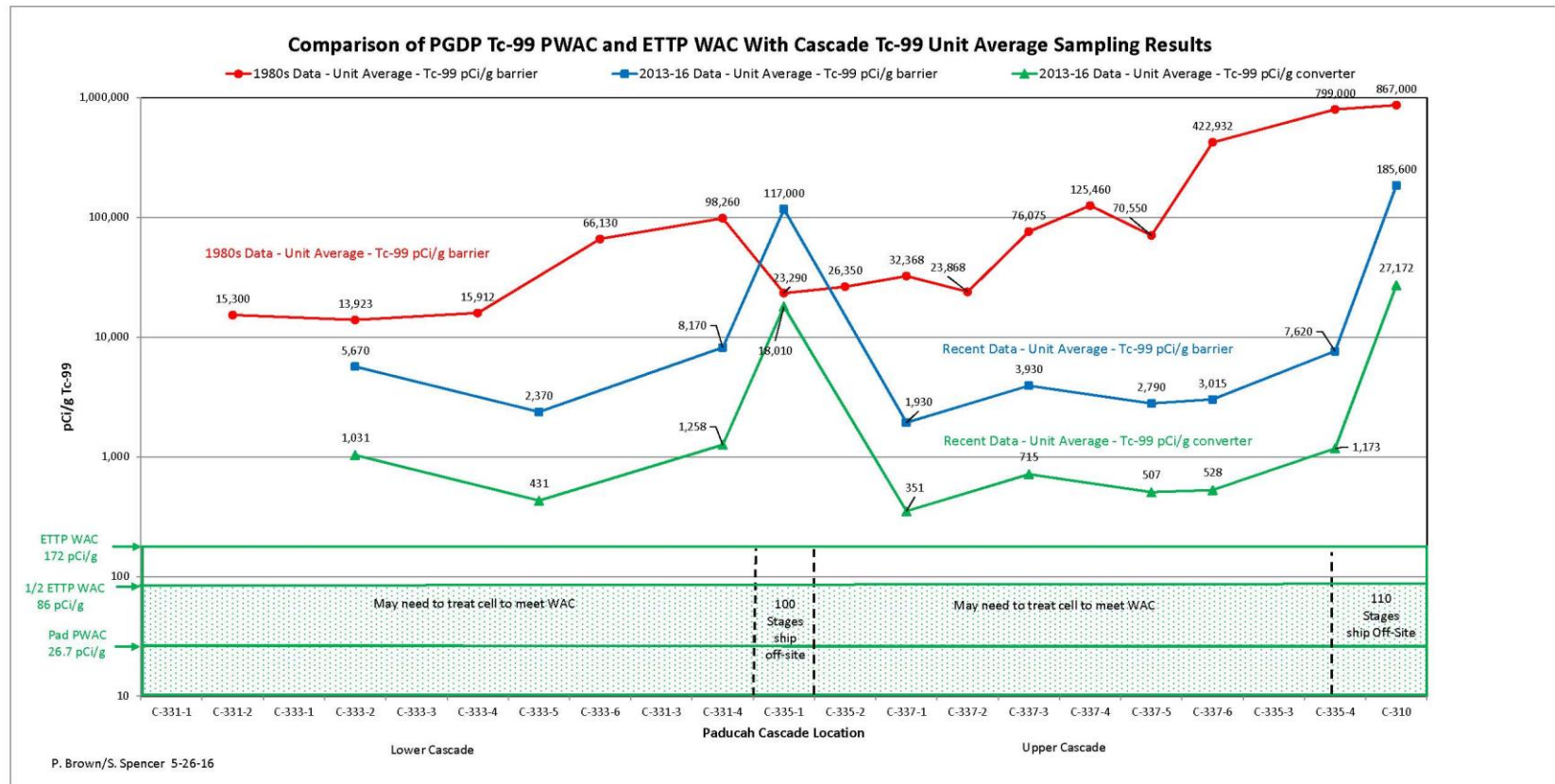
Exhibit No. C-3, Technetium Data

1980 Technetium Data

Location	Tc-99 (ppb)	Tc-99 (pCi/g)	Calculated Tc-99 (pCi/g)	Unit Avg. Tc-99 (pCi/g)
C-331-2.2	900	15,284	15,300	15,300
C-333-2.3	819	13,908	13,923	13,923
C-333-4.3.2	872		14,824	
C-333-4.7.7	1000		17,000	15,912
C-333-6.4.1	3,890		66,130	66,130
C-331-4.9	5780		98,260	98,260
C-335-1.1	1,370	23,286	23,290	23,290
C-335-2.1	1,500		25,500	
C-335-2.8	1,600		27,200	26,350
C-337-1.5	1,480		25,160	
C-337-1.7	977	4,398	16,609	32,368
C-337-1.9	4,900		83,300	
C-337-1.10.3	259		4,403	
C-337-2.3	2,400		40,800	
C-337-2.5.1	1,350	22,025	22,950	23,868
C-337-2.7.2	1,200	20,378	20,400	
C-337-2.7	1,460	24,794	24,820	
C-337-2.2	610	10,359	10,370	
C-337-3.8	2,200		37,400	
C-337-3.6	6,750		114,750	76,075
C-337-4.10	15,100	256,427	256,700	
C-337-4.6.1	3,700		62,900	125,460
C-337-4.4	3,720		63,240	
C-337-4.2	7,000		119,000	
C-337-5.1	4,150		70,550	70,550
C-337-6.7	19,270		327,590	
C-337-6.10	18,340	436,437	311,780	422,932
C-337-6.8.8	25,700		436,900	
C-337-6.8	26,660	452,740	453,220	
C-337-6.6	25,200		428,400	
C-337-6.2	34,100		579,700	
C-335-4.6	47,000		799,000	799,000
C-310 average	51,000		867,000	867,000

2013/2014 Technetium Data

Tc-99 2013/2014 Barrier Sample Results From C-310, C-331, C-335, and C-337					
Customer Sample ID	Paducah LIMS #	Location	Concentration Tc-99 (pCi/g)	Unit Avg - Tc-99 pCi/g Barrier	Unit Avg - Tc-99 pCi/g Converter
C-00758	C14181010001	C-331 Unit 4 Cell 3	6,160		
13041501	C13254002001	C-331 Unit 4 Cell 6	7,600		
C-00662	C14147005001	C-331 Unit 4 Cell 6	1,520		
C-00575	C14181011001	C-331 Unit 4 Cell 9	17,400	8,170	1,258
C-713	C14147004001	C-335 Unit 1 Cell 6	117,000	117,000	18,010
C-15207	C14147003001	C-337 Unit 1 Cell 6	1,930	1,930	351
C-15088	C14147007001	C-337 Unit 3 Cell 1	3,930	3,930	715
C-15485	C14147006001	C-337 Unit 5 Cell 3	2,790	2,790	507
13020401	C13035028001	C-337 Unit 6 Cell 3 Sample 1	2,140		
13020402	C13035030001	C-337 Unit 6 Cell 3 Sample 2	3,890	3,015	548
C-20096	C14147001001	C-335 Unit 4 Cell 1	10,200		
C-759	C14147002001	C-335 Unit 4 Cell 7	5,040	7,620	1,173
SP-1307	C12311014001	C-310 Cell 7 Sample 1	55,400		
SP-1308	C12311014002	C-310 Cell 7 Sample 2	191,000		
SP-1309	C12311014003	C-310 Cell 7 Sample 3	175,000		
SP-1310	C12311014004	C-310 Cell 7 Sample 4	321,000	185,600	27,172



PART I – THE SCHEDULE

SECTION D

PACKAGING AND MARKING

TABLE OF CONTENTS

D.1	DOE-D-2001 PACKAGING AND MARKING (OCT 2014).....	2
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D.1 DOE-D-2001 PACKAGING AND MARKING (OCT 2014)

- (a) Preservation, packaging and packing for shipment or mailing of all work delivered hereunder shall be in accordance with good commercial practice and adequate to insure acceptance by common carrier and safe transportation at the most economical rate(s), including electronic means.
- (b) Each package, report or other deliverable shall be accompanied by a letter or other document which –
 - (1) Identifies the contract by number pursuant to which the item is being delivered;
 - (2) Identifies the deliverable item number or report requirement which requires the delivered item; and
 - (3) Indicates whether the Contractor considers the delivered item to be a partial or full satisfaction of the requirement.
- (c) For any package, report, or other deliverable being delivered to a party other than the Contracting Officer, a copy of the document required by paragraph (b) shall be simultaneously delivered to the office administering this contract, as identified in Section G of the contract, or if none, to the Contracting Officer.

PART I – THE SCHEDULE

SECTION E

INSPECTION AND ACCEPTANCE

TABLE OF CONTENTS

E.1	FAR 52.246-3, INSPECTION OF SUPPLIES – COST-REIMBURSEMENT (MAY 2001).....	2
E.2	FAR 52.246-5, INSPECTION OF SERVICES – COST REIMBURSEMENT (APR 1984)	4
E.3	FAR 52.246-11, HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT (DEC 2014).....	4
E.4	DOE-E-2001, INSPECTION AND ACCEPTANCE (OCT 2014).....	5
E.5	FAR 52.246-2, INSPECTION OF SUPPLIES – FIXED-PRICE (AUG 1996).....	5
E.6	FAR 52.246-4, INSPECTION OF SERVICES – FIXED-PRICE (AUG 1996).....	8
E.7	FAR 52.246-16, RESPONSIBILITY FOR SUPPLIES (APR 1984).....	9

**E.1 FAR 52.246-3, INSPECTION OF SUPPLIES – COST-REIMBURSEMENT
(MAY 2001)**

(a) *Definitions.* As used in this Clause—

“Contractor’s managerial personnel” means any of the Contractor’s directors, officers, managers, superintendents, or equivalent representatives who have supervision or direction of—

- (1) All or substantially all of the Contractor’s business;
- (2) All or substantially all of the Contractor’s operation at a plant or separate location where the contract is being performed; or
- (3) A separate and complete major industrial operation connected with performing this contract.

“Supplies” includes but is not limited to raw materials, components, intermediate assemblies, end products, lots of supplies, and, when the contract does not include the Warranty of Data clause, data.

- (b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the supplies, fabricating methods, and special tooling under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.
- (c) The Government has the right to inspect and test the contract supplies, to the extent practicable at all places and times, including the period of manufacture, and in any event before acceptance. The Government may also inspect the plant or plants of the Contractor or any subcontractor engaged in the contract performance. The Government shall perform inspections and tests in a manner that will not unduly delay the work.
- (d) If the Government performs inspection or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.
- (e) Unless otherwise specified in the Contract, the Government shall accept supplies as promptly as practicable after delivery, and supplies shall be deemed accepted 60 days after delivery, unless accepted earlier.
- (f) At any time during contract performance, but no later than 6 months (or such other time as may be specified in the contract) after acceptance of the supplies to be delivered under the contract, the Government may require the Contractor to replace or

correct any supplies that are nonconforming at time of delivery. Supplies are nonconforming when they are defective in material or workmanship or are otherwise not in conformity with contract requirements. Except as otherwise provided in paragraph (h) of this clause, the cost of replacement or correction shall be included in allowable cost, determined as provided in the Allowable Cost and Payment clause, but no additional fee shall be paid. The Contractor shall not tender for acceptance supplies required to be replaced or corrected without disclosing the former requirement for replacement or correction, and, when required, shall disclose the corrective action taken.

- (g) (1) If the Contractor fails to proceed with reasonable promptness to perform required replacement or correction, the Government may—
 - (i) By contract or otherwise, perform the replacement or correction and charge to the Contractor any increased cost or make an equitable reduction in any fixed fee paid or payable under the contract;
 - (ii) Require delivery of undelivered supplies at an equitable reduction in any fixed fee paid or payable under the contract; or
 - (iii) Terminate the contract for default.
- (2) Failure to agree on the amount of increased cost to be charged to the Contractor or to the reduction in the fixed fee shall be a dispute.
- (h) Notwithstanding paragraphs (f) and (g) of this clause, the Government may at any time require the Contractor to correct or replace, without cost to the Government, nonconforming supplies, if the non-conformances are due to—
 - (1) Fraud, lack of good faith, or willful misconduct on the part of the Contractor's managerial personnel; or
 - (2) The conduct of one or more of the Contractor's employees selected or retained by the Contractor after any of the Contractor's managerial personnel has reasonable grounds to believe that the employee is habitually careless or unqualified.
- (i) This clause applies in the same manner to corrected or replacement supplies as to supplies originally delivered.
- (j) The Contractor shall have no obligation or liability under this contract to replace supplies that were nonconforming at the time of delivery, except as provided in this clause or as may be otherwise provided in the contract.
- (k) Except as otherwise specified in the contract, the Contractor's obligation to correct or replace Government-furnished property shall be governed by the clause pertaining to Government property.

**E.2 FAR 52.246-5, INSPECTION OF SERVICES – COST REIMBURSEMENT
(APR 1984)**

- (a) *Definition.* "Services," as used in this clause, includes services performed, workmanship, and material furnished or used in performing services.
- (b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this Contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the Contract requires.
- (c) The Government has the right to inspect and test all services called for by the Contract, to the extent practicable at all places and times during the term of the Contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.
- (d) If any of the services performed do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, for no additional fee. When the defects in services cannot be corrected by re-performance, the Government may:
 - (1) Require the Contractor to take necessary action to ensure that future performance conforms to contract requirements; and
 - (2) Reduce any fee payable under the Contract to reflect the reduced value of the services performed.
- (e) If the Contractor fails to promptly perform the services again or take the action necessary to ensure future performance in conformity with contract requirements, the Government may:
 - (1) By contract or otherwise, perform the services and reduce any fee payable by an amount that is equitable under the circumstances; or
 - (2) Terminate the Contract for default.

**E.3 FAR 52.246-11, HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT
(DEC 2014)**

- (a) The Contractor shall comply with the higher-level quality standard(s) listed below.

Quality Assurance Program (based on American Society of Mechanical Engineers (ASME) publication NQA-1 2008, Quality Assurance Requirements for Nuclear Facility Applications

EM-QA-001/R1 EM Quality Assurance Program and DOE O 414.1D, Quality Assurance

- (b) The Contractor shall include applicable requirements of the higher-level quality standard(s) listed in paragraph (a) of this clause and the requirement to flow down such standards, as applicable, to lower-tier subcontracts, in—
 - (1) Any subcontract for critical and complex items (see 46.203(b) and (c)); or
 - (2) When the technical requirements of a subcontract require—
 - (i) Control of such things as design, work operations, in-process control, testing, and inspection; or
 - (ii) Attention to such factors as organization, planning, work instruction, documentation control, and advanced metrology.

E.4 DOE-E-2001, INSPECTION AND ACCEPTANCE (OCT 2014)

Inspection and acceptance of all items under this contract shall be accomplished by the Contracting Officer in accordance with the clause entitled FAR 52.246-3, INSPECTION OF SUPPLIES – COST-REIMBURSEMENT (MAY 2001) and FAR 52.246-5, INSPECTION OF SERVICES – COST REIMBURSEMENT (APR 1984). If the Contracting Officer assigns this responsibility to the Contracting Officer's Representative or another representative of the Government, the Contracting Officer shall notify the Contractor in writing.

THE FOLLOWING CLAUSES APPLY ONLY TO FIXED-PRICE TASK ORDERS ISSUED UNDER THE IDIQ CLIN:

E.5 FAR 52.246-2, INSPECTION OF SUPPLIES – FIXED-PRICE (AUG 1996)

- (a) Definition. "Supplies," as used in this clause, includes but is not limited to raw materials, components, intermediate assemblies, end products, and lots of supplies.
- (b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering supplies under this contract and shall tender to the Government for acceptance only supplies that have been inspected in accordance with the inspection system and have been found by the Contractor to be in conformity with contract requirements. As part of the system, the Contractor shall prepare records evidencing all inspections made under the system and the outcome. These records shall be kept complete and made available to the Government during contract performance and for as long afterwards as the contract requires. The Government may perform reviews and

evaluations as reasonably necessary to ascertain compliance with this paragraph. These reviews and evaluations shall be conducted in a manner that will not unduly delay the contract work. The right of review, whether exercised or not, does not relieve the Contractor of the obligations under the contract.

(c) The Government has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The Government shall perform inspections and tests in a manner that will not unduly delay the work. The Government assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in this contract.

(d) If the Government performs inspection or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the contract, the Government shall bear the expense of Government inspections or tests made at other than the Contractor's or subcontractor's premises; provided, that in case of rejection, the Government shall not be liable for any reduction in the value of inspection or test samples.

(e)

(1) When supplies are not ready at the time specified by the Contractor for inspection or test, the Contracting Officer may charge to the Contractor the additional cost of inspection or test.

(2) The Contracting Officer may also charge the Contractor for any additional cost of inspection or test when prior rejection makes reinspection or retest necessary.

(f) The Government has the right either to reject or to require correction of nonconforming supplies. Supplies are nonconforming when they are defective in material or workmanship or are otherwise not in conformity with contract requirements. The Government may reject nonconforming supplies with or without disposition instructions.

(g) The Contractor shall remove supplies rejected or required to be corrected. However, the Contracting Officer may require or permit correction in place, promptly after notice, by and at the expense of the Contractor. The Contractor shall not tender for acceptance corrected or rejected supplies without disclosing the former rejection or requirement for correction, and, when required, shall disclose the corrective action taken.

(h) If the Contractor fails to promptly remove, replace, or correct rejected supplies that are required to be removed or to be replaced or corrected, the Government may either

(1) by contract or otherwise, remove, replace, or correct the supplies and charge the cost to the Contractor or

(2) terminate the contract for default.

Unless the Contractor corrects or replaces the supplies within the delivery schedule, the Contracting Officer may require their delivery and make an equitable price reduction. Failure to agree to a price reduction shall be a dispute.

(i)

(1) If this contract provides for the performance of Government quality assurance at source, and if requested by the Government, the Contractor shall furnish advance notification of the time --

(i) When Contractor inspection or tests will be performed in accordance with the terms and conditions of the contract; and

(ii) When the supplies will be ready for Government inspection.

(2) The Government's request shall specify the period and method of the advance notification and the Government representative to whom it shall be furnished. Requests shall not require more than 2 workdays of advance notification if the Government representative is in residence in the Contractor's plant, nor more than 7 workdays in other instances.

(j) The Government shall accept or reject supplies as promptly as practicable after delivery, unless otherwise provided in the contract. Government failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability on the Government, for nonconforming supplies.

(k) Inspections and tests by the Government do not relieve the Contractor of responsibility for defects or other failures to meet contract requirements discovered before acceptance. Acceptance shall be conclusive, except for latent defects, fraud, gross mistakes amounting to fraud, or as otherwise provided in the contract.

(l) If acceptance is not conclusive for any of the reasons in paragraph (k) hereof, the Government, in addition to any other rights and remedies provided by law, or under other provisions of this contract, shall have the right to require the Contractor

(1) at no increase in contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or at the Contractor's plant at the Contracting Officer's election, and in accordance with a reasonable delivery schedule as may be agreed upon between the Contractor and the Contracting Officer; provided, that the Contracting Officer may require a reduction in contract price if the Contractor fails to meet such delivery schedule, or

(2) within a reasonable time after receipt by the Contractor of notice of defects or nonconformance, to repay such portion of the contract as is equitable under the circumstances if the Contracting Officer elects not to require correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the transportation cost from the original point of delivery to the Contractor's plant and return to the original point when that point is not the Contractor's plant. If the Contractor fails to perform or act as required in (1) or (2) above and does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure, the Government shall have the right by contract or otherwise to replace or correct such supplies and charge to the Contractor the cost occasioned the Government thereby.

E.6 FAR 52.246-4, INSPECTION OF SERVICES – FIXED-PRICE (AUG 1996)

(a) Definition: "Services," as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If the Government performs inspections or tests on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties.

(e) If any of the services do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by reperformance, the Government may --

(1) Require the Contractor to take necessary action to ensure that future performance conforms to contract requirements; and

(2) Reduce the contract price to reflect the reduced value of the services performed.

(f) If the Contractor fails to promptly perform the services again or to take the necessary action to ensure future performance in conformity with contract requirements, the Government may --

(1) By contract or otherwise, perform the services and charge to the Contractor any cost incurred by the Government that is directly related to the performance of such service; or

(2) Terminate the contract for default.

E.7 FAR 52.246-16, RESPONSIBILITY FOR SUPPLIES (APR 1984)

(a) Title to supplies furnished under this contract shall pass to the Government upon formal acceptance, regardless of when or where the Government takes physical possession, unless the contract specifically provides for earlier passage of title.

(b) Unless the contract specifically provides otherwise, risk of loss of or damage to supplies shall remain with the Contractor until, and shall pass to the Government upon --

(1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or

(2) Acceptance by the Government or delivery of the supplies to the Government at the destination specified in the contract, whichever is later, if transportation is f.o.b. destination.

(c) Paragraph (b) of this section shall not apply to supplies that so fail to conform to contract requirements as to give a right of rejection. The risk of loss of or damage to such nonconforming supplies remains with the Contractor until cure or acceptance. After cure or acceptance, paragraph (b) of this section shall apply.

(d) Under paragraph (b) of this section, the Contractor shall not be liable for loss of or damage to supplies caused by the negligence of officers, agents, or employees of the Government acting within the scope of their employment.

PART I – THE SCHEDULE

SECTION F

DELIVERIES OR PERFORMANCE

TABLE OF CONTENTS

F.1	FAR 52.242-15, STOP-WORK ORDER (AUG 1989) – ALTERNATE I (APR 1984) <i>BASIC CLAUSE WITHOUT ALTERNATE I APPLIES TO FIRM-FIXED-PRICE TASK ORDERS ISSUED UNDER THE IDIQ CLIN.</i>	2
F.2	DOE-F-2002, PLACE OF PERFORMANCE - SERVICES (OCT 2014).....	3
F.3	DOE-F-2003, PERIOD OF PERFORMANCE – ALTERNATE I AND ALTERNATE II (OCT 2014).....	3
F.4	FAR 52.242-17, GOVERNMENT DELAY OF WORK (APR 1984) <i>APPLIES TO FIRM-FIXED-PRICE TASK ORDERS ISSUED UNDER THE IDIQ CLIN.</i>	3

**F.1 FAR 52.242-15, STOP-WORK ORDER (AUG 1989) – ALTERNATE I (APR 1984)
*BASIC CLAUSE WITHOUT ALTERNATE I APPLIES TO FIRM-FIXED-PRICE
TASK ORDERS ISSUED UNDER THE IDIQ CLIN.***

- (a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either -
 - (1) Cancel the stop-work order; or
 - (2) Terminate the work covered by the order as provided in the Termination clause of this contract.
- (b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if -
 - (1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
 - (2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.
- (c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- (d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

F.2 DOE-F-2002, PLACE OF PERFORMANCE - SERVICES (OCT 2014)

The services specified by this contract shall be performed at the following location(s):

United States Department of Energy
Paducah Gaseous Diffusion Plant
5600 Hobbs Road
Kevil, KY 42053

F.3 DOE-F-2003, PERIOD OF PERFORMANCE – ALTERNATE I AND ALTERNATE II (OCT 2014)

(a) The Contractor shall commence performance of this contract in accordance with the contract terms and conditions on **June 20th, 2017 through June 19th, 2022**.

(b) The period of performance of this contract may be extended pursuant to unilateral options or other clauses that provide for the extension of the contract. In the event that the Government elects to exercise its right pursuant to such options(s) or other clauses, the period of performance shall be revised to reflect such extensions. The period of performance does not include the option to extend services per FAR 52.217-8.

Periods of Performance (POP)		
Period	Start	End
Base POP (60 months) ¹	06/20/17	06/19/22
Option 1 POP (36 months)	06/20/22	06/19/25
Option 2 POP (24 months)	06/20/25	06/19/27

¹ The Base POP includes the 121 day transition.

IDIQ CLINs		
CLIN	CLIN Title	Estimated Period of Performance ¹
0401	EM.PA.0040.A009.04.DR.01, and/or EM.PA.0040.A009.04.DR.02, and/or EM.PA.0040.A009.04.DR.03, and/or EM.PA.0040.A009.04.DR.04, and/or EM.PA.0040.A009.04.DR.05, and/or any other PWS Section, as necessary	03/23/17- 03/22/27 ¹

¹ Initially, the IDIQ CLIN ordering period is consistent with the period of performance for the Base Period of 60 months and will be extended commensurate with the exercise of Option Periods 1 and 2 (if exercised).

F.4 FAR 52.242-17, GOVERNMENT DELAY OF WORK (APR 1984) APPLIES TO

FIRM-FIXED-PRICE TASK ORDERS ISSUED UNDER THE IDIQ CLIN.

(a) If the performance of all or any part of the work of this contract is delayed or interrupted

(1) by an act of the Contracting Officer in the administration of this contract that is not expressly or impliedly authorized by this contract, or

(2) by a failure of the Contracting Officer to act within the time specified in this contract, or within a reasonable time if not specified, an adjustment (excluding profit) shall be made for any increase in the cost of performance of this contract caused by the delay or interruption and the contract shall be modified in writing accordingly. Adjustment shall also be made in the delivery or performance dates and any other contractual term or condition affected by the delay or interruption. However, no adjustment shall be made under this clause for any delay or interruption to the extent that performance would have been delayed or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an adjustment is provided or excluded under any other term or condition of this contract.

(b) A claim under this clause shall not be allowed --

(1) For any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved; and

(2) Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the delay or interruption, but not later than the day of final payment under the contract.

SECTION G
CONTRACT ADMINISTRATION DATA
TABLE OF CONTENTS

G.1	DOE-G-2001 CONTRACTING OFFICER AUTHORITY (OCT 2014).....	2
G.2	DOE-G-2002 CONTRACTING OFFICER’S REPRESENTATIVE (OCT 2014)	2
G.3	DOE-G-2003 CONTRACTOR’S PROGRAM MANAGER (OCT 2014)	2
G.4	DOE-G-2004 CONTRACT ADMINISTRATION (OCT 2014)	2
G.5	DOE-G-2005 BILLING INSTRUCTIONS (OCT 2014) (<i>Applies to Firm-Fixed Price Task Orders only</i>)	4
G.6	DOE-G-2005 BILLING INSTRUCTIONS – ALTERNATE I (OCT 2014) (DEVIATION)	5
G.7	DOE-G-2007 CONTRACTOR PERFORMANCE ASSESSMENT REPORTING (OCT 2014) (DEVIATION)	6
G.8	DOE-G-2008 NON-SUPERVISION OF CONTRACTOR EMPLOYEES (OCT 2014) ...	7

G.1 DOE-G-2001 CONTRACTING OFFICER AUTHORITY (OCT 2014)

The Contracting Officer is responsible for administration of the contract. The Contracting Officer may appoint a Contracting Officer's Representative (COR), in accordance with the clause entitled Contracting Officer's Representative, to perform specifically delegated functions. The Contracting Officer is the only individual who has the authority on behalf of the Government, among other things, to take the following actions under the contract:

- (a) Assign additional work within the general scope of the contract.
- (b) Issue a change in accordance with the clause entitled Changes.
- (c) Change the cost or price of the contract.
- (d) Change any of the terms, conditions, specifications, or services required by the contract.
- (e) Accept non-conforming work.
- (f) Waive any requirement of the contract.

G.2 DOE-G-2002 CONTRACTING OFFICER'S REPRESENTATIVE (OCT 2014)

Pursuant to the clause at DEAR 952.242-70, Technical Direction, the Contracting Officer shall designate in writing a Contracting Officer's Representative (COR) for this contract, and provide a copy of such designation to the contractor, including the delegated responsibilities and functions. The COR does not have authority to perform those functions reserved exclusively for the Contracting Officer.

G.3 DOE-G-2003 CONTRACTOR'S PROGRAM MANAGER (OCT 2014)

- (a) The Contractor shall designate a Program Manager who will be the Contractor's authorized supervisor for technical and administrative performance of all work hereunder. The Program Manager shall be the primary point of contact between the Contractor and the Contracting Officer's Representative (COR) under this contract.
- (b) The Program Manager shall receive and execute, on behalf of the Contractor, such technical directions as the COR may issue within the terms and conditions of the contract.

G.4 DOE-G-2004 CONTRACT ADMINISTRATION (OCT 2014)

To promote timely and effective contract administration, correspondence delivered to the Government under this contract shall reference the contract number, title, and subject matter, and shall be subject to the following procedures:

- (a) Technical correspondence. Technical correspondence shall be addressed to the Contracting Officer's Representative (COR) for this contract, and a copy of any such

correspondence shall be sent to the DOE Contracting Officer. As used herein, technical correspondence does not include correspondence where patent or rights in data issues are involved, nor technical correspondence which proposes or involves waivers, deviations, or modifications to the requirements, terms or conditions of this contract.

(b) Other Correspondence.

- (1) Correspondence regarding patent or rights in data issues should be sent to the Intellectual Property Counsel. A copy of such correspondence shall be provided to the CO.
- (2) If no Government Contract Administration Office is designated on Standard Form 33 (Block 24)), all correspondence, other than technical correspondence and correspondence regarding patent of rights in data, including correspondence regarding waivers, deviations, or modifications to requirements, terms or conditions of the contract, shall be addressed to the CO. Copies of all such correspondence shall be provided to the COR.
- (3) Where a Government Contract Administration Office, other than DOE, is designated on either Standard Form 33 (Block 24), or Standard Form 26 (Block 6), of this contract, all correspondence, other than technical correspondence, shall be addressed to the Government Contract Administration Office so designated, with copies of the correspondence to the CO and the COR.

(c) Information regarding correspondence addresses and contact information is as follows:

- (1) Contract Specialist:
 - (A) U.S. Department of Energy
Office of Environmental Management - Portsmouth/Paducah Project Office
Attn: Dan Lillard
 - (B) Telephone number: 270-441-6854
 - (C) Address:
Portsmouth/Paducah Project Office
Paducah Site, 5501 Hobbs Road
Kevil, KY 42053
 - (D) Email address: Daniel.lillard@lex.doe.gov
- (2) Administrative Contracting Officer
 - (A) U.S. Department of Energy
Office of Environmental Management - Portsmouth/Paducah Project Office
Attn: Marcia Fultz
 - (B) Telephone number: 859-219-4044
 - (C) Address:
Portsmouth/Paducah Project Office

1017 Majestic Drive, Suite 200
Lexington, KY 40513
(D) Email address: Marcia.Fultz@lex.doe.gov

(3) Contracting Officer's Representative

(A) U.S. Department of Energy
Portsmouth/Paducah Project Office
Attn: Jennifer Woodard

(B) Telephone number: 270-441-6820

(C) Address:
Portsmouth/Paducah Project Office
Paducah Gaseous Diffusion Plant
5501 Hobbs Road
Kevil, KY 42053

(D) Email address: Jennifer.Woodard@lex.doe.gov

(4) Intellectual Property Counsel

(A) Integrated Service Center (ISC) Chicago Office acting through the Intellectual
Property Law Division of the Office of Chief Counsel

(B) Telephone number: (630) 252-2308

(C) Address: Department of Energy
9800 S. Cass Ave.
Argonne, IL 60439

(D) Email address: TBD

(5) Government Contract Administration Office

(A) U.S. Department of Energy
Portsmouth/Paducah Project Office
Attn: Robert Swett

(B) Telephone number: 859-219-4038

(C) Mailing address:
Portsmouth/Paducah Project Office
1017 Majestic Drive, Suite 200
Lexington, KY 40513

(D) Email address: Robert.Swett@lex.doe.gov

G.5 DOE-G-2005 BILLING INSTRUCTIONS (OCT 2014) (*Applies to Firm-Fixed Price Task Orders only*)

- (a) Contractors shall use Standard Form 1034, Public Voucher for Purchases and Services Other than Personal, when requesting payment for work performed under the contract.
- (b) Contractors shall submit vouchers electronically through the Oak Ridge Financial Service Center's (ORFSC) Vendor Inquiry Payment Electronic Reporting System (VIPERS). VIPERS allows vendors to submit vouchers, attach supporting

documentation and check the payment status of any voucher submitted to the DOE. Instructions concerning contractor enrollment and use of VIPERS can be found at <https://vipers.doe.gov>.

- (c) A paper copy of a voucher that has been submitted electronically will not be accepted.

G.6 DOE-G-2005 BILLING INSTRUCTIONS – ALTERNATE I (OCT 2014) (DEVIATION)

- (a) Contractors shall use Standard Form 1034, Public Voucher for Purchases and Services Other than Personal, when requesting payment for work performed under the contract. Vouchers for payment shall be submitted timely in accordance with FAR 52.216-7(a)(1), except for earned fee payments which will be invoiced when earned and provisional fee which will be invoiced quarterly. All invoices shall be supported by a billing schedule summarized by funding source.
- (b) Contractors shall submit vouchers electronically through the Oak Ridge Financial Service Center's (ORFSC) Vendor Inquiry Payment Electronic Reporting System (VIPERS). VIPERS allows vendors to submit vouchers, attach supporting documentation and check the payment status of any voucher submitted to the DOE. Instructions concerning contractor enrollment and use of VIPERS can be found at <https://vipers.doe.gov>.
- (c) A paper copy of a voucher that has been submitted electronically will not be accepted.
- (d) The voucher must include a statement of cost and supporting documentation for services rendered. This statement should include, as a minimum, a breakout by cost or price element and task order (if applicable) of all services actually provided by the Contractor, both for the current billing period and cumulatively for the entire contract.
 - (1) Statement of Cost. The Contractor shall prepare and submit a Statement of Cost with each voucher in accordance with the following:
 - (A) Statement of Cost must be completed in accordance with the Contractor's cost accounting system.
 - (B) Costs claimed must be only those recorded costs authorized for billing by the payment provisions of the contract.
 - (C) Indirect costs claimed must reflect the rates approved for billing purposes by the Contracting Officer.

- (D) The Direct Productive Labor Hours (DPLH) incurred during the current billing period must be shown and the DPLH summary completed, if applicable.
 - (E) The total fee billed, retainage amount, and available fee must be shown.
 - (F) If task orders or task assignments are issued under this contract, the Contractor must prepare a Statement of Cost for each task order work assignment and a summary for the total invoiced cost.
- (2) The Contractor shall prepare and submit the supporting documentation with each voucher in accordance with the following:
- (A) Direct costs (e.g., labor, equipment, travel, supplies, etc.) claimed for reimbursement on the Statement of Cost must be adequately supported. The level of detail provided must clearly indicate where the funds were expended. For example, support for labor costs must include the labor category (e.g., program manager, senior engineer, technician, etc.), the hourly rate, the labor cost per category, and any claimed overtime; equipment costs must be supported by a list of the equipment purchased, along with the item's cost; supporting data for travel must include the destination of the trip, number and labor category of travelers, transportation costs, per diem costs, and purpose of the trip; and supplies should be categorized by the nature of the items (e.g., office, lab, computer, etc.) and the dollar amount per category.
 - (B) Any cost sharing or in-kind contributions incurred by the Contractor and/or third party during the billing period must be included.
 - (C) Indirect rates used for billings must be clearly indicated, as well as their basis of application. When the cognizant Administrative Contracting Officer (ACO) or auditor approves a change in the billing rates, include a copy of the approval.
 - (D) All claimed subcontractor costs must be supported by submitting the same detail as outlined herein.

G.7 DOE-G-2007 CONTRACTOR PERFORMANCE ASSESSMENT REPORTING (OCT 2014) (DEVIATION)

- (a) The Contracting Officer will document the Contractor's performance under this contract (including any task orders placed against it, if applicable) by using the Contractor Performance Assessment Reporting System (CPARS). CPARS information is handled as "Source Selection Information." Performance assessments entered into CPARS by the Contracting Officer are transmitted to the Past Performance Information Retrieval System (PPIRS) which is maintained by the Department of Defense (DoD). Information in PPIRS is available to authorized

Government personnel seeking past performance information when evaluating proposals for award.

- (b) Contractor performance will be evaluated at least annually at the contract or task order level, as determined by the Contracting Officer. Evaluation categories may include any or all of the following at the Government's discretion: (1) quality, (2) schedule, (3) business relations, (4) business management/key personnel, and (5) cost/price. PPIRS information is available at <http://www.ppirs.gov>, and CPARS information is available at <http://www.cpars.gov>. It is recommended that the Contractor take the overview training that can be found on the CPARS website. The Contractor shall adhere to the process and associated timeline found in the User Manual for Contractor Performance Assessment Reporting System (CPARS) respond to such requests within fourteen (14) calendar days of the request.
- (c) Joint Ventures. Performance assessments shall be prepared on contracts with joint ventures. When the joint venture has a unique Commercial and Government Entity (CAGE) code and Data Universal Numbering System (DUNS) number, a single assessment will be prepared for the joint venture using its CAGE code and DUNS number. If the joint venture does not have a unique CAGE code and DUNS number, separate assessments, containing identical narrative, will be prepared for each participating contractor and will state that the evaluation is based on performance under a joint venture and will identify the contractors that were part of the joint venture.
- (d) In addition to the performance assessments addressed above, the Government will perform other performance assessments necessary for administration of the contract in accordance with other applicable clauses in this contract.

G.8 DOE-G-2008 NON-SUPERVISION OF CONTRACTOR EMPLOYEES (OCT 2014)

The Government shall not exercise any supervision or control over Contractor employees performing services under this contract. The Contractor's employees shall be held accountable solely to the Contractor's management, who in turn is responsible for contract performance to the Government.

Section H**SPECIAL CONTRACT REQUIREMENTS****TABLE OF CONTENTS**

H.1	DOE-H-2013 CONSECUTIVE NUMBERING (OCT 2014)	4
I.	CONTRACTOR HUMAN RESOURCE MANAGEMENT (CHRM) CLAUSES	4
H.2	DOE-H-2002 NO THIRD PARTY BENEFICIARIES (OCT 2014)	4
H.3	DEFINITIONS	4
H.4	WORKFORCE TRANSITION AND EMPLOYEE HIRING PREFERENCES, INCLUDING THROUGH PERIOD OF PERFORMANCE.....	5
H.5	DOE-H-2001 EMPLOYEE COMPENSATION: PAY AND BENEFITS (JAN 2016).....	7
H.6	SPECIAL PROVISIONS APPLICABLE TO WORKFORCE TRANSITION AND EMPLOYEE COMPENSATION: PAY AND BENEFITS	18
H.7	WORKFORCE TRANSITION AND BENEFITS TRANSITION: PLANS AND TIMEFRAMES	21
H.8	DOE-H-2004 POST CONTRACT RESPONSIBILITIES FOR PENSION AND OTHER BENEFIT PLANS (OCT 2014) (DEVIATION).....	26
H.9	DOE-H-2028 LABOR RELATIONS (OCT 2014) (DEVIATION)	27
H.10	WORKFORCE RESTRUCTURING	29
H.11	LABOR STANDARDS	31
H.12	DOE-H-2003 WORKER'S COMPENSATION INSURANCE (OCT 2014).....	32
H.13	DOE-H-2049 INSURANCE REQUIREMENT (OCT 2014)	33
H.14	DOE-H-2057 DEPARTMENT OF LABOR WAGE DETERMINATIONS (OCT 2014)(DEVIATION)	33
H.15	DOE-H-2073 RISK MANAGEMENT AND INSURANCE PROGRAMS (DEC 2014)	33
II.	BUSINESS SYSTEMS CLAUSES.....	36
H.16	DOE-H-2022 CONTRACTOR BUSINESS SYSTEMS (OCT 2014).....	36
H.17	DOE-H-2023 COST ESTIMATING SYSTEM REQUIREMENTS (OCT 2014).....	40
H.18	DOE-H-2024 EARNED VALUE MANAGEMENT SYSTEM (OCT 2014) (DEVIATION).....	43
H.19	DOE-H-2025 ACCOUNTING SYSTEM ADMINISTRATION (OCT 2014)	48
H.20	DOE-H-2026 CONTRACTOR PURCHASING SYSTEM ADMINISTRATION (OCT 2014)	50
H.21	DOE-H-2027 CONTRACTOR PROPERTY MANAGEMENT SYSTEM ADMINISTRATION (OCT 2014)	54
III.	DOE CORPORATE CLAUSES OTHER THAN CHRM OR BUSINESS SYSTEMS	55
H.22	DOE-H-2006 DEFENSE NUCLEAR FACILITY SAFETY BOARD (OCT 2014).....	55
H.23	DOE-H-2012 SUSTAINABLE ACQUISITION UNDER DOE CONSTRUCTION CONTRACTS (OCT 2014)	55
H.24	ALLOCATION OF LIABILITY FOR FINES AND PENALTIES TO RESPONSIBLE PARTY	56
H.25	DOE-H-2016 PERFORMANCE GUARANTEE AGREEMENT (OCT 2014).....	57

H.26 DOE-H-2017 RESPONSIBLE CORPORATE OFFICIAL AND CORPORATE BOARD OF DIRECTORS (OCT 2014).....	57
H.27 DOE-H-2018 PRIVACY ACT SYSTEMS OF RECORDS (OCT 2014) (DEVIATION).....	59
H.28 DOE-H-2019 DISPOSITION OF INTELLECTUAL PROPERTY – FAILURE TO COMPLETE CONTRACT PERFORMANCE (OCT 2014)	61
H.29 DOE-H-2020 PRICE-ANDERSON AMENDMENTS ACT NONCOMPLIANCE (OCT 2014)	61
H.30 DOE-H-2021 WORK STOPPAGE AND SHUTDOWN AUTHORIZATION (OCT 2014).....	62
H.31 DOE-H-2033 ALTERNATIVE DISPUTE RESOLUTION (OCT 2014)	63
H.32 DOE-H-2034 CONTRACTOR INTERFACE WITH OTHER CONTRACTORS AND/OR GOVERNMENT EMPLOYEES (OCT 2014) (DEVIATION).....	64
H.33 DOE-H-2035 ORGANIZATIONAL CONFLICT OF INTEREST MANAGEMENT PLAN (OCT 2014)	64
H.34 DOE-H-2037 NATIONAL ENVIRONMENTAL POLICY ACT (OCT 2014).....	65
H.35 DOE-H-2041 SUSTAINABLE ACQUISITION UNDER DOE SERVICE CONTRACTS (OCT 2014)	66
H.36 DOE-H-2043 ASSIGNMENT AND TRANSFER OF SUBCONTRACTS (OCT 2014)	67
H.37 DOE-H-2044 MATERIAL SAFETY DATA SHEET AVAILABILITY (OCT 2014).....	67
H.38 DOE-H-2045 CONTRACTOR COMMUNITY COMMITMENT (OCT 2014) (DEVIATION)	67
H.39 DOE-H-2046 DIVERSITY PROGRAM (OCT 2014)	68
H.40 DOE-H-2048 PUBLIC AFFAIRS – CONTRACTOR RELEASES OF INFORMATION (OCT 2014)	69
H.41 DOE-H-2050 INCORPORATION OF SMALL BUSINESS SUBCONTRACTING PLAN (OCT 2014)	69
H.42 DOE-H-2052 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF THE OFFEROR – ALTERNATE I (OCT 2014) (DEVIATION)	70
H.43 DOE-H-2053 WORKER SAFETY AND HEALTH PROGRAM IN ACCORDANCE WITH 10 CFR 851 (OCT 2014).....	70
H.44 DOE-H-2055 GOVERNMENT FURNISHED PROPERTY (OCT 2014).....	71
H.45 DOE-H-2056 ANNUAL INDIRECT BILLING RATES (OCT 2014)	71
H.46 DOE- H-2058 DESIGNATION AND CONSENT OF CRITICAL SUBCONTRACTS (OCT 2014) (DEVIATION)	72
H.47 DOE-H-2059 PRESERVATION OF ANTIQUITIES, WILDLIFE AND LAND AREAS (OCT 2014)	72
H.48 DOE-H-2061 CHANGE ORDER ACCOUNTING (OCT 2014).....	73
H.49 DOE-H-2062 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL - ALTERNATE I (OCT 2014)	73
H.50 DOE-H-2063 CONFIDENTIALITY OF INFORMATION (OCT 2014)	73
H.51 DOE-H-2064 USE OF INFORMATION TECHNOLOGY EQUIPMENT, SOFTWARE, AND THIRD PARTY SERVICES - ALTERNATE II (OCT 2014).....	74
H.52 DOE-H-2065 REPORTING OF FRAUD, WASTE, ABUSE, CORRUPTION, OR MISMANAGEMENT (OCT 2014).....	75
H.53 DOE-H-2066 SAFEGUARDS AND SECURITY PROGRAM – ALTERNATE I (OCT 2014).....	76
H.54 DOE-H-2067 GOVERNMENT FURNISHED ON-SITE FACILITIES OR SERVICES (OCT 2014)77	

H.55 DOE-H-2068 CONFERENCE MANAGEMENT (OCT 2014) (DEVIATION).....	77
H.56 DOE-H-2069 PAYMENTS FOR DOMESTIC EXTENDED PERSONNEL ASSIGNMENTS (OCT 2014) (DEVIATION).....	79
H.57 DOE-H-2070 KEY PERSONNEL- ALTERNATE I (OCT 2014) (DEVIATION).....	80
H.58 DOE-H-2071 DEPARTMENT OF ENERGY DIRECTIVES (OCT 2014).....	81
H.59 DOE-H-2072 USE OF GOVERNMENT VEHICLES BY CONTRACTOR EMPLOYEES (OCT 2014)	82
H.60 DOE-H-2075 PROHIBITION ON FUNDING FOR CERTAIN NONDISCLOSURE AGREEMENTS (OCT 2014)	83
H.61 DOE-H-2076 LOBBYING RESTRICTIONS (OCT 2014).....	84
IV OTHER CLAUSES	84
H.62 SUBCONTRACTED WORK.....	84
H.63 PARENT ORGANIZATION SUPPORT	84
H.64 QUALITY ASSURANCE FOR WORK AFFECTING NUCLEAR SAFETY	85
H.65 ENVIRONMENTAL RESPONSIBILITY	86
H.66 PARTNERING	88
H.67 NNSA/EM STRATEGIC SOURCING PARTNERSHIP	88
H.68 INTEGRATED WORK CONTROL SYSTEMS AND REPORTING REQUIREMENTS (APR 2016)	88
H.69 UNALLOWABLE COSTS	95
H.70 ENVIRONMENTAL OBJECTIVES AND REQUIREMENTS	95
H.71 EMERGENCY CLAUSE.....	96
H.72 Advance Agreement on COVID-19 Related Costs (02 April 20).....	96
H.73 Paid leave under Section 3610 of the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) to maintain employees and subcontractors in a ready state.....	97

H.1 DOE-H-2013 CONSECUTIVE NUMBERING (OCT 2014)

Due to automated procedures employed in formulating this document, clauses and provisions contained within may not always be consecutively numbered.

I. CONTRACTOR HUMAN RESOURCE MANAGEMENT (CHRM) CLAUSES**H.2 DOE-H-2002 NO THIRD PARTY BENEFICIARIES (OCT 2014)**

This Contract is for the exclusive benefit and convenience of the parties hereto. Nothing contained herein shall be construed as granting, vesting, creating or conferring any right of action or any other right or benefit upon past, present or future employees of the Contractor, or upon any other third party. This provision is not intended to limit or impair the rights which any person may have under applicable Federal statutes.

H.3 DEFINITIONS

For purposes of Clauses H.4, Workforce Transition and Employee Hiring Preferences through H.7, Workforce Transition and Benefits Transition: Plans and Timeframes, the following definitions are applicable (unless otherwise specified):

- (A) “BWCS” means BWXT Conversion Services, Inc. and its first and second tier subcontractors under DOE Contract DE-AC30-11CC40015 at Paducah Gaseous Diffusion Plant.
- (B) “Contract Award Date” means the date the contract is signed by the Contracting Officer, noted in Block 28 of the SF 33.
- (C) “Contract Transition Period” means the 121 day transition as defined in Section F of this Contract.
- (D) “Grandfathered Employees” means those whom the East Tennessee Technology Park Pension Plan for Grandfathered Employees (ETTP MEPP) defines as “Grandfathered Employees”.
- (E) “Non-Grandfathered Employees” means employees who are not defined as Grandfathered Employees under the ETTP MEPP in accordance with the terms of the ETTP MEPP and applicable law.
- (F) “Incumbent Contractors” means Fluor Federal Services, Inc., (FFS) and its first tier subcontractor, LATA-Sharp Remediation Services, LLC (LSRS), performing work under DOE Task Order No. DE-DT0007774 at the Paducah Gaseous Diffusion Plant.
- (G) “Incumbent Employees” means employees who hold regular appointments or who are regular employees as of the date of award, and on the rolls of the Incumbent Contractors as of the date of Contract Award.

- (H) “Non-Incumbent Employees” are employees other than Incumbent Employees.
- (I) “USEC” means the United States Enrichment Corporation.
- (J) “USEC Employees” means those individuals who were regular employees of USEC at the Paducah Gaseous Diffusion Plant Site.
- (K) “UCOR” means URS/CH2M Oak Ridge, LLC under Contract DE-SC0004645. UCOR is the current lead sponsor of the ETTP MEPP.
- (L) “SSI” means Swift & Staley Inc. and its first and second tier subcontractors under DOE Contract DE-EM-0003733 at the Paducah Gaseous Diffusion Plant Site.
- (M) “Notice to Proceed (NTP)” means the authorization issued by the Contracting Officer to start performance on this Contract or as otherwise defined in this Contract.

H.4 WORKFORCE TRANSITION AND EMPLOYEE HIRING PREFERENCES, INCLUDING THROUGH PERIOD OF PERFORMANCE

The Contractor shall comply with the hiring preferences set forth below:

- (A) The Contractor shall comply with the right of first refusal for employment for service employees and all of the requirements set forth in FAR 52.222-17 for the applicable work and positions. If a qualified service employee declines a bona fide express offer of employment, the Contractor need not provide the preference in hiring in paragraphs (B)(1)(a) and (b) below to such employee, but should provide the other preferences in Paragraph (B) below, as applicable.
- (B) The Contractor shall provide, during the transition period and throughout the period of performance, preferences in hiring for vacancies for non-managerial positions (i.e., all those below the first line of supervision) in non-construction activities of the PWS under this Contract, in accordance with the hiring preferences in paragraphs (1) – (4) below (subject to paragraph (A) above, in descending order of priority, any applicable collective-bargaining agreement(s), applicable law, and applicable site seniority lists as provided to the Contractor by the Contracting Officer), as set forth below.
 - (1) The Contractor shall provide Incumbent Employees the preferences in paragraphs (a) through (c) in descending order of priority:
 - (a) A right of first refusal for vacancies in non-managerial positions that are comparable to the positions the above employees held at the time of award.
 - (b) A preference in hiring for vacancies in non-managerial positions for the above employees who meet the qualifications for the position

- (c) A preference in hiring for vacancies in non-managerial positions for the above employees who may not meet the qualifications for the position, but who agree to become qualified and can become qualified by the commencement of active employment under this Contract with the training as provided in paragraph (6) below.
- (2) The Contractor shall give a preference in hiring to individuals (1) who are former employees of FFS, LSRS, SSI, and BWCS or USEC and (2) who are entitled to recall rights consistent with any applicable site seniority lists and any applicable collective bargaining agreements(s) at the Paducah Gaseous Diffusion Plant.
- (3) The Contractor shall give a preference in hiring to individuals set forth below in paragraphs (a) – (c), in descending order of priority, who are eligible for the hiring preference contained in the clause in Section I of this Contract entitled “DEAR 952.226-74, Displaced Employee Hiring Preference” (including USEC Employees who are eligible for the preference pursuant to 42. U.S.C. 2297h-8(a)(5)) consistent with the provisions of any applicable Work Force Restructuring Plan, as amended from time to time, regarding the preferential hiring of employees:
 - (a) Grandfathered Employees who are former employees of FFS and LSRS at the Paducah Gaseous Diffusion Plant, and
 - (b) Former employees of FFS, LSRS, SSI, BWCS or USEC or any other DOE contractor at the Paducah Gaseous Diffusion Plant Site; and
 - (c) Former employees of any other DOE contractor or subcontractor at a DOE defense nuclear facility.
- (4) The Contractor shall give a preference in hiring to individuals (a) who were formerly employed at the Paducah Gaseous Diffusion plant by FFS, LSRS, SSI, BWCS or USEC and (b) who were involuntarily separated (other than for cause) from employment at the Paducah Gaseous Diffusion Plant; (c) who are qualified for a particular position or who may not meet the qualifications for a particular position, but who agree to become qualified and can become qualified by the commencement of active employment under this Contract.
- (5) The Contractor shall give a preference in hiring to individuals (1) who have separated from employment at the Paducah Gaseous Diffusion Plant, (2) who are not precluded from seeking employment at the Paducah Gaseous Diffusion Plant by the terms of employee waivers or releases of claims they executed absent repayment of severance consistent with the terms of those agreements; and (3) who are qualified for a particular position or who may not meet the qualifications for a particular position, but who agree to become qualified and can become qualified by the commencement of active employment under this Contract.

- (6) The Contractor will establish a training program specifically for the purpose of training individuals for the purpose specified in paragraph (B)(1)(c) above.

H.5 DOE-H-2001 EMPLOYEE COMPENSATION: PAY AND BENEFITS (JAN 2016)

(A) Contractor Employee Compensation Plan

The Contractor shall submit, for Contracting Officer approval, by close of contract transition, a Contractor Employee Compensation Plan demonstrating how the Contractor will comply with the requirements of this Contract. The Contractor Employee Compensation Plan shall describe the Contractor's policies regarding compensation, pensions and other benefits, and how these policies will support at reasonable cost the effective recruitment and retention of a highly skilled, motivated, and experienced workforce.

A description of the Contractor Employee Compensation Program should include the following components;

- (1) Philosophy and strategy for all pay delivery programs.
- (2) System for establishing a job worth hierarchy.
- (3) Method for relating internal job worth hierarchy to external market.
- (4) System that links individual and/or group performance to compensation decisions.
- (5) Method for planning and monitoring the expenditure of funds.
- (6) Method for ensuring compliance with applicable laws and regulations.
- (7) System for communicating the programs to employees.
- (8) System for internal controls and self-assessment.
- (9) System to ensure that reimbursement of compensation, including stipends, for employees who are on joint appointments with a parent or other organization shall be on a pro-rated basis.

(B) Total Compensation System

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system consistent with FAR 31.205-6 and DEAR 970.3102-05-6; "Compensation for Personal Services". DOE-approved standards (e.g., set forth in an advance understanding or appendix), if any, shall be applied to the Total Compensation System. The Contractor's Total Compensation System shall be fully documented, consistently applied, and acceptable to the Contracting Officer. Costs incurred in implementing the Total Compensation System shall be consistent with the Contractor's documented Contractor Employee Compensation Plan as approved by the Contracting Officer.

(C) Reports and Information

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

- (1) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure showing actual against approved amounts and planned distribution of funds for the following year.
- (2) A list of the top five most highly compensated executives as defined in FAR 31.205-6(p)(4)(ii) and their total cash compensation at the time of NTP and at the time of any subsequent change to their total cash compensation. This should be the same information provided to the System for Award Management (SAM) per FAR 52.204-10.
- (3) An Annual Report of Compensation and Benefits. Report no later than March 1 of each year in iBenefits or its successor.

(D) Pay and Benefit Programs

The Contractor shall establish pay and benefit programs for Incumbent Employees and Non-Incumbent Employees as defined in paragraphs (1) and (2) below; provided, however, that employees scheduled to work fewer than 20 hours per week receive only those benefits required by law. Employees are eligible for benefits, subject to the terms, conditions, and limitations of each benefit program.

- (1) Incumbent Employees are as defined in H.3.
 - (a) Pay. The Contractor shall provide equivalent base pay to Incumbent Employees as compared to base pay provided by the Incumbent Contractors, and in accordance with the terms and conditions of this Contract including any applicable collective bargaining agreement(s) and applicable law, including Section 4(c) of the Service Contract Labor Standards statute, for at least the first year of the term of the Contract.
 - (b) Pension and Other Benefits. The Contractor shall provide a total package of benefits to Incumbent Employees comparable to that provided by the Incumbent Contractors. Comparability of the total package of benefits shall be determined by the CO in his/her sole discretion.
- (2) Non-Incumbent Employees are as defined in H.3. All Non-Incumbent Employees shall receive a total pay and benefits package that provides for market-based retirement and medical benefit plans that are competitive with the industry from which the Contractor recruits its employees and in accordance with Contract requirements. Notwithstanding the above, benefits for Grandfathered Employees shall be provided in accordance with Clause H.6.

(3) Cash Compensation

- (a) The Contractor shall submit the following to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract:
- (i) Any proposed major compensation program design changes prior to implementation.
 - (ii) Variable pay programs/incentives. If not already authorized under Appendix A of the contract, a justification shall be provided with proposed costs and impacts to budget, if any.
 - (iii) In the absence of Departmental policy to the contrary (e.g., Secretarial pay freeze) a Contractor that meets the criteria, as set forth below, is not required to submit a Compensation Increase Plan (CIP) request to the Contracting Officer for an advance determination of cost allowability for a Merit Increase fund or Promotion/Adjustment fund:
 - The Merit Increase fund does not exceed the mean percent increase included in the annual Departmental guidance providing the WorldatWork Salary Budget Survey's salary increase projected for the CIP year. The Promotion/Adjustment fund does not exceed (1.00 percent in total.
 - The budget used for both Merit Increase funds and Promotion/Adjustment funds shall be based on the payroll for the end of the previous CIP year.
 - Salary structure adjustments do not exceed the mean WorldatWork structure adjustments projected for the CIP year and communicated through the annual Department CIP guidance.
 - Please note: No later than the first day of the CIP cycle, Contractors must provide notification to the Contracting Officer of planned increases and position to market data by mutually agreed-upon employment categories. No presumption of allowability will exist for employee job classes that exceed market position.
 - (iv) If a Contractor does not meet the criteria included in (iii) above, a CIP must be submitted to the Contracting Officer for an advance determination of cost allowability. The CIP should include the following components and data:
 - (1) Comparison of average pay to market average pay.
 - (2) Information regarding surveys used for comparison.
 - (3) Aging factors used for escalating survey data and supporting information.
 - (4) Projection of escalation in the market and supporting information.
 - (5) Information to support proposed structure adjustments, if any.

- (6) Analysis to support special adjustments.
 - (7) Funding requests for each pay structure to include breakouts of merit, promotions, variable pay, special adjustments, and structure movement. (a) The proposed plan totals shall be expressed as a percentage of the payroll for the end of the previous CIP year. (b) All pay actions granted under the compensation increase plan are fully charged when they occur regardless of time of year in which the action transpires and whether the employee terminates before year end. (c) Specific payroll groups (e.g., exempt, nonexempt) for which CIP amounts are intended shall be defined by mutual agreement between the contractor and the Contracting Officer. (d) The Contracting Officer may adjust the CIP amount after approval based on major changes in factors that significantly affect the plan amount (for example, in the event of a major reduction in force or significant ramp-up).
 - (8) A discussion of the impact of budget and business constraints on the CIP amount.
 - (9) Comparison of pay to relevant factors other than market average pay.
- (v) After receiving DOE CIP approval or if criteria in (D)(A)(3)(iii) are met, contractors may make minor shifts of up to 10 percent of approved CIP funds by employment category (e.g., Scientist/Engineer, Admin, Exempt, Non-Exempt) without obtaining DOE approval.
- (vi) Individual compensation actions for the top contractor official (e.g., laboratory director/plant manager or equivalent) and key personnel not included in the CIP. For those key personnel included in the CIP, DOE will approve salaries upon the initial Contract award and when key personnel are replaced during the life of the Contract. DOE will have access to all individual salary reimbursements. This access is provided for transparency; DOE will not approve individual salary actions (except as previously indicated).
- (b) The Contracting Officer's approval of individual compensation actions will be required only for the top contractor official (e.g., laboratory director/plant manager or equivalent) and key personnel as indicated in (D) (3) (A) (vi) above. The base salary reimbursement level for the top contractor official establishes the maximum allowable base salary reimbursement under the Contract. Unusual circumstances may require a deviation for an individual on a case-by-case basis. Any such deviations must be approved by the Contracting Officer.
- (c) Severance Pay is not payable to an employee under this Contract if the employee:
- (i) Voluntarily separates, resigns or retires from employment,
 - (ii) Is offered employment with a successor/replacement contractor,

- (iii) Is offered employment with a parent or affiliated company, or
- (iv) Is discharged for cause.

- (d) Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement contract or Task Order.

(E) Pension and Other Benefit Programs

- (1) No presumption of allowability will exist when the Contractor implements a new benefit plan or makes changes to existing benefits plans that increases costs or are contrary to Departmental policy or written instruction or until the Contracting Officer makes a determination of cost allowability for reimbursement for new or changed benefit plans. Changes shall be in accordance with and pursuant to the terms and conditions of the contract. Advance notification, rather than approval, is required for changes that do not increase costs and are not contrary to Departmental policy or written instruction. To the extent that the Contractor has not submitted a new benefit plan or changes to existing benefit plans for approval on the basis that it does not increase costs and such new plan or change to existing plan does in fact increase costs, any increase in costs may be considered unreasonable and will likely be determined unallowable.
- (2) Cost reimbursement for Employee pension and other benefit programs sponsored by the Contractor will be based on the Contracting Officer's approval of Contractor actions pursuant to an approved "Employee Benefits Value Study" and an "Employee Benefits Cost Survey Comparison" as described below.
- (3) Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall submit the studies required in paragraphs (a) and (b) below. The studies shall be used by the Contractor in calculating the cost of benefits under existing benefit plans. An Employee Benefits Value (Ben-Val) Study Method using no less than 15 comparator organizations and an Employee Benefits Cost Survey comparison Method shall be used in this evaluation to establish an appropriate comparison method. In addition, the Contractor shall submit updated studies to the Contracting Officer for approval prior to the adoption of any change to a pension or other benefit plan which increases costs.
 - (a) The Ben-Val, every two years for each benefit tier (e.g., group of employees receiving a benefit package based on date of hire), which is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor to Employees measured against the RV of benefit programs offered by the Contracting Officer approved comparator companies. To the extent that the value studies do not address post-retirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post-retirement benefits other than pensions using external benchmarks

derived from nationally recognized and Contracting Officer approved survey sources and,

- (b) An Employee Benefits Cost Study Comparison, annually for each benefit tier that analyzes the Contractor's employee benefits cost for employees as a percent of payroll and compares it with the cost as a percent of payroll including geographic factor adjustments, reported by the U.S. Department of Labor's Bureau of Labor Statistics or other Contracting Officer approved broad based national survey.
- (4) When the net benefit value exceeds the comparator group by more than five percent, the Contractor shall submit a corrective action plan to the Contracting Officer for approval, unless waived in writing by the Contracting Officer.
- (5) When the benefit costs as a percent of payroll exceeds the comparator group by more than five percent, when and if required by the Contracting Officer, the Contractor shall submit an analysis of the specific plan costs that result in or contribute to the percent of payroll exceeding the costs of the comparator group and submit a corrective action plan if directed by the Contracting Officer.
- (6) Within two years, or longer period as agreed to between the Contractor and the Contracting Officer, of Contracting Officer acceptance of the Contractor's corrective action plan, the Contractor shall align employee benefit programs with the benefit value and the cost as a percent of payroll in accordance with its corrective action plan.
- (7) The Contractor may not terminate any benefit plan during the term of the Contract without the prior approval of the Contracting Officer in writing.
- (8) Cost reimbursement for post-retirement benefits other than pensions (PRBs) is contingent on DOE approved service eligibility requirements for PRB that shall be based on a minimum period of continuous employment service not less than 5 years under a DOE cost reimbursement contract(s) immediately prior to retirement. Unless required by Federal or State law, advance funding of PRBs is not allowable.
- (9) Each contractor sponsoring a defined benefit pension plan and/or postretirement benefit plan will participate in the annual plan management process which includes written responses to a questionnaire regarding plan management, providing forecasted estimates of future reimbursements in connection with the plan and participating in a conference call to discuss the contractor submission (see (G)(7) below for Pension Management Plan requirements).
- (10) Each contractor will respond to quarterly data calls issued through iBenefits, or its successor system.

(F) Establishment and Maintenance of Pension Plans for which DOE Reimburses Costs

- (1) Employees working for the Contractor shall only accrue credit for service under this Contract after the date of Contract award.
- (2) Any pension plan maintained by the Contractor for which DOE reimburses costs shall be maintained as a separate pension plan distinct from any other pension plan that provides credit for service not performed under a DOE cost-reimbursement contract.

(G) Basic Requirements

The Contractor shall adhere to the requirements set forth below in the establishment and administration of pension plans that are reimbursed by DOE pursuant to cost reimbursement contracts for management and operation of DOE facilities and pursuant to other cost reimbursement facilities contracts. Pension Plans include Defined Benefit and Defined Contribution plans.

- (1) The Contractor shall become a sponsor of the existing ETTP MEPP and other benefit plans (or comparable successor plans), including other post-retirement benefits (PRB) plans, as applicable, if and when it hires employees who are eligible to participate in the ETTP MEPP, and retired plan participants, with responsibility for management and administration of the plans. The Contractor shall be responsible for maintaining the qualified status of the plans.
- (2) The Contractor shall become the sponsor of any other existing defined benefit and defined contribution pension plans and other benefit plans (or comparable successor plans), including other post-retirement benefit (PRB) plans, as applicable, with responsibility for management and administration of the plans. The Contractor shall be responsible for maintaining the qualified status of those plans consistent with the requirements of ERISA and the Internal Revenue Code (IRC). The Contractor shall carry over the length of service credit and leave balances accrued as of the date of the Contractor's assumption of Contract performance.
- (3) Each Contractor defined benefit and defined contribution pension plan shall be subjected to a limited-scope audit annually that satisfies the requirements of ERISA section 103, except that every third year the Contractor must conduct a full-scope audit of defined benefit plan(s) satisfying ERISA section 103. Alternatively, the Contractor may conduct a full-scope audit satisfying ERISA section 103 annually. In all cases, the Contractor must submit the audit results to the Contracting officer. In years in which a limited scope audit is conducted, the Contractor must provide the Contracting Officer with a copy of the qualified trustee or custodian's certification regarding the investment information that provides the basis for the plan sponsor to satisfy reporting requirements under ERISA section 104.

While there is no requirement to submit a full scope audit for defined contribution plans, contractors are responsible for maintaining adequate controls for ensuring that defined contribution plan assets are correctly recorded and allocated to plan participants.

- (4) For existing Commingled Plans, the Contractor shall maintain and provide annual Separate Accounting of DOE liabilities and assets for a Separate Plan.
- (5) For existing Commingled Plans, the Contractor shall be liable for any shortfall in the plan assets caused by funding or events unrelated to DOE contracts.
- (6) The Contractor shall comply with the requirements of ERISA if applicable to the pension plan and any other applicable laws.
- (7) The Pension Management Plan (PMP) shall include a discussion of the Contractor's plans for management and administration of all pension plans consistent with the terms of this Contract. The PMP shall be submitted in the iBenefits system, or its successor system no later than January 31 of each applicable year. A full description of the necessary reporting will be provided in the annual management plan data request. Within sixty (60) days after the date of the submission, appropriate Contractor representatives shall participate in a conference call to discuss the Contractor's PMP submission and any other current plan issues.

(H) Reimbursement of Contractors for Contributions to Defined Benefit Pension Plans

- (1) Contractors that sponsor single employer or multiple employer defined benefit pension plans will be reimbursed for the annual required minimum contributions under the Employee Retirement Income Security Act (ERISA), as amended by the Pension Protection Act (PPA) of 2006 and any other subsequent amendments. Reimbursement above the annual minimum required contribution will require prior approval of the Contracting Officer. Minimum required contribution amounts will take into consideration all pre-funding balances and funding standard carryover balances. Early in the fiscal year but no later than the end of November, the Contractor requesting above the minimum may submit/update a business case for funding above the minimum if preliminary approval is needed prior to the Pension Management Plan process. The business case shall include a projection of the annual minimum required contribution and the proposed contribution above the minimum. The submission of the business case will provide the opportunity for the Department to provide preliminary approval, within 30 days after contractor submission, pending receipt of final estimates, generally after January 1st of the calendar year. Final approval of funding will be communicated by the Head of Contracting Activity (HCA) when discount rates are finalized and it is known whether there are any budget issues with the proposed contribution amount.

(I) Reporting Requirements for Designated Contracts

The following reports shall be submitted to DOE as soon as possible after the last day of the plan year by the contractor responsible for each designated pension plan funded by DOE but no later than the dates specified below:

- (1) Actuarial Valuation Reports. The annual actuarial valuation report for each DOE-reimbursed pension plan and when a pension plan is commingled, the contractor shall submit separate reports for DOE's portion and the plan total by the due date for filing IRS Form 5500.
- (2) Forms 5500. Copies of IRS Forms 5500 with Schedules for each DOE-funded pension plan, no later than that submitted to the IRS.
- (3) Forms 5300. Copies of all forms in the 5300 series submitted to the IRS that document the establishment, amendment, termination, spin-off, or merger of a plan submitted to the IRS.

(J) Changes to Pension Plans

At least sixty (60) days prior to the adoption of any changes to a pension plan, the Contractor shall submit the information required below, to the Contracting Officer. The Contracting Officer must approve plan changes that increase costs as part of a determination as to whether the costs are deemed allowable pursuant to FAR 31.205-6, as supplemented by DEAR 970.3102-05-6.

- (1) For proposed changes to pension plans and pension plan funding, the Contractor shall provide the following to the Contracting Officer:
 - (a) a copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout;
 - (b) an analysis of the impact of any proposed changes on actuarial accrued liabilities and costs;
 - (c) except in circumstances where the Contracting Officer indicates that it is unnecessary, a legal explanation of the proposed changes from the counsel used by the plan for purposes of compliance with all legal requirements applicable to private sector defined benefit pension plans;
 - (d) the Summary Plan Description; and,
 - (e) any such additional information as requested by the Contracting Officer.

- (2) Contractors shall submit new benefit plans and changes to plan design or funding methodology with justification to the Contracting Officer for approval, as applicable (see (E)(1) above). The justification must:
 - (a) demonstrate the effect of the plan changes on the contract net benefit value or percent of payroll benefit costs,
 - (b) provide the dollar estimate of savings or costs, and
 - (c) provide the basis of determining the estimated savings or cost.

(K) Terminating Operations

When operations at a designated DOE facility are terminated and no further work is to occur under the prime contract, the following apply:

- (1) No further benefits for service shall accrue.
- (2) The Contractor shall provide a determination statement in its settlement proposal, defining and identifying all liabilities and assets attributable to the DOE contract.
- (3) The Contractor shall base its pension liabilities attributable to DOE contract work on the market value of annuities or lump sum payments or dispose of such liabilities through a competitive purchase of annuities or lump sum payouts.
- (4) Assets shall be determined using the “accrual-basis market value” on the date of termination of operations.
- (5) DOE and the Contractor(s) shall establish an effective date for spinoff or plan termination. On the same day as the contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(L) Terminating Plans

- (1) DOE contractors shall not terminate any pension plan (Commingled or site specific) without requesting Departmental approval at least 60 days prior to the scheduled date of plan termination.
- (2) To the extent possible, the contractor shall satisfy plan liabilities to plan participants by the purchase of annuities through competitive bidding on the open annuity market or lump sum payouts. The contractor shall apply the assumptions and procedures of the Pension Benefit Guaranty Corporation.

- (3) Funds to be paid or transferred to any party as a result of settlements relating to pension plan termination or reassignment shall accrue interest from the effective date of termination or reassignment until the date of payment or transfer.
- (4) If ERISA or IRC rules prevent a full transfer of excess DOE reimbursed assets from the terminated plan, the contractor shall pay any deficiency directly to DOE according to a schedule of payments to be negotiated by the parties.
- (5) On or before the same day as the contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.
- (6) DOE liability to a Commingled pension plan shall not exceed that portion which corresponds to DOE contract service. The DOE shall have no other liability to the plan, to the plan sponsor, or to the plan participants.
- (7) After all liabilities of the plan are satisfied, the contractor shall return to DOE an amount equaling the asset reversion from the plan termination and any earnings which accrue on that amount because of a delay in the payment to DOE. Such amount and such earnings shall be subject to DOE audit. To affect the purposes of this paragraph, DOE and the contractor may stipulate to a schedule of payments.

(M) Special Programs

Contractors must advise DOE and receive prior approval for each early-out program, window benefit, disability program, plan-loan feature, employee contribution refund, asset reversion, or incidental benefit.

(N) Definitions

- (1) Commingled Plans. Cover employees from the contractor's private operations and its DOE contract work.
- (2) Current Liability. The sum of all plan liabilities to employees and their beneficiaries. Current liability includes only benefits accrued to the date of valuation. This liability is commonly expressed as a present value.
- (3) Defined Benefit Pension Plan. Provides a specific benefit at retirement that is determined pursuant to the formula in the pension plan document.
- (4) Defined Contribution Pension Plan. Provides benefits to each participant based on the amount held in the participant's account. Funds in the account may be comprised of employer contributions, employee contributions, investment returns on behalf of that plan participant and/or other amounts credited to the participant's account.

- (5) Designated Contract. For purposes of this clause, a contract (other than a prime cost reimbursement contract for management and operation of a DOE facility) for which the Head of the Departmental Contracting Activity determines that advance pension understandings are necessary or where there is a continuing Departmental obligation to the pension plan.
- (6) Pension Fund. The portfolio of investments and cash provided by employer and employee contributions and investment returns. A pension fund exists to defray pension plan benefit outlays and (at the option of the plan sponsor) the administrative expenses of the plan.
- (7) Separate Accounting. Account records established and maintained within a commingled plan for assets and liabilities attributable to DOE contract service. NOTE: The assets so represented are not for the exclusive benefit of any one group of plan participants.
- (8) Separate Plan. Must satisfy IRC Sec. 414(l) definition of a single plan, designate assets for the exclusive benefit of employees under DOE contract, exist under a separate plan document (having its own Department of Labor plan number) that is distinct from corporate plan documents and identify the contractor as the plan sponsor.
- (9) Spun-off Plan. A new plan which satisfies IRC Reg. 1.414 (l)-1 requirements for a single plan and which is created by separating assets and liabilities from a larger original plan. The funding level of each individual participant's benefits shall be no less than before the event, when calculated on a "plan termination basis."

H.6 SPECIAL PROVISIONS APPLICABLE TO WORKFORCE TRANSITION AND EMPLOYEE COMPENSATION: PAY AND BENEFITS

- (A) Benefit Plans. The Contractor shall provide pension and other benefit plans, to Grandfathered Employees and all other employees hired by the Contractor and service credit for leave as set forth below:
 - (1) Grandfathered Employees shall be provided pension and other benefits consistent with applicable law, any applicable collective bargaining agreement(s), and the provisions of the ETTP MEPP, and the ETTP MEWA. To the extent that the tax-qualified status of those plans is not jeopardized (see (G), of H.5 above), no employee who qualifies as a Grandfathered Employee under the ETTP MEPP shall lose the right to participate in the ETTP MEPP as a result of this transition. However, if the participation of a particular classification of employees (e.g., highly compensated employees) could jeopardize the tax qualifications of the ETTP MEPP, the contractor shall take appropriate action as necessary to ensure the ETTP MEPP remains qualified under the IRC, consistent with the processes and procedures set forth herein. Consistent with the terms of the plan(s), any

transition of the employees from WEMS to the Contractor shall not constitute a break in service under the ETTP MEPP and ETTP MEWA.

- (2) **Non-Grandfathered Employees.** Non-Grandfathered Employees shall receive a benefits package that provides for market-based retirement and medical benefit plans that are competitive with the industry from which the Contractor recruits its employees and in accordance with this Contract, any applicable collective bargaining agreement(s), and applicable law, including Section 4(c) of the Service Contract Labor Standards statute.
- (3) Notwithstanding any other clause in this Contract, the Contractor shall ensure that it becomes the sponsor of the ETTP MEPP and ETTP MEWA plans, or any other existing pension and benefit plans, as applicable, for Incumbent Employees no later than the date that the Contractor becomes the employer for employees eligible for participating, so that there is uninterrupted and continuous participation by eligible employees in the foregoing plan(s).
- (B) **Service Credit For Leave.** For Incumbent Employees hired by the Contractor as defined in Clause H.3, the Contractor shall carry over the length of service credit from the previous employer for purposes of determining rates of accruing leave for these employees as required by and consistent with any applicable collective bargaining agreement(s) and applicable law.
- (C) **Service Credit for Fringe Benefits Other Than Leave.** Service credit for all individuals hired by the Contractor shall be applied consistent with any applicable collective bargaining agreement(s), applicable law, and the terms of the applicable benefit plan(s). Service credit for purposes of severance pay is subject to Clause H.5.
- (D) **Administrative Agreements with Lead Sponsor.** The lead sponsor (UCOR) or a lead sponsor successor of the ETTP MEPP, ETTP MEWA and other benefit plans in which UCOR or a successor lead sponsor are participating employers/sponsors, shall have responsibility for management and administration of these plans, consistent with plan documents and any other administrative documents. UCOR or a successor lead sponsor shall provide management and administrative services for the Contractor for the ETTP MEPP, ETTP MEWA, and other benefit plans in which the Contractor and UCOR or a successor lead sponsor are participating employers/sponsors (ETTP Plans). The Contractor shall enter into administrative agreements with the lead sponsor, UCOR, or a successor lead sponsor, for the management and administration of these plans when the Contractor has Grandfathered Employees participating in the ETTP Plan(s). The agreements and costs contained therein shall be subject to the approval of the Contracting Officer.
- (E) **Annual Actuarial Evaluations.** Notwithstanding the above, the Contractor has responsibility for administering and maintaining the qualified status of all pension and other benefit plans that it sponsors under this Contract consistent with the plan documents. The Contractor shall submit to the Contracting Officer annually actuarial

evaluations for all applicable benefit plans as well as certify that the benefit plans are in full compliance with IRC and ERISA requirements. Such certification shall demonstrate that the benefit plans are qualified under the IRC. This evaluation shall include but not be limited to written reports relating to how the benefit plans pass IRC discrimination, participation and coverage testing requirements. Each detailed annual written actuarial evaluation shall identify any conditions that may adversely affect the qualification status of the plans within eighteen months or less of the date of the evaluation, including but not limited to discrimination, participation and coverage testing requirements for the contractor and any of its subcontractors that are participating employers in the plans.

(1) Meeting Test Requirements.

The Contractor shall closely monitor each of its individual subcontractor employer segments participating in the ETTP MEPP and other existing multiple or multi-employer pension plans. With the approval of the Contracting Officer, the Contractor shall establish threshold factors that based upon the experience of the ETTP MEPP and these other existing pension plans regarding the testing requirements indicate when the Contractor and/or its individual subcontractor employer segments may not meet testing requirements within the next two plan years. Every six months the Contractor shall identify any employer plan segments for the Contractor and its individual subcontractor employee segments that may not meet testing requirements for the current plan year and the following plan year.

(2) Failure to Meet Test Requirements. In the case of employer segments for which the approved threshold factors described above and other factors as approved or requested by the Contracting Officer indicate that the employer segments may not meet testing requirements, the Contractor, in conjunction with the lead sponsor, shall provide the Contracting Officer with a corrective action plan for addressing the potential or actual failure to meet testing requirements and quarterly updates on the segment's status for testing purposes. After the corrective action plan has been submitted and approved by the Contracting Officer, the Contractor shall provide quarterly updates on the segment's status for testing purposes.

(F) Withdrawal from the ETTP MEPP. In addition to the requirement in paragraph (L)(1) of Clause H.5, the Contractor shall not withdraw from the ETTP MEPP or the ETTP MEWA without the consent of the Contracting Officer. If the Contractor withdraws without the prior, written approval of the Contracting Officer, all costs (including withdrawal liability under ERISA) associated with such withdrawal may be determined to be unallowable and the Government retains the right to assert a claim against the Contractor for any costs of the Department associated with such withdrawal.

(G) Changes to the ETTP MEPP and any other existing DB pension plan. In addition to any other provisions of this Contract, including but not limited to paragraph (J)

of Clause H.5, any changes or amendments to the ETTP MEPP must be approved in writing in advance by the CO and shall be in accordance with applicable law, including compliance with any applicable collective bargaining agreement(s).

- (H) Change in Name. The name(s) of the ETTP MEPP, the ETTP MEWA, and other benefit plans may change as a result of the change in lead sponsorship of these plans. Any references to the ETTP MEPP, the ETTP MEWA, and other benefit plans contained in this Contract apply to these plans as renamed.

H.7 WORKFORCE TRANSITION AND BENEFITS TRANSITION: PLANS AND TIMEFRAMES

- (A) Workforce Transition Plan. The Contractor shall submit a Workforce Transition Plan (WF Transition Plan) for Contracting Officer approval, describing in detail the Contractor's plans and procedures as to how the Contractor will comply with the hiring preferences set forth in Clause H. 4, Workforce Transition and Employee Hiring Preferences Including through Period of Performance, and Section I. DEAR 952.226-74, Displaced Employee Hiring Preference. The WF Transition Plan shall also detail the Contractor's plan for incorporating, if applicable, multiple unions with separate bargaining agreements. Notwithstanding timeframes identified elsewhere in the Contract, the Contractor shall perform the following activities in the specified timeframes:

- (1) Within 20 calendar days after NTP, the Contractor shall:

- (a) Provide the Contracting Officer with a list of Contractor personnel who will be responsible for transitioning the employees of the Incumbent Contractors and for development of the transition agreements, including specifically the personnel responsible for ensuring that the Contractor complies with the National Labor Relations Act and Clause H.9 Labor Relations, and contact information for the above personnel;
- (b) Submit to the Contracting Officer a description of any and all transition agreements that it intends to enter into with FFS to ensure compliance with Clause H.4, Workforce Transition and Employee Hiring Preferences during the Contract Transition Period;
- (c) Establish and submit to the Contracting Officer a draft communication plan detailing the communication the Contractor and its subcontractors will engage in with FFS and their employees or former employees, and any labor organizations representing those employees, regarding implementation of the requirements set forth in Clauses H.4, Workforce Transition and Employee Hiring Preferences, and H.5, Employee Compensation: Pay and Benefits; and;

- (d) Obtain information from FFS, identifying the employees who have initially been identified as being at risk of being involuntarily separated. Provide and define a process as part of transition agreements required in paragraph (1) (a) above for obtaining updated and continuous information through the Transition Period regarding the identification of employees by FFS that have been identified as being at risk of being involuntarily separated.
- (2) Within 30 calendar days after NTP, the Contractor shall:
- (a) Submit to the Contracting Officer copies of the draft WF Transition Plan for the Contractor and its first and second tier subcontractors, including processes and procedures regarding how the Contractor will implement and ensure compliance with the hiring preferences set forth in Clause H.4, Workforce Transition and Employee Hiring Preferences and Clause H.9, Labor Relations, as applicable.
 - (b) Establish and provide a copy to the Contracting Officer of its final written communication plan with:
 - (i) FFS regarding the implementation of the hiring preferences in Clause H.4, Workforce Transition and Employee Hiring Preferences; and
 - (ii) DOE, site tenants, and, if applicable, labor organizations representing Incumbent Employees.
- (3) Within 45 calendar days after NTP, the Contractor shall provide to the Contracting Officer a copy of the final WF Transition described in paragraph (A) above.
- (4) Within 70 calendar days after NTP, the Contractor shall provide to the Contracting Officer copies of the final transition agreements described in paragraph (A)(1)(b) above.
- (5) The Contractor shall submit reports to the Contracting Officer regarding the Contractor's and its subcontractors' implementation of the hiring preferences required by Clause H.4, Workforce Transition and Employee Hiring Preferences, including paragraph (A) regarding the right of first refusal in accordance with the timeframes set forth below. These reports shall include the following information: employee, hire date or anticipated hire dates; and, where applicable, the Incumbent Contractors or subcontractor that employed the employee and the Contractor or subcontractor that hired the employee.
- (a) During the 121 day Contract Transition Period, such reports shall be provided to the Contracting Officer on a weekly basis; or
 - (b) On a less frequent basis, if requested by the Contracting Officer.

- (6) The Contractor shall implement the transition activities as set forth in the approved transition plan and such other transition activities as may be authorized or directed by the Contracting Officer.

(B) Benefits Transition Plan. The Contractor shall submit a draft Benefits Transition Plan for the approval of the Contracting Officer, as set forth herein.

- (1) A detailed description of the Contractor's plans and procedures showing how the Contractor will comply with Clauses H.5 and H.6, and this Paragraph (B).
- (2) A detailed description of the Contractor's policies regarding pensions and other benefits for which the Department reimburses costs under this Contract, and how these policies will support at reasonable cost the effective recruitment and retention of a highly skilled, motivated, and experienced workforce.
- (3) A written description of how pension and other benefit plans provided to employees pursuant to Clauses H.5 and H.6, will be developed and implemented on or before the last day of the 121 day Transition Period.
- (4) A written description of how the existing pension and other benefits plans provided to employees pursuant to Clauses H.5 and H.6, will be amended or restated on or before the last day of the 121 day Transition Period.
- (5) The Contractor shall perform the following activities involving benefit transition within the timeframes specified below.

(a) Within 20 calendar days after NTP, the Contractor shall:

- (1) Provide the Contracting Officer with a list of Contractor personnel who will be responsible for transitioning into the ETTP MEPP, the ETTP MEWA, or other existing benefit plans and/or development of new benefits plans, including specifically the personnel responsible for ensuring that the Contractor becomes a sponsor/ participating employer of the ETTP MEPP and/or ETTP MEWA and/or other existing benefit plans and contact information for the above personnel;
- (2) Request FFS, LSRS, and UCOR to provide information and documents necessary for the Contractor to adhere to the requirements set forth in this Contract pertaining to sponsorship of the ETTP MEPP, the ETTP MEWA and other existing benefits plans or establishment of any new benefits plans, including but not limited to the transition of the existing pension and other benefit plans on or before the end of the 121-day Contract Transition Period.

- (3) Provide estimated costs and detailed breakouts of the costs to accomplish workforce and benefits transition activities within the timeframes specified, including the costs for enrolled actuaries and counsel.
- (b) Within 30 days after NTP, the Contractor shall provide to the Contracting Officer:
 - (1) A list of the information and documents that the Contractor has requested from UCOR, and, FFS pertaining to the transition into the ETTP MEPP, the ETTP MEWA, and other existing benefit plans. The Contractor shall notify the Contracting Officer on a timely basis of any issues or problems that it encounters in obtaining information or documents requested from UCOR, or FFS. Regardless of such notification, the Contractor remains responsible under this Contract for ensuring compliance with the terms of this Contract, including the timeframes set forth in this clause and the requirements in Clause H.4, Workforce Transition and Employee Hiring Preferences, Clause H.5, Employee Compensation: Pay and Benefits, and Clause H.6, Special Provisions Applicable to Workforce Transition and Employee Compensation: Pay and Benefits
- (c) Within 45 days after NTP, the Contractor shall:
 - (1) Provide its final draft Benefits Transition Plan; and
 - (2) Submit a detailed description of its plans and processes, including timeframes and specific projected dates for accomplishment of each activity necessary to ensure compliance with the requirements set forth in Clause H.5 and H.6, including requirements pertaining to the establishment of employee benefit plans; and
 - (3) Meet via televideo, teleconference, and/or in person with relevant personnel who administer the benefit plans for UCOR, and FFS, if and when necessary. The meeting shall include the Contractor's benefit plan administrators and personnel, head of human resources, ERISA counsel, actuaries, and any and all other personnel deemed necessary by the Contractor. During such meeting, the Contractor shall discuss all matters necessary to ensure the Contractor adheres to its obligations under Clause H.5 and H.6, including execution of transition agreements with UCOR, and FFS as applicable.
- (d) Within 60 days after NTP, the Contractor shall provide a final written Benefits Transition Plan to the Contracting Officer.
- (e) Within 60 days after NTP, the Contractor shall:

- (1) Provide to the Contracting Officer draft or proposed final versions of the following documents as set forth below –
 - (i) drafts of all amendments to or restatements of the pension and other benefit plans presently sponsored by UCOR, or any other existing benefit plans it plans to participate in, including but not limited to, amendments effectuating the change in sponsorship/participating employer in the ETTP MEPP and any other existing DB pension plan. If applicable, the Contractor shall also submit all draft restated benefit plans and draft Summary Plan Descriptions (SPDs) for pension and other benefit plans sponsored by UCOR or any other existing defined benefit plans it plans to participate in. Any and all such amendments shall comply with applicable law governing such transactions and changes in sponsorship of the plans.
 - (ii) drafts of any new benefit plan(s) as well as draft SPDs that the Contractor proposes to sponsor.
 - (iii) drafts of the transition agreements which the Contractor will enter into with UCOR and FFS to ensure the Contractor's compliance with the pay and benefits requirements set forth in Clauses H.5 and H.6
- (f) No later than 90 days after NTP, and prior to the adoption or execution of those documents, the Contractor shall submit to the Contracting Officer for approval the proposed final versions of the documents provided in paragraph (e) above.
- (g) The Contractor shall respond to any comments provided by the Contracting Officer under any of the above paragraphs within two days of receipt of the comments.
- (h) After the Contract Transition Period and throughout the remaining period of performance of the Contract, the Contractor shall provide the following information promptly to the Contracting Officer upon the request of the Contracting Officer:
 - (1) Documents relating to benefit plans offered to Contractor Employees, including but not limited to SPDs, all Plan documents, applicable amendments, employee handbooks that summarize benefits provided to employees, and other documents that describe benefits provided to employees of the Contractor who perform work on this Contract, and
 - (2) Any and all other documents pertaining to implementation of and compliance with implementation of the compensation and benefit programs identified in Clause H.5

- (3) Additionally, the contractor shall provide timely data responses to Departmental annual and ad hoc pension and PRB data requests. Such data responses shall be provided within the timeframe established by the contracting officer for each response and, if no timeframe is specified, the contractor shall provide the data response within one calendar day.

H.8 DOE-H-2004 POST CONTRACT RESPONSIBILITIES FOR PENSION AND OTHER BENEFIT PLANS (OCT 2014) (DEVIATION)

(A) If this Contract expires and/or terminates and DOE has awarded a contract under which a new contractor becomes a sponsor/participating employer and assumes responsibility for management and administration of the ETTP MEPP, the ETTP MEWA, pension or other benefit plans covering active or retired employees with respect to service at the Paducah Gaseous Diffusion Plant, (collectively, the "Plans"), the Contractor shall cooperate and transfer to the new contractor its responsibility for sponsorship, management and administration of the plans consistent with direction from the Contracting Officer. If a Commingled plan is involved, the Contractor shall:

- (1) Spin off the DOE portion of any Commingled Plan used to cover employees working at the DOE facilities into a separate plan. The new plan will normally provide benefits similar to those provided by the commingled plan and shall carry with it the DOE assets on an accrual basis market value, including DOE assets that have accrued in excess of DOE liabilities.
- (2) Bargain in good faith with DOE or the successor contractor to determine the assumptions and methods for establishing the liabilities involved in a spinoff. DOE and the contractor(s) shall establish an effective date of spinoff. On or before the same day as the contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(B) If this Contract expires or terminates and DOE has not awarded a contract to a new contractor under which the new contractor becomes a sponsor and assumes responsibility for management and administration of the Plans, or if the Contracting Officer determines that the scope of work under the Contract has been completed (any one such event may be deemed by the Contracting Officer to be "Contract Completion" for purposes of this clause), whichever is earlier, and notwithstanding any other obligations and requirements concerning expiration or termination under any other clause of this Contract, the following actions shall occur regarding the Contractor's obligations regarding the Plans at the time of Contract Completion:

- (1) Subject to subparagraph (2) below, and notwithstanding any legal obligations independent of the Contract the Contractor may have regarding responsibilities for sponsorship, management, and administration of the Plans, the Contractor

shall remain the sponsor of the Plans, in accordance with applicable legal requirements.

- (2) The parties shall exercise their best efforts to reach agreement on the Contractor's responsibilities for sponsorship, management and administration of the plans for which DOE reimburses costs, prior to or at the time of Contract Completion. However, if the parties have not reached agreement on the Contractor's responsibilities for sponsorship, management and administration of the Plans prior to or at the time of Contract Completion, unless and until such agreement is reached, the Contractor shall comply with written direction from the Contracting Officer regarding the Contractor's responsibilities for continued provision of pension and welfare benefits under the Plans, including but not limited to continued sponsorship of the Plans, in accordance with applicable legal requirements. To the extent that the Contractor incurs costs in implementing direction from the Contracting Officer, the Contractor's costs will be reimbursed pursuant to applicable Contract provisions.

H.9 DOE-H-2028 LABOR RELATIONS (OCT 2014) (DEVIATION)

- (A) The Contractor shall respect the right of employees to organize, form, join, or assist labor organizations; bargain collectively through their chosen labor representatives; engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection, and to refrain from any or all of these activities.
- (B) Consistent with applicable labor laws and regulations, for work currently performed by members of United Steel, Paper, and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers Union, Paducah Local 550 (USW), and the International Union, Security, Police, Fire, Professionals of America (SPFPA) on the effective date of this Contract, the Contractor agrees to initially consult with the unions regarding the initial terms and conditions of employment and to recognize the unions as the collective bargaining representative(s) for employees performing work covered in the scope of this contract, and to bargain in good faith to a collective bargaining agreement that gives due consideration to applicable terms and conditions of the existing collective bargaining agreement(s) for work at the Paducah Gaseous Diffusion Plant.
- (C) The Contractor shall submit its economic bargaining parameters for which DOE reimburses costs to, and obtain the approval of, the Contracting Officer regarding allowability of the costs, and compliance with the terms and conditions of the Contract, including those for pension and medical benefit costs, prior to the Contractor entering into the collective bargaining process. During the collective bargaining negotiations, the Contractor shall notify, and obtain the approval of, the Contracting Officer before submitting or agreeing to any collective bargaining proposal that increases or may increase allowable costs above those previously approved in the economic bargaining parameters, or that could involve changes in any pension or other benefit plans, and such other items of special interest to DOE as

are identified by the Contracting Officer. The preliminary approval of the Contracting Officer under this paragraph does not waive any other terms and conditions of the Contract.

- (D) The Contractor will seek to maintain harmonious bargaining relationships that reflect a judicious expenditure of public funds, equitable resolution of disputes and effective and efficient bargaining relationships consistent with the requirements of FAR Subpart 22.1, DEAR Subpart 970.2201, and all applicable Federal and state labor relations laws.
- (E) The Contractor shall use its best efforts to ensure that collective bargaining agreements negotiated under this Contract contain provisions designed to assure no disruption in services during the performance of the Contract. All such agreements entered into the Contract period of performance should, to the extent that the parties voluntarily agree, provide that grievances and disputes involving the interpretation or application of the agreement will be settled without resorting to strike, lockout or other disruption in services. For this purpose, each collective bargaining agreement should provide an effective grievance procedure with arbitration as its final step, unless the parties mutually agree upon some other method of assuring no disruption in services. The Contractor shall include the substance of this subparagraph (E) in any subcontracts.
- (F) In addition to FAR 52.222-1, Notice to the Government of Labor Disputes, and other requirements in the contract, the Contractor shall immediately notify the Contracting Officer or designee of all labor relations issues and matters of interest, including, but not limited to, organizing initiatives, unfair labor practice charges or complaints, work stoppages, picketing, labor arbitrations, National Labor Relations Board charges, legal or judicial proceedings, and settlement agreements and will furnish such additional information as may be required from time to time by the Contracting Officer.
- (G) The Contractor shall immediately notify the Contracting Officer or designee of any planned or actual strike or work stoppage involving its employees or employees of a subcontractor.
- (H) The Contractor shall provide the Contracting Officer or designee a copy of all arbitration decisions issued by an arbitrator within one week of receipt of the decision.
- (I) The Contractor shall provide the Contracting Officer with a "Report of Settlement" after ratification of a collective bargaining agreement by accessing and inputting the information into the Labor Relations module (GCLR) of DOE's iBenefits reporting system, or its successor system, during the next open quarter. Such information shall include negotiated wages, pension, medical and other benefits costs, and a copy of the collective bargaining agreement and any subsequent modifications.

- (J) The Contractor shall provide to the Contracting Officer a semi-annual report on grievances for which further judicial or administrative proceedings are anticipated, and all final step grievances. The Contractor shall immediately provide information on all arbitration requests. The reports are due June 30 and December 31, of each year, and should include the following information:
1. List of all final step grievances filed during the previous six-month period and grievances for which further judicial or administrative proceedings are anticipated, together with the dates filed;
 2. A brief description of issues regarding each grievance;
 3. If settled, the date of settlement, and terms of the settlement. If a denial is made at the final step and the period for requesting arbitration passes, report the matter as closed;
 4. If not settled during the six-month reporting period, carry the item over to the subsequent six-month reporting periods until settlement, request for arbitration, closure, or other proceeding occurs.

H.10 WORKFORCE RESTRUCTURING

- (a) The Contractor shall regularly analyze workforce requirements and will develop appropriate workforce restructuring strategies to ensure continued availability of the critical workforce knowledge, skills, and abilities necessary for performance under this Contract.
- (b) When the Contractor determines that a change in the workforce is necessary, the Contractor shall accomplish the workforce restructuring in a manner consistent with the DOE General Workforce Restructuring Plan, if applicable, in effect for the facility or site. The General Plan lays out how contractor workforce restructuring will be conducted at the applicable site in a manner that is consistent with DOE policy.

The Contractor is only required to provide notification of Self-Select Voluntary Separation Programs (SSVSP) of 100 or more if consistent with the following parameters: 1) in accordance with approved laboratory and contractor policies and contract requirements; 2) no enhanced benefits (severance or pension); 3) no backfilling or re-employment of employees for a one-year period after severance is paid; 4) business case submitted 5 business days in advance of notification date that includes maximum number of voluntary separations, maximum dollars, positions/skills impacted; reasons separations are needed, including how conducting a SSVSP will better position the contractor to conduct the mission work; copies of the self-select application and any employee waivers or releases of claims, and a communication plan; and 5) voluntary separations offered to employees in a non-discriminatory and legally compliant manner. There is no backfilling where a separating employee is replaced by an internal candidate so long as:

- (A) The separating employee is leaving voluntarily;

- (B) The internal replacement is a regular, permanent employee on the contractor's payroll, not a temporary hire, staff augmentee, or someone serving under a post-doctoral program, or other short term program;
 - (C) The replacement results in a net reduction in headcount and costs of regular employees; and
 - (D) The replacement is accomplished in an otherwise legally compliant manner, including no unlawful intent to discriminate based upon age.
- (c) The Contractor shall ensure it does not hire or rehire individuals who volunteered for termination during a Self-Select Voluntary Separation Program, at any DOE or NNSA site, during the one-year period following separation. If an employee is hired or rehired prior to the one-year period, the employee may be required to pay back, to the contractor who provided the severance payment, all or a pro-rata amount of the severance received under the Voluntary Separation Program.
- (d) The Contractor must prepare and submit to the Contracting Officer a specific workforce restructuring plan (Specific Plan), as described below in paragraph (e), if the Contractor intends to reduce its workforce by 100 or more employees through an involuntary separation action within a rolling 12-month period:
- (e) The Contractor's Specific Plan shall lay out how the Contractor will conduct its workforce restructuring action at the site. The Contractor's Specific Plan for reducing 100 or more employees through an involuntary separation action shall be submitted to the Contracting Officer for approval at least 60 days in advance of the first communication planned to be given to the employees and public. Any other Specific Plans must be submitted just in advance of the first communication planned to be given to the employees and public. The templates for contractor Involuntary Separation Plan, as well as the General Release and Waiver Forms, are available online at: <http://www.energy.gov/gc/services/technology-transfer-and-procurement/office-assistantgeneral-counsel-labor-and-pension>.
- (f) Pay-in-lieu of notice beyond two work-weeks requires written advance Contracting Officer approval. The Contractor shall submit the request to the Contracting Officer as part of the Workforce Restructuring package submitted for approval in (e) above, and include the number of days of pay-in-lieu of notice requested, above two work-weeks, a detailed business justification, and the associated costs.
- (g) The Contractor is encouraged to consider the use of employee waivers and releases. DOE has developed a model waiver and release of claims. The forms are available online at the website set forth in (e) above. Any deviation from the models must be approved by the Contracting Officer.
- (h) The Contractor must perform an adverse impact analysis (also known as a diversity analysis) as part of its determination to undertake involuntary separation action(s). A copy of the diversity analysis for involuntary separation action(s) affecting 100 or

more contractor employees within a rolling 12-month period shall be submitted to the Contracting Officer and DOE or National Nuclear Security Administration (NNSA) site counsel, as applicable, prior to notification of employees selected for involuntary separation.

- (i) The Contracting Officer will review and approve any Specific Plan or diversity analysis submitted for review affecting the reduction of 100 or more employees through an involuntary separation action within 10 business days after submission of a complete package by the Contractor unless the Contractor is notified of issues necessitating an extension of time. Should DOE request additional information from the Contractor regarding any Specific Plan or diversity analysis, the Contractor will respond to such request within 3 business days.
- (j) The Contractor is responsible and accountable for conducting and defending all voluntary and involuntary separation actions in compliance with applicable laws, regulations, and the contract terms and conditions.
- (k) Questions of cost allowability related to: a) any SSVSPs for which the Contractor provides only notification, or b) any involuntary separation program(s) conducted without Contracting Officer approval will be resolved consistently with applicable laws and regulations and with the terms and conditions of this contract, including, but not limited to, Department of Energy Acquisition Regulation (DEAR) at 48 C.F.R. 952.23171(f).

H.11 LABOR STANDARDS

- (A) The Contracting Officer will determine the appropriate labor standards that apply to specific work activities in accordance with the Wage Rate Requirements (Construction) statute (formerly known as the Davis-Bacon Act (DBA)), the Service Contract Labor Standards (SCLS) statute (formerly known as the Service Contract Act of 1965 (SCA)), or other applicable Federal labor standards law. Prior to the start of any proposed work activities, the Contractor shall request a labor standards determination from the Contracting Officer for specific work activities by submitting proposed work packages that describe the specific activities to be performed for particular work and other information as necessary for DOE to make a determination regarding the appropriate labor standard(s) for the work or aspects of the work. Once a determination is made and provided to the Contractor, the Contractor shall comply with the determination and shall ensure that appropriate labor standards clauses and requirements are flowed down to and incorporated into any applicable subcontracts.
- (B) The Contractor shall comply, and shall be responsible for compliance by any subcontractor, with the Wage Rate Requirements (Construction), the Service Contract Labor Standards, or other applicable labor standards law. The Contractor shall conduct such payroll and job-site reviews for construction work, including interviews with employees, with such frequency as may be necessary to assure compliance by its

subcontractors and as requested or directed by the DOE. When performing work subject to the Wage Rate Requirements (Construction), Contractor shall maintain payroll records for a period of three years from completion of the Contract, for laborers and mechanics performing the work. In accordance with FAR 52.222-41(g) and FAR 52.222-6(b)(4), the Contractor and its subcontractors shall post in a prominent job-site location, the wage determination and, as applicable, Department of Labor Publication: WH-1231, Notice to Employees Working on Federal or Federally Assisted Construction Projects and/or WH-1313, Notice to Employees Working on Government Contracts.

- (C) For subcontracts determined to be subject to the Service Contract Labor Standards, the Contractor will prepare Standard Form 98 (e98), Notice of Intention to Make a Service Contract and Response Notice. This form is available on the Department of Labor website at: <http://www.dol.gov/whd/govcontracts/sca/sf98/index.asp>. The form shall be submitted to the Contracting Officer.
- (D) In addition to any other requirements in the Contract, Contractor shall as soon as possible notify the Contracting Officer of all labor standards issues, including all complaints regarding incorrect payment of prevailing wages and/or fringe benefits, received from contractor or subcontractor employees; significant labor standards violations, as defined in 29 CFR 5.7; disputes concerning labor standards pursuant to 29 CFR parts 4,6, and 8 and as defined in FAR 52.222-41(t); disputed labor standards determinations; Department of Labor investigations; or legal or judicial proceedings related to the labor standards under this Contract or a subcontract. The Contractor shall furnish such additional information as may be required from time to time by the Contracting Officer.
- (E) The Contractor shall prepare and submit, to the Contracting Officer, the DBA Semi-Annual Enforcement Report, Form OMB 1910-5165, by April 21 and October 21 of each year. Form submittal will be administered through the iBenefits system (<https://ibenefits.energy.gov>) or its successor system.

H.12 DOE-H-2003 WORKER'S COMPENSATION INSURANCE (OCT 2014)

- (a) Contractors, other than those whose workers' compensation coverage is provided through a state funded arrangement or a corporate benefits program, shall submit to the Contracting Officer for approval all new compensation policies and all initial proposals for self-insurance (contractors shall provide copies to the Contracting Officer of all renewal policies for workers compensation).
- (b) Workers compensation loss income benefit payments, when supplemented by other programs (such as salary continuation, short-term disability) are to be administered so that total benefit payments from all sources shall not exceed 100 percent of the employee's net pay.

- (c) Contractors approve all workers compensation settlement claims up to the threshold established by the Contracting Officer for DOE approval and submit all settlement claims above the threshold to DOE for approval.
- (d) The Contractor shall obtain approval from the CO before making any significant change to its workers compensation coverage and shall furnish reports as may be required from time to time by the CO.

H.13 DOE-H-2049 INSURANCE REQUIREMENT (OCT 2014)

- (A) In accordance with the clause DEAR 952.231-71, Insurance-Litigation and Claims, the following types and minimum amounts of insurance shall be maintained by the Contractor:
 - (1) Workers' compensation – Amount in accordance with applicable Federal and State workers' compensation and occupational disease statutes.
 - (2) Employer's liability - \$100,000 (except in States with exclusive or monopolistic funds that do not permit worker's compensation to be written by private carriers).
 - (3) Comprehensive bodily injury liability - \$500,000.
 - (4) Property damage liability – None, unless otherwise required by the Contracting Officer.
 - (5) Comprehensive automobile bodily injury liability - \$200,000 per person and \$500,000 per occurrence.
 - (6) Comprehensive automobile property damage - \$20,000 per occurrence.
- (B) The Contractor shall provide evidence of such insurance, if requested by the Contracting Officer; and the Contracting Officer may require such evidence to be provided prior to the commencement of work under the contract.

H.14 DOE-H-2057 DEPARTMENT OF LABOR WAGE DETERMINATIONS (OCT 2014)(DEVIATION)

The Contractor's performance under this contract shall comply with the requirements of U.S. Department of Labor Wage Determination(s) located in Section J, Attachment J-10.

H.15 DOE-H-2073 RISK MANAGEMENT AND INSURANCE PROGRAMS (DEC 2014)

Contractor officials shall ensure that the requirements set forth below are applied in the establishment and administration of DOE-funded prime cost reimbursement contracts for management and operation of DOE facilities and other designated long-lived onsite contracts for which the contractor has established separate operating business units.

(A) BASIC REQUIREMENTS

- (1) Maintain commercial insurance or a self-insured program, (i.e., any insurance policy or coverage that protects the contractor from the risk of legal liability for adverse actions associated with its operation, including malpractice, injury, or negligence) as required by the terms of the contract. Types of insurance include automobile, general liability, and other third party liability insurance. Other forms of coverage must be justified as necessary in the operation of the Department facility and/or the performance of the contract, and approved by the DOE.
- (2) Contractors shall not purchase insurance to cover public liability for nuclear incidents without DOE authorization (See DEAR 970.5070, Indemnification, and DEAR 950.70, Nuclear Indemnification of DOE Contractors).
- (3) Demonstrate that insurance programs and costs comply with the cost limitations and exclusions at FAR 28.307, Insurance Under Cost Reimbursement Contracts, FAR 31.205-19, Insurance and Indemnification, DEAR 952.231-71 Insurance-Litigation and Claims, and DEAR 970.5228-1, Insurance-Litigation and Claims.
- (4) Demonstrate that the insurance program is being conducted in the government's best interest and at reasonable cost.
- (5) The contractor shall submit copies of all insurance policies or insurance arrangements to the Contracting Officer no later than 30 days after the purchase date.
- (6) When purchasing commercial insurance, the contractor shall use a competitive process to ensure costs are reasonable.
- (7) Ensure self-insurance programs include the following elements:
 - (a) Compliance with criteria set forth in FAR 28.308, Self-Insurance. Approval of self-insurance is predicated upon submission of verifiable proof that the self-insurance charge does not exceed the cost of purchased insurance. This includes hybrid plans (i.e., commercially purchased insurance with self-insured retention (SIR) such as large deductible, matching deductible, retrospective rating cash flow plans, and other plans where insurance reserves are under the control of the insured). The SIR components of such plans are self-insurance and are subject to the approval and submission requirements of FAR 28.308, as applicable.

- (b) Demonstration of full compliance with applicable state and federal regulations and related professional administration necessary for participation in alternative insurance programs.
- (c) Safeguards to ensure third party claims and claims settlements are processed in accordance with approved procedures.
- (d) Accounting of self-insurance charges.
- (e) Accrual of self-insurance reserve. The Contracting Officer's approval is required and predicated upon the following:
 - i. The claims reserve shall be held in a special fund or interest bearing account.
 - ii. Submission of a formal written statement to the Contracting Officer stating that use of the reserve is exclusively for the payment of insurance claims and losses, and that DOE shall receive its equitable share of any excess funds or reserve.
 - iii. Annual accounting and justification as to the reasonableness of the claims reserve submitted for Contracting Officer's review.
 - iv. Claim reserves, not payable within the year the loss occurred, are discounted to present value based on the prevailing Treasury rate.
- (f) Separately identify and account for interest cost on a Letter of Credit used to guarantee self-insured retention, as an unallowable cost and omitted from charges to the DOE contract.
- (g) Comply with the Contracting Officer's written direction for ensuring the continuation of insurance coverage and settlement of incurred and/or open claims and payments of premiums owed or owing to the insurer for prior DOE contractors.

(B) PLAN EXPERIENCE REPORTING.

The Contractor shall:

- (1) provide the Contracting Officer with annual experience reports for each type of insurance (e.g., automobile and general liability), listing the following for each category:
 - (A) The amount paid for each claim.
 - (B) The amount reserved for each claim.
 - (C) The direct expenses related to each claim.
 - (D) A summary for the year showing total number of claims.
 - (E) A total amount for claims paid.
 - (F) A total amount reserved for claims.
 - (G) The total amount of direct expenses.

- (2) provide the Contracting Officer with an annual report of insurance costs and/or self-insurance charges. When applicable, separately identify total policy expenses (e.g., commissions, premiums, and costs for claims servicing) and major claims during the year, including those expected to become major claims (e.g., those claims valued at \$100,000 or greater).
- (3) provide additional claim financial experience data as may be requested on a case-by-case basis.

(C) TERMINATING OPERATIONS.

The Contractor shall:

- (1) ensure protection of the government's interest through proper recording of cancellation credits due to policy terminations and/or experience rating.
- (2) identify and provide continuing insurance policy administration and management requirements to a successor, other DOE contractor, or as specified by the Contracting Officer.
- (3) reach agreement with DOE on the handling and settlement of self-insurance claims incurred but not reported at the time of contract termination; otherwise, the contractor shall retain this liability.

(D) SUCCESSOR CONTRACTOR OR INSURANCE POLICY CANCELLATION.

The Contractor shall:

- (1) obtain the written approval of the Contracting Officer for any change in program direction; and
- (2) ensure insurance coverage replacement is maintained as required and/or approved by the Contracting Officer.

II. BUSINESS SYSTEMS CLAUSES

H.16 DOE-H-2022 CONTRACTOR BUSINESS SYSTEMS (OCT 2014)

(A) Definitions. As used in this clause-

Acceptable contractor business systems means contractor business systems that comply with the terms and conditions of the applicable business system clauses listed in the definition of "contractor business systems" in this clause.

Contractor business systems means—

- (1) Accounting system, if this contract includes the Section H clause Accounting System Administration;

- (2) Earned value management system, if this contract includes the Section H clause Earned Value Management System;
- (3) Estimating system, if this contract includes the Section H clause Cost Estimating System Requirements;
- (4) Property management system, if this contract includes the Section H clause Contractor Property Management System Administration; and
- (5) Purchasing system, if this contract includes the Section H clause Contractor Purchasing System Administration.

Significant deficiency, in the case of a contractor business system, means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

(B) General. The Contractor shall establish and maintain acceptable business systems in accordance with the terms and conditions of this contract. If the Contractor plans to adopt any existing business system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system requirements and criteria required in that specific business system clause.

(C) Significant deficiencies.

- (1) The Contractor shall respond, in writing, within 30 days to an initial determination that there are one or more significant deficiencies in one or more of the Contractor's business systems.
- (2) The Contracting Officer will evaluate the Contractor's response and notify the Contractor, in writing, of the final determination as to whether the Contractor's business system contains significant deficiencies. If the Contracting Officer determines that the Contractor's business system contains significant deficiencies, the final determination will include a notice to withhold payments.

(D) Withholding payments.

- (1) If the Contracting Officer issues the final determination with a notice to withhold payments for significant deficiencies in a contractor business system required under this contract, the Contracting Officer will direct the Contractor, in writing, to withhold five percent from its invoices until the Contracting Officer has determined that the Contractor has corrected all significant deficiencies as directed by the Contracting Officer's final determination. The Contractor shall, within 45 days of receipt of the notice, either—
 - i. Correct the deficiencies; or
 - ii. Submit an acceptable corrective action plan showing milestones and actions to eliminate the deficiencies. The plan shall contain—
 - (a) Root cause(s) identification of the problem(s);
 - (b) The proposed corrective action(s) to address the root cause(s);
 - (c) A schedule for implementation; and
 - (d) The name of the person responsible for the implementation.

- (2) If the Contractor submits an acceptable corrective action plan within 45 days of receipt of a notice of the Contracting Officer's intent to withhold payments, and the Contracting Officer, in consultation with the auditor or functional specialist, determines that the Contractor is effectively implementing such plan, the Contracting Officer will direct the Contractor, in writing, to reduce the percentage withheld on invoices to two percent until the Contracting Officer determines the Contractor has corrected all significant deficiencies as directed by the Contracting Officer's final determination. However, if at any time, the Contracting Officer determines that the Contractor has failed to follow the accepted corrective action plan, the Contracting Officer will increase withholding and direct the Contractor, in writing, to increase the percentage withheld on invoices to the percentage initially withheld, until the Contracting Officer determines that the Contractor has corrected all significant deficiencies as directed by the Contracting Officer's final determination.
- (3) Payment withhold percentage limits.
- i. The total percentage of payments withheld on amounts due on this contract shall not exceed— -
 - (A) Five percent for one or more significant deficiencies in any single contractor business system; and
 - (B) Ten percent for significant deficiencies in multiple contractor business systems.
 - ii. If this contract contains pre-existing withholds, and the application of any subsequent payment withholds will cause withholding under this clause to exceed the payment withhold percentage limits in paragraph (d)(3)(i) of this clause, the Contracting Officer will reduce the payment withhold percentage in the final determination to an amount that will not exceed the payment withhold percentage limits.
- (4) For the purpose of this clause, payment means invoicing for any of the following payments authorized under this contract:
- i. Interim payments under— -
 - (a) Cost-reimbursement contracts;
 - (b) Incentive type contracts;
 - (c) Time-and-materials contracts; or
 - (d) Labor-hour contracts.
 - ii. Progress payments to include fixed-price contracts.
 - iii. Performance-based payments to include fixed-price contracts.
- (5) Payment withholding shall not apply to payments on fixed-price line items where performance is complete and the items were accepted by the Government.

- (6) The withholding of any amount or subsequent payment to the Contractor shall not be construed as a waiver of any rights or remedies the Government has under this contract.
 - (7) Notwithstanding the provisions of any clause in this contract providing for interim, partial, or other payment withholding on any basis, the Contracting Officer may withhold payment in accordance with the provisions of this clause.
 - (8) The payment withholding authorized in this clause is not subject to the interest-penalty provisions of the Prompt Payment Act.
- (E) Correction of deficiencies.
- (1) The Contractor shall notify the Contracting Officer, in writing, when the Contractor has corrected the business system's deficiencies.
 - (2) Once the Contractor has notified the Contracting Officer that all deficiencies have been corrected, the Contracting Officer will take one of the following actions:
 - i. If the Contracting Officer determines that the Contractor has corrected all significant deficiencies as directed by the Contracting Officer's final determination, the Contracting Officer will direct the Contractor, in writing, to discontinue the payment withholding from invoices under this contract associated with the Contracting Officer's final determination, and authorize the Contractor to bill for any monies previously withheld that are not also being withheld due to other significant deficiencies. Any payment withholding under this contract due to other significant deficiencies, will remain in effect until the Contracting Officer determines that those significant deficiencies are corrected.
 - ii. If the Contracting Officer determines that the Contractor still has significant deficiencies, the Contractor shall continue withholding amounts from its invoices in accordance with paragraph (d) of this clause, and not invoice for any monies previously withheld.
 - iii. If the Contracting Officer determines, based on the evidence submitted by the Contractor, that there is a reasonable expectation that the corrective actions have been implemented and are expected to correct the significant deficiencies, the Contracting Officer will discontinue withholding payments, and release any payments previously withheld directly related to the significant deficiencies identified in the Contractor notification, and direct the Contractor, in writing, to discontinue the payment withholding from invoices associated with the Contracting Officer's final determination, and authorize the Contractor to bill for any monies previously withheld.
 - iv. If, within 90 days of receipt of the Contractor notification that the Contractor has corrected the significant deficiencies, the Contracting Officer

has not made a determination in accordance with paragraphs (e)(2)(i), (ii), or (iii) of this clause, the Contracting Officer will direct the Contractor, in writing, to reduce the payment withholding from invoices directly related to the significant deficiencies identified in the Contractor notification by a specified percentage that is at least 50 percent, but not authorize the Contractor to bill for any monies previously withheld until the Contracting Officer makes a determination in accordance with paragraphs (e)(2)(i), (ii), or (iii) of this clause.

- v. At any time after the Contracting Officer directs the Contractor to reduce or discontinue the payment withholding from invoices under this contract, if the Contracting Officer determines that the Contractor has failed to correct the significant deficiencies identified in the Contractor's notification, the Contracting Officer will reinstate or increase withholding and direct the Contractor, in writing, to reinstate or increase the percentage withheld on invoices to the percentage initially withheld, until the Contracting Officer determines that the Contractor has corrected all significant deficiencies as directed by the Contracting Officer's final determination.

H.17 DOE-H-2023 COST ESTIMATING SYSTEM REQUIREMENTS (OCT 2014)

(A) Definitions.

-Acceptable estimating system means an estimating system that complies with the system criteria in paragraph (d) of this clause, and provides for a system that— -

- (1) Is maintained, reliable, and consistently applied;
- (2) Produces verifiable, supportable, documented, and timely cost estimates that are an acceptable basis for negotiation of fair and reasonable prices;
- (3) Is consistent with and integrated with the Contractor's related management systems; and
- (4) Is subject to applicable financial control systems.

-Estimating system means the Contractor's policies, procedures, and practices for budgeting and planning controls, and generating estimates of costs and other data included in proposals submitted to customers in the expectation of receiving contract awards or contract modifications. Estimating system includes the Contractor's— -

- (1) Organizational structure;
- (2) Established lines of authority, duties, and responsibilities;
- (3) Internal controls and managerial reviews;
- (4) Flow of work, coordination, and communication; and
- (5) Budgeting, planning, estimating methods, techniques, accumulation of historical costs, and other analyses used to generate cost estimates.

-Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

- (B) General. The Contractor shall establish, maintain, and comply with an acceptable estimating system.
- (C) Applicability. Paragraphs (d) and (e) of this clause apply if the Contractor is a large business to include a contractor teaming arrangement, as defined at 48 CFR 9.601(1), performing a contract in support of a Capital Asset Project (other than a management and operating contract as described at 917.6), as prescribed in DOE Order (DOE O) 413.3B, or current version; or a non-capital asset project and either—
- (1) The total prime contract value exceeds \$50 million, including options; or
 - (2) The Contractor was notified, in writing, by the Contracting Officer that paragraphs (d) and (e) of this clause apply.
- (D) System requirements.
- (1) The Contractor shall disclose its estimating system to the Contracting Officer, in writing. If the Contractor wishes the Government to protect the information as privileged or confidential, the Contractor must mark the documents with the appropriate legends before submission. If the Contractor plans to adopt the existing system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system requirements required in this clause.
 - (2) An estimating system disclosure is acceptable when the Contractor has provided the Contracting Officer with documentation no later than 60 days after contract award that-
 - i. Accurately describes those policies, procedures, and practices that the Contractor currently uses in preparing cost proposals; and
 - ii. Provides sufficient detail for the Government to reasonably make an informed judgment regarding the acceptability of the Contractor's estimating practices.
 - (3) The Contractor shall—
 - i. Comply with its disclosed estimating system; and
 - ii. Disclose significant changes to the cost estimating system to the Contracting Officer on a timely basis.
 - a. The Contractor's estimating system shall provide for the use of appropriate source data, utilize sound estimating techniques and good judgment, maintain a consistent approach, and adhere to established policies and procedures. An acceptable estimating system shall accomplish the following functions:
 - (i) Establish clear responsibility for preparation, review, and approval of cost estimates and budgets.

- (ii) Provide a written description of the organization and duties of the personnel responsible for preparing, reviewing, and approving cost estimates and budgets.
- (iii) Ensure that relevant personnel have sufficient training, experience, and guidance to perform estimating and budgeting tasks in accordance with the Contractor's established procedures.
- (iv) Identify and document the sources of data and the estimating methods and rationale used in developing cost estimates and budgets.
- (v) Provide for adequate supervision throughout the estimating and budgeting process.
- (vi) Provide for consistent application of estimating and budgeting techniques.
- (vii) Provide for detection and timely correction of errors.
- (viii) Protect against cost duplication and omissions.
- (ix) Provide for the use of historical experience, including historical vendor pricing information, where appropriate.
- (x) Require use of appropriate analytical methods.
- (xi) Integrate information available from other management systems.
- (xii) Require management review, including verification of compliance with the company's estimating and budgeting policies, procedures, and practices.
- (xiii) Provide for internal review of, and accountability for, the acceptability of the estimating system, including the budgetary data supporting indirect cost estimates and comparisons of projected results to actual results, and an analysis of any differences.
- (xiv) Provide procedures to update cost estimates and notify the Contracting Officer in a timely manner.
- (xv) Provide procedures that ensure subcontract prices are reasonable based on a documented review and analysis provided with the prime proposal, when practicable.

(xvi) Provide estimating and budgeting practices that consistently generate sound proposals that are compliant with the provisions of the solicitation and are adequate to serve as a basis to reach a fair and reasonable price.

(xvii) Have an adequate system description, including policies, procedures, and estimating and budgeting practices, that comply with the Federal Acquisition Regulation (48 CFR chapter 1) and Department of Energy Acquisition Regulation (48 CFR chapter 9).

(E) Significant deficiencies.

- (1) The Contracting Officer will provide an initial determination to the Contractor, in writing, of any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.
- (2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's estimating system. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial determination within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.
- (3) The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning—
 - i. Remaining significant deficiencies;
 - ii. The adequacy of any proposed or completed corrective action; and
 - iii. System disapproval, if the Contracting Officer determines that one or more significant deficiencies remain.

(F) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

(G) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's estimating system, and the contract includes the Section H clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

**H.18 DOE-H-2024 EARNED VALUE MANAGEMENT SYSTEM (OCT 2014)
(DEVIATION)**

(A) Definitions. As used in this clause—

- Acceptable earned value management system means an earned value management system that generally complies with system criteria in paragraph (b) of this clause.
- Earned value management system means an earned value management system that complies with the earned value management system guidelines in the EIA-748.
- Over Target Baseline means an overrun to the Contract Budget Base (CBB) which is formally incorporated into the Performance Measurement Baseline (PMB) for management purposes.
- Over Target Schedule means the term used to describe a condition where a baseline schedule is time-phased beyond the contract completion date.
- Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

(B) System criteria. In the performance of this contract, the Contractor shall use-

- (1) An Earned Value Management System (EVMS) that complies with the EVMS guidelines in the Electronic Industries Alliance Standard 748, Earned Value Management Systems (EIA-748, current version at time of award); and

- (2) Management procedures.

- i. Management procedures provide for generation of timely, reliable, and verifiable information for DOE Integrated Program Management Report (IPMR) data item of this contract.
- ii. The Contractor shall use Department of Defense's Data Item Description (DID) Integrated Program Management Report (IPMR), DI-MGMT-81861, (current version at time of award) which contains data for measuring cost and schedule performance for this DOE contract. The report's structure has seven formats that contain the content and relationships required for electronic submissions. DOE does not use section 2.8 Applicability of DI-MGMT-81861 for electronic data submissions, in lieu of this section, the Contractor shall use Project Assessment and Reporting System (PARS II). Data shall be submitted by the Contractor electronically by uploading the data into the PARS II in accordance with the "Contractor Project Performance Upload Requirements" document maintained by the DOE Office of Acquisition and Project Management (OAPM). All requested data shall be submitted timely and accurately, and shall be current as of the close of the previous month's accounting period.

(C) If the Contractor has one or more DOE contracts valued at \$20,000,000 or greater per contract for a total contract value of \$50,000,000 or more which support DOE Capital Asset Projects, the Contractor shall use an EVMS that has been determined to be acceptable by DOE. If, at the time of award, the Contractor's EVMS has not been determined by DOE to be in compliance with the EVMS guidelines as stated in paragraph (b)(1) of this clause, the Contractor shall apply its current system to the contract and shall take necessary actions to meet the milestones in the Contractor's EVMS plan.

- (D) If this contract has a total value of less than \$50,000,000 and does not meet the condition described at (c) above, the Government will not make a formal determination that the Contractor's EVMS complies with the EVMS guidelines in EIA-748 with respect to the contract. The use of the Contractor's EVMS for this contract does not imply a Government determination of the Contractor's compliance with the EVMS guidelines in EIA-748 for application to future contracts.
- (E) The Contractor shall submit notification of all proposed changes to the EVMS procedures and the impact of those changes to DOE. If this contractor has one or more contracts in support of DOE Capital Asset Projects and the total contract values are \$20,000,000 or greater per contract for total contract values of \$50,000,000 or more, unless a waiver is granted by DOE, any EVMS changes proposed by the Contractor require approval of DOE prior to implementation. DOE will advise the Contractor of the acceptability of such changes as soon as practicable (generally within 30 calendar days) after receipt of the Contractor's notice of proposed changes. If DOE waives the advance approval requirements, the Contractor shall disclose EVMS changes to DOE at least 14 calendar days prior to the effective date of implementation.
- (F) Integrated baseline reviews.
- (1) The purpose of the integrated baseline reviews (IBR) is to verify the technical content and the realism of the related performance budgets, resources, and schedules. It should provide a mutual understanding of the inherent risks in the offerors'/contractors' performance plans and the underlying management control systems, and it should formulate a plan to handle these risks. DOE and the Contractor will use the IBR process described in the National Defense Industrial Association Program Management Systems Committee Integrated Baseline Review (NDIA PMSC IBR) Guide (current version at time of award).
 - (2) The Government will schedule IBRs as early as practicable, and the review process will be conducted not later than 180 calendar days after—
 - i. Contract award;
 - ii. The exercise of significant contract options; and
 - iii. The incorporation of major modifications.

During such reviews, the Government and the Contractor will jointly assess the Contractor's baseline to be used for performance measurement to ensure complete coverage of the statement of work, logical scheduling of the work activities, adequate resourcing, and identification of inherent risks.

- (G) The Contractor shall provide access to all pertinent records and data requested by the Contracting Officer or duly authorized representative as necessary to permit

Government surveillance to ensure that the EVMS complies, and continues to comply, with the performance criteria referenced in paragraph (b) of this clause.

(H) When indicated by contract performance, the Contractor shall submit a request for approval to initiate an over-target baseline or over-target schedule to the Contracting Officer. The request shall include a top-level projection of cost and/or schedule growth, a determination of whether or not performance variances will be retained, and a schedule of implementation for the re-baselining. The Government will acknowledge receipt of the request in a timely manner (generally within 30 calendar days).

(I) Significant deficiencies.

(1) The Contracting Officer will provide an initial determination to the Contractor, in writing, on any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.

(2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's EVMS. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial determination within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.

(3) The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning—

- i. Remaining significant deficiencies;
- ii. The adequacy of any proposed or completed corrective action;
- iii. System noncompliance, when the Contractor's existing EVMS fails to comply with the earned value management system guidelines in the EIA-748; and
- iv. System disapproval, if initial EVMS validation is not successfully completed within the timeframe approved by the Contracting Officer, or if the Contracting Officer determines that the Contractor's earned value management system contains one or more significant deficiencies in high-risk guidelines in EIA-748 standards (guidelines 1, 3, 6, 7, 8, 9, 10, 12, 16, 21, 23, 26, 27, 28, 30, or 32). When the Contracting Officer determines that the existing earned value management system contains one or more significant deficiencies in one or more of the remaining 16 guidelines in EIA-748 standards, the contracting officer will use discretion to disapprove

the system based on input received from the DOE Office of Acquisition and Project Management or the DOE Program Office, herein referred to as the functional specialists.

- (4) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.
- (J) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's EVMS, and the contract includes the Section H clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.
- (K) With the exception of paragraphs (I) and (J) of this clause, for contracts valued at \$20 million or more requiring EVMS, the contractor shall flow down appropriate EVMS requirements to its subcontractors in order for the contractor to meet all requirements of this clause.

[REDACTED]

- (L) Adopting previous Contractor's previously certified earned value management (EVM) process. If the Contractor plans to adopt the existing system from the previous Contractor or DOE-site, the Contractor is responsible for the system and shall comply with the system requirements required in this clause. The existing system shall utilize the same DOE approved EVM Process Description and the same EVM training as the previous system. The Contractor shall—
- (1) Identify the corporate entity which owns the certified EVM process and provide the certification documentation;
 - (2) Obtain DOE prior approval or Advanced Agreement including DOE approval of process changes and joint surveillance;
 - (3) Be responsible for compliance with the system criteria required in paragraph (b) of this clause; and
 - (4) Be responsible for correcting any significant deficiencies previously identified to the previous Contractor by the Contracting Officer in accordance with paragraph (i) of this clause. Within 45 days after receiving a copy of the previous contractor's final determination, the Contractor shall follow paragraph (i)(4) and either correct any significant deficiencies or submit an acceptable corrective

action plan. The Contracting Officer or designee, will provide a copy of the previous contractor's final determination.

H.19 DOE-H-2025 ACCOUNTING SYSTEM ADMINISTRATION (OCT 2014)

(A) Definitions. As used in this clause—

- (1) Acceptable accounting system means a system that complies with the system criteria in paragraph (c) of this clause to provide reasonable assurance that—
 - (i) Applicable laws and regulations are complied with;
 - (ii) The accounting system and cost data are reliable;
 - (iii) Risk of misallocations and mischarges are minimized; and
 - (iv) Contract allocations and charges are consistent with billing procedures.
- (2) Accounting system means the Contractor's system or systems for accounting methods, procedures, and controls established to gather, record, classify, analyze, summarize, interpret, and present accurate and timely financial data for reporting in compliance with applicable laws, regulations, and management decisions, and may include subsystems for specific areas such as indirect and other direct costs, compensation, billing, labor, and general information technology.
- (3) Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

(B) General.

The Contractor shall establish and maintain an acceptable accounting system. If the Contractor plans to adopt the existing system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system criteria required in this clause. The Contractor shall provide in writing to the Contracting Officer documentation that its accounting system meets the system criteria in paragraph (c) of this clause no later than 60 days after contract award. Failure to maintain an acceptable accounting system, as defined in this clause, shall result in the withholding of payments if the contract includes the Section H clause Contractor Business Systems, and also may result in disapproval of the system.

System criteria.

(C) The Contractor's accounting system shall provide for—

- (a) A sound internal control environment, accounting framework, and organizational structure;
- (b) Proper segregation of direct costs from indirect costs;

- (c) Identification and accumulation of direct costs by contract;
- (d) A logical and consistent method for the accumulation and allocation of indirect costs to intermediate and final cost objectives;
- (e) Accumulation of costs under general ledger control;
- (f) Reconciliation of subsidiary cost ledgers and cost objectives to general ledger;
- (g) Approval and documentation of adjusting entries;
- (h) Management reviews or internal audits of the system to ensure compliance with the Contractor's established policies, procedures, and accounting practices;
- (i) A timekeeping system that identifies employees' labor by intermediate or final cost objectives;
- (j) A labor distribution system that charges direct and indirect labor to the appropriate cost objectives;
- (k) Interim (at least monthly) determination of costs charged to a contract through routine posting of books of account;
- (l) Exclusion from costs charged to Government contracts of amounts which are not allowable in terms of 48 CFR part 31, Contract Cost Principles and Procedures, and other contract provisions;
- (m) Identification of costs by contract line item and by units (as if each unit or line item were a separate contract), if required by the contract;
- (n) Segregation of preproduction costs from production costs, as applicable;
- (o) Cost accounting information, as required—
 - i. By contract clauses concerning limitation of cost (48 CFR 52.232-20), limitation of funds (48 CFR 52.232-22), or allowable cost and payment (48 CFR 52.216-7); and
 - ii. To readily calculate indirect cost rates from the books of accounts;
- (p) Billings that can be reconciled to the cost accounts for both current and cumulative amounts claimed and comply with contract terms;
- (q) Adequate, reliable data for use in pricing follow-on acquisitions; and
- (r) Accounting practices in accordance with standards promulgated by the Cost Accounting Standards Board, if applicable, otherwise, Generally Accepted Accounting Principles.

(D) Significant deficiencies.

- (1) The Contracting Officer will provide an initial determination to the Contractor, in writing, on any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.
- (2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's accounting system. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial determination

within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.

- (3) The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning—
- i. Remaining significant deficiencies;
 - ii. The adequacy of any proposed or completed corrective action; and
 - iii. System disapproval, if the Contracting Officer determines that one or more significant deficiencies remain.

(E) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

(F) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's accounting system, and the contract includes the Section H clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

H.20 DOE-H-2026 CONTRACTOR PURCHASING SYSTEM ADMINISTRATION (OCT 2014)

(A) Definitions. As used in this clause—

-Acceptable purchasing system means a purchasing system that complies with the system criteria in paragraph (c) of this clause.

-Purchasing system means the Contractor's system or systems for purchasing and subcontracting, including make-or-buy decisions, the selection of vendors, analysis of quoted prices, negotiation of prices with vendors, placing and administering of orders, and expediting delivery of materials.

-Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

(B) General.

The Contractor shall establish and maintain an acceptable purchasing system. If the Contractor plans to adopt the existing system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system criteria required in this clause. The Contractor shall provide in writing to the Contracting Officer documentation that its purchasing system meets the system criteria in paragraph (c) of this clause no later than 60 days after contract award. Failure to maintain an acceptable purchasing system, as defined in this clause, may result in disapproval of the system by the Contracting Officer and/or withholding of payments.

(C) System criteria.

The Contractor's purchasing system shall—

- (1) Have an adequate system description including policies, procedures, and purchasing practices that comply with the Federal Acquisition Regulation (FAR) (48 CFR Chapter 1) and the Department of Energy Acquisition Regulation (48 CFR Chapter 9);
- (2) Ensure that all applicable purchase orders and subcontracts contain all flowdown clauses, including terms and conditions and any other clauses needed to carry out the requirements of the prime contract;
- (3) Maintain an organization plan that establishes clear lines of authority and responsibility;
- (4) Ensure all purchase orders are based on authorized requisitions and include a complete and accurate history of purchase transactions to support vendor selected, price paid, and document the subcontract/purchase order files which are subject to Government review;
- (5) Establish and maintain adequate documentation to provide a complete and accurate history of purchase transactions to support vendors selected and prices paid;
- (6) Apply a consistent make-or-buy policy that is in the best interest of the Government;
- (7) Use competitive sourcing to the maximum extent practicable, and ensure debarred or suspended contractors are properly excluded from contract award;
- (8) Evaluate price, quality, delivery, technical capabilities, and financial capabilities of competing vendors to ensure fair and reasonable prices;
- (9) Require management level justification and adequate cost or price analysis, as applicable, for any sole or single source award;
- (10) Perform timely and adequate cost or price analysis and technical evaluation for each subcontractor and supplier proposal or quote to ensure fair and reasonable subcontract prices;
- (11) Document negotiations in accordance with 48 CFR 15.406-3;
- (12) Seek, take, and document economically feasible purchase discounts, including cash discounts, trade discounts, quantity discounts, rebates, freight allowances, and company-wide volume discounts;

- (13) Ensure proper type of contract selection and prohibit issuance of cost-plus-a-percentage-of-cost subcontracts;
- (14) Maintain subcontract surveillance to ensure timely delivery of an acceptable product and procedures to notify the Government of potential subcontract problems that may impact delivery, quantity, or price;
- (15) Document and justify reasons for subcontract changes that affect cost or price;
- (16) Notify the Government of the award of all subcontracts that contain the 48 CFR Chapter 1 and 48 CFR Chapter 9 flowdown clauses that allow for Government audit of those subcontracts, and ensure the performance of audits of those subcontracts;
- (17) Enforce adequate policies on conflict of interest, gifts, and gratuities, including the requirements of the 41 U.S.C. chapter 87, Kickbacks;
- (18) Perform internal audits or management reviews, training, and maintain policies and procedures for the purchasing department to ensure the integrity of the purchasing system;
- (19) Establish and maintain policies and procedures to ensure purchase orders and subcontracts contain mandatory and applicable flowdown clauses, as required by the 48 CFR chapter 1, including terms and conditions required by the prime contract and any clauses required to carry out the requirements of the prime contract;
- (20) Provide for an organizational and administrative structure that ensures effective and efficient procurement of required quality materials and parts at the best value from responsible and reliable sources;
- (21) Establish and maintain selection processes to ensure the most responsive and responsible sources for furnishing required quality parts and materials and to promote competitive sourcing among dependable suppliers so that purchases are reasonably priced and from sources that meet contractor quality requirements;
- (22) Establish and maintain procedures to ensure performance of adequate price or cost analysis on purchasing actions;
- (23) Establish and maintain procedures to ensure that proper types of subcontracts are selected, and that there are controls over subcontracting, including oversight and surveillance of subcontracted effort; and
- (24) Establish and maintain procedures to timely notify the Contracting Officer, in writing, if-

- i. The Contractor changes the amount of subcontract effort after award such that it exceeds 70 percent of the total cost of the work to be performed under the contract, task order, or delivery order. The notification shall identify the revised cost of the subcontract effort and shall include verification that the Contractor will provide added value; or
- ii. Any subcontractor changes the amount of lower-tier subcontractor effort after award such that it exceeds 70 percent of the total cost of the work to be performed under its subcontract. The notification shall identify the revised cost of the subcontract effort and shall include verification that the subcontractor will provide added value as related to the work to be performed by the lower-tier subcontractor(s).

(D) Significant deficiencies.

- (1) The Contracting Officer will provide notification of initial determination to the Contractor, in writing, of any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.
- (2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's purchasing system. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial determination within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.
- (3) The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning—
 - i. Remaining significant deficiencies;
 - ii. The adequacy of any proposed or completed corrective action; and
 - iii. System disapproval, if the Contracting Officer determines that one or more significant deficiencies remain.

(E) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the deficiencies.

(F) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's purchasing system, and the contract includes the Section H

clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

H.21 DOE-H-2027 CONTRACTOR PROPERTY MANAGEMENT SYSTEM ADMINISTRATION (OCT 2014)

(A) Definitions. As used in this clause—

- Acceptable property management system means a property system that complies with the system criteria in paragraph (c) of this clause.
- Property management system means the Contractor's system or systems for managing and controlling Government property.
- Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Energy to rely upon information produced by the system that is needed for management purposes.

(B) General.

The Contractor shall establish and maintain an acceptable property management system. If the Contractor plans to adopt the existing system from the previous Contractor, the Contractor is responsible for the system and shall comply with the system criteria required in this clause. The Contractor shall provide in writing to the Contracting Officer documentation that its property management system meets the system criteria in paragraph (c) of this clause no later than 60 days after contract award. Failure to maintain an acceptable property management system, as defined in this clause, may result in disapproval of the system by the Contracting Officer and/or withholding of payments.

(C) System criteria.

The Contractor's property management system shall be in accordance with paragraph (f) of the contract clause at 48 CFR 52.245-1.

(D) Significant deficiencies.

- (1) The Contracting Officer will provide an initial determination to the Contractor, in writing, of any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.
- (2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's property management system. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing. In the event the Contractor did not respond in writing to the initial

determination within the response time, this lack of response shall indicate that the Contractor agrees with the initial determination.

- (3) The Contracting Officer will evaluate the Contractor's response or the Contractor's lack of response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning—
- i. Remaining significant deficiencies;
 - ii. The adequacy of any proposed or completed corrective action; and
 - iii. System disapproval, if the Contracting Officer determines that one or more significant deficiencies remain.

(E) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

(F) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's property management system, and the contract includes the Section H clause Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

III. DOE CORPORATE CLAUSES OTHER THAN CHRM OR BUSINESS SYSTEMS

H.22 DOE-H-2006 DEFENSE NUCLEAR FACILITY SAFETY BOARD (OCT 2014)

The Contractor shall conduct activities in accordance with those DOE commitments to the Defense Nuclear Facilities Safety Board (DNFSB) which are contained in implementation plans and other DOE correspondence to the DNFSB. The Contractor shall support preparation of DOE responses to DNFSB issues and recommendations which affect or can affect contract work. Based on the Contracting Officer's Representative direction, the Contractor shall fully cooperate with the DNFSB and provide access to such work areas, personnel, and information as necessary. The Contractor shall maintain a document process consistent with the DOE manual on interface with the DNFSB. The Contractor shall be accountable for ensuring that subcontractors adhere to these requirements.

H.23 DOE-H-2012 SUSTAINABLE ACQUISITION UNDER DOE CONSTRUCTION CONTRACTS (OCT 2014)

Pursuant to Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management, and 13514, Federal Leadership in Environmental, Energy, and Economic Performance, the Department of Energy is committed to managing its facilities in an environmentally preferable manner that will promote the natural environment and protect the health and well-being of its Federal employees and

contractor service providers. In the performance of work under this contract, the Contractor shall exert its best efforts to provide its services in a manner that will promote the natural environment and protect the health and well-being of Federal and contract employees at the facility. Sustainable acquisition or environmentally preferable contracting has several interacting initiatives. Among the initiatives are the following:

- Recycled Content Products are described at <http://epa.gov/cpg> • Biobased Products are described at <http://www.biopreferred.gov/> • Energy efficient products are at <http://energystar.gov/products> for Energy Star products • Energy efficient products are at <http://www.eere.energy.gov/femp/procurement> for FEMP designated products • Environmentally Preferable Computers are at <http://www.epeat.net>
- Non-Ozone Depleting Alternative Products are at <http://www.epa.gov/ozone/strathome.html> • Water efficient plumbing products are at <http://epa.gov/watersense>

To the extent that the services provided by the Contractor require provision of any of the above types of products, the Contractor is expected to provide the sustainable, environmentally preferable type of product unless that type of product is not available competitively within a reasonable time, at a reasonable price, is not life cycle cost efficient in the case of energy consuming products, or does not meet reasonable performance standards. The clauses at FAR 52.223-2, Affirmative Procurement of Biobased Products under Service and Construction Contracts, 52.223-15, Energy Efficiency in Energy Consuming Products, and 52.223-17 Affirmative Procurement of EPA-Designated Items in Service and Construction Contracts, in Section I of this contract require the use of products that have biobased content, are energy efficient, or have recycled content.

In case of an apparent inconsistency between this provision and any specification elsewhere in the Contract, consult the Contracting Officer for resolution.

H.24 ALLOCATION OF LIABILITY FOR FINES AND PENALTIES TO RESPONSIBLE PARTY

(A) This clause allocates the responsibilities of DOE and the Contractor, referred to collectively as the “parties,” for implementing the environmental requirements at facilities within the scope of the contract. In this clause, the term “environmental requirements” is defined as requirements imposed by applicable Federal, state, and local environmental laws and regulations, including, without limitation, statutes, ordinances, regulations, court orders, consent decrees, administrative orders, or compliance agreements, consent orders, permits, and licenses.

(B) Liability and responsibility for civil fines or penalties arising from or related to violations of environmental requirements shall be borne by the party causing the violation

irrespective of the fact that the cognizant regulatory authority may assess any such fine or penalty upon either party or both parties without regard to the allocation of responsibility or liability under this contract. This contractual allocation of liability for any such fine or penalty is effective regardless of which party (i) signs the permit applications, manifests, reports or other required documents; (ii) is a permittee; (iii) is the named subject of an enforcement action; or, (iv) is assessed a fine or penalty by the cognizant regulatory authority.

(C) Regardless of which party to this Contract is the named subject (Contractor or DOE) of an enforcement action for noncompliance with environmental requirements by the cognizant regulatory authority, provisions of this Contract related to allowable costs will govern liability for payment of any fine or penalty. If the named subject of an enforcement action or assessment of a fine or penalty is DOE and the fine or penalty would not otherwise be reimbursable under the allowable cost provisions of this contract if the Contractor was the named subject of the enforcement action, the Contractor will either pay the fine or penalty, or reimburse DOE (if DOE pays the fine or penalty).

H.25 DOE-H-2016 PERFORMANCE GUARANTEE AGREEMENT (OCT 2014)

The contractor's parent organization(s) or all member organizations if the Contractor is a joint venture, limited liability company, or other similar entity, shall guarantee performance of the contract as evidenced by the Performance Guarantee Agreement incorporated in the contract in Section J, Attachment J-6. If the Contractor is a joint venture, limited liability company, or other similar entity where more than one organization is involved, the parent(s) or all member organizations shall assume joint and severable liability for the performance of the contract. In the event any of the signatories to the Performance Guarantee Agreement enters into proceedings related to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Contracting Officer.

H.26 DOE-H-2017 RESPONSIBLE CORPORATE OFFICIAL AND CORPORATE BOARD OF DIRECTORS (OCT 2014)

The Contractor has provided a guarantee of performance from its parent company(s) in the form set forth in the Section J Attachment J-6 entitled, "Performance Guarantee Agreement." The individual signing the "Performance Guarantee Agreement" for the parent company(s) should be the Responsible Corporate Official. The Responsible Corporate Official is the person who has sole corporate (parent company(s)) authority and accountability for Contractor performance. DOE may contact, as necessary, the single Responsible Corporate Official identified below regarding Contract performance issues.

Responsible Corporate Official:

Name: Ms. Karen Wiemelt, Chair
Position: Senior Vice President for Energy, Security & Technology
Company/Organization: North American Nuclear Jacobs
Address: 9191 S. Jamaica Street, Englewood, CO 80112
Office Phone: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

Should the Responsible Corporate Official or their contact information change during the period of the Contract, the Contractor shall promptly notify the Contracting Officer in writing of the change.

Identified below is each member of the Corporate Board of Directors that will have corporate oversight. DOE may contact, as necessary, any member of the Corporate Board of Directors, who is accountable for corporate oversight of the Contractor organization and key personnel.

Corporate Board of Directors:

Name: Ms. Karen Wiemelt, Chair
Position: Senior Vice President for Energy, Security & Technology
Company/Organization: North American Nuclear Jacobs
Address: 9191 S. Jamaica Street, Englewood, CO 80112
Office Phone: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

Name: Mr. Colin Jones, Member
Position: Vice President, Deputy General Manager
Company/Organization: North American Nuclear Jacobs
Address: 601 New Jersey Ave. NW, Suite 450,
Washington, D.C. 20001
Office Phone: [REDACTED]
Email: [REDACTED]

Name: Mr. David Michael Blevins, Member
Position: General Manager

Company/Organization: Jacobs North American Nuclear
 Address: 30800 Telegraph Road, Bingham Farms, MI 48025
 Office Phone: [REDACTED]
 Cell: [REDACTED]
 Email: [REDACTED]

Name: Mr. Ken Camplin, PE, Member
 Position: President, Nuclear Services Group
 Company/Organization: BWX Technologies, Inc.
 Address: 109 Ramsey Place, Lynchburg, VA 24501
 Office Phone: [REDACTED]
 Cell: [REDACTED]
 Email: [REDACTED]

Name: Mr. Bobby Smith, Member
 Position: Senior Project Director
 Company/Organization: Fluor Corporation
 Address: 194 Old Ridge Rd., Kingston, TN 37763
 Office Phone: [REDACTED]
 Email: [REDACTED]

Should any change occur to the Corporate Board of Directors or their contact information during the period of the Contract, the Contractor shall promptly notify the Contracting Officer in writing of the change.

H.27 DOE-H-2018 PRIVACY ACT SYSTEMS OF RECORDS (OCT 2014) (DEVIATION)

The Contractor shall design, develop, or adopt the following systems of records on individuals to accomplish an agency function pursuant to the Section I Clause entitled, FAR 52.224-2, Privacy Act.

DOE Privacy Act System Number	DOE Privacy Act System Description
DOE-5	Personnel Records of Former Contractor Employees (includes all former workers)
DOE-10	Energy Employees Occupational Illness Compensation Program Act Files
DOE-11	Emergency Operations Notification Call List
DOE-13	Payroll & Leave Records
DOE-14	Report of Compensation
DOE-15	Intelligence Related Access Authorization
DOE-23	Property Accountability System
DOE-28	General Training Records

DOE-33	Personnel Medical Records (present and former DOE employees and Contractor employees)
DOE-35	Personnel Radiation Exposure Records
DOE-38	Occupational and Industrial Accident Records
DOE-43	Personnel Security Clearance Files
DOE-48	Security Education and/or Infraction Reports
DOE-51	Employee and Visitor Access Control Records
DOE-52	Access Control Records of International Visits, Assignments, and Employment at DOE Facilities and Contractor Sites
DOE-53	Access Authorization for ADP Equipment
DOE-77	Physical Fitness Test Records (for armed, uniformed guards)
DOE-81	Counterintelligence Administrative and Analytical Records and Reports
DOE-84	Counterintelligence Investigative Records
DOE-88	Epidemiologic and Other Health Studies, Surveys, and Surveillances

If the above list does not address all of the systems of records that are generated based on contract performance, then the contractor shall notify the Contracting Officer prior to contract award or as soon as the discrepancy is discovered. The contractor shall monitor the identified systems and notify the Contracting Officer immediately if there is a change to an existing system or if a new system is needed. Lack of notification does not exempt the contractor from complying with the Privacy Act. To ensure that systems are monitored consistently, contractors must review the list annually and notify the Contracting Officer, in writing, that the list is accurate and up to date.

The above list shall be revised by mutual agreement between the contractor and the Contracting Officer, in consultation with the local Privacy Act Officer (PAO) and/or General Counsel, as necessary, to keep it current. A formal modification to the contract is not required to incorporate these revisions; however, the revisions become effective upon mutual written agreement of the parties. The mutually agreed upon revisions shall have the same effect as if they were actually among the systems listed in the table above, for the purpose of satisfying the listing requirement contained in paragraph (a)(1) of the contract clause for FAR 52.224-2, *Privacy Act*. The revisions will be formally incorporated at the next convenient contract modification. Additional information on Privacy Act Systems of Records can be found on the DOE Privacy Office home page.

The “Privacy Act Notification” (FAR 52.224-1) and “Privacy Act” (FAR 52.224-2) clauses are mandatory flow-down clauses that must be included in any subcontract requiring design, development, or operation of a Privacy Act system of record, including third-party medical services contracts. Such subcontracts also require flow down of clauses specifically identifying applicable Privacy Act systems of records into the subcontracts. For example, medical services contracts must include the substance of the H clause above identifying system of record DOE-33, “Personnel Medical Records,” along with language on records turnover when employees terminate. Subcontracts must also contain scope requirements necessary to ensure DOE and contractor compliance with applicable records management and Privacy Act requirements.

H.28 DOE-H-2019 DISPOSITION OF INTELLECTUAL PROPERTY – FAILURE TO COMPLETE CONTRACT PERFORMANCE (OCT 2014)

The following provisions shall apply in the event the Contractor does not complete Contract performance for any reason:

- (A) The Government may take possession of and use all technical data, including limited rights data, restricted computer software, and data and software obtained from subcontractors, licensors, and licensees, necessary to complete the work in conformance with this contract, including the right to use the data in any Government solicitations for the completion of the work contemplated under this contract. Technical data includes, but is not limited to, specifications, designs, drawings, operations manuals, flowcharts, software, databases and any other information necessary for the completion of the work under this contract. Limited rights data and restricted computer software will be protected in accordance with the provisions of the Section I Clause entitled DEAR 970.5227-1 Rights in Data-Facilities. The Contractor shall ensure that its subcontractors and licensors make similar rights available to the Government and its contractors.
- (B) The Contractor agrees to and does hereby grant to the Government an irrevocable, non-exclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice by the Contractor, and any other intellectual property, including technical data, which are owned or controlled by the Contractor, at any time through completion of this contract and which are incorporated or embodied in the construction of the facilities or which are utilized in the operation or remediation of the facilities or which cover articles, materials or products manufactured at a facility: (1) to practice or to have practiced by or for the Government at the facility; and (2) to transfer such license with the transfer of that facility. The acceptance or exercise by the Government of the aforesaid rights and license shall not prevent the Government at any time from contesting the enforceability, validity or scope of, or title to, any rights or patents or other intellectual property herein licensed.
- (C) In addition, the Contractor will take all necessary steps to assign permits, authorizations, leases, and licenses in any third party intellectual property to the Government, or such other third party as the Government may designate, that are necessary for the completion of the work contemplated under this Contract.

H.29 DOE-H-2020 PRICE-ANDERSON AMENDMENTS ACT NONCOMPLIANCE (OCT 2014)

The Contractor shall establish an internal Price-Anderson Amendments Act (PAAA) noncompliance identification, tracking, and corrective action system and shall provide access to and fully support DOE reviews of the system. The Contractor shall also implement a Price- Anderson Amendments Act reporting process which meets applicable DOE standards. The Contractor shall be accountable for ensuring that subcontractors adhere to these requirements.

H.30 DOE-H-2021 WORK STOPPAGE AND SHUTDOWN AUTHORIZATION (OCT 2014)

- (A) Imminent Health and Safety Hazard is a given condition or situation which, if not immediately corrected, could result in a serious injury or death, including exposure to radiation and toxic/hazardous chemicals. Imminent Danger in relation to the facility safety envelope is a condition, situation, or proposed activity which, if not terminated, could cause, prevent mitigation of, or seriously increase the risk of (1) nuclear criticality, (2) radiation exposure, (3) fire/explosion, and/or (4) toxic hazardous chemical exposure.
- (B) Work Stoppage. In the event of an Imminent Health and Safety Hazard, identified by facility line management or operators or facility health and safety personnel overseeing facility operations, or other individuals, the individual or group identifying the imminent hazard situation shall immediately take actions to eliminate or mitigate the hazard (i.e., by directing the operator/implementer of the activity or process causing the imminent hazard to stop work, or by initiating emergency response actions or other actions) to protect the health and safety of the workers and the public, and to protect U.S. Department of Energy (DOE) facilities and the environment. In the event an imminent health and safety hazard is identified, the individual or group identifying the hazard should coordinate with an appropriate Contractor official, who will direct the shutdown or other actions, as required. Such mitigating action should subsequently be coordinated with the DOE and Contractor management. The suspension or stop-work order should be promptly confirmed in writing by the Contracting Officer.
- (C) Shutdown. In the event of an imminent danger in relation to the facility safety envelope or a non-Imminent Health and Safety Hazard identified by facility line managers, facility operators, health and safety personnel overseeing facility operations, or other individuals, the individual or group identifying the potential health and safety hazard may recommend facility shutdown in addition to any immediate actions needed to mitigate the situation. However, the recommendation must be coordinated with Contractor management, and the DOE Site Manager. Any written direction to suspend operations shall be issued by the Contracting Officer, pursuant to the Clause entitled, "FAR 52.242-15, Stop-Work Order."
- (D) Facility Representatives. DOE personnel designated as Facility Representatives provide the technical/safety oversight of operations. The Facility Representative has the authority to "stop work," which applies to the shutdown of an entire plant, activity, or job. This stop-work authority will be used for an operation of a facility which is performing work the Facility Representative believes:
- (1) Poses an imminent danger to health and safety of workers or the public if allowed to continue;
 - (2) Could adversely affect the safe operation of, or could cause serious damage to the facility if allowed to continue; or

- (3) Could result in the release of radiological or chemical hazards to the environment in excess of regulatory limits.
- (E) This clause flows down to all subcontractors at all tiers. Therefore, the Contractor shall insert a clause, modified appropriately to substitute "Contractor Representatives" for "the Contracting Officer" in all subcontracts.

H.31 DOE-H-2033 ALTERNATIVE DISPUTE RESOLUTION (OCT 2014)

- (A) The DOE and the Contractor both recognize that methods for fair and efficient resolution of contractual issues in controversy by mutual agreement are essential to the successful and timely completion of contract requirements. Accordingly, DOE and the Contractor shall use their best efforts to informally resolve any contractual issue in controversy by mutual agreement. Issues of controversy may include a dispute, claim, question, or other disagreement. The parties agree to negotiate with each other in good faith, recognizing their mutual interests, and attempt to reach a just and equitable solution satisfactory to both parties.
- (B) If a mutual agreement cannot be reached through negotiations within a reasonable period of time, the parties may use a process of alternate dispute resolution (ADR) in accordance with the clause at FAR 52.233-1, Disputes. The ADR process may involve mediation, facilitation, fact-finding, group conflict management, and conflict coaching by a neutral party. The neutral party may be an individual, a board comprised of independent experts, or a company with specific expertise in conflict resolution or expertise in the specific area of controversy. The neutral party will not render a binding decision, but will assist the parties in reaching a mutually satisfactory agreement. Any opinions of the neutral party shall not be admissible in evidence in any subsequent litigation proceedings.
- (C) Either party may request that the ADR process be used. The Contractor shall make a written request to the Contracting Officer, and the Contracting Officer shall make a written request to the appropriate official of the Contractor. A voluntary election by both parties is required to participate in the ADR process. The parties must agree on the procedures and terms of the process, and officials of both parties who have the authority to resolve the issue must participate in the agreed upon process.
- (D) ADR procedures may be used at any time that the Contracting Officer has the authority to resolve the issue in controversy. If a claim has been submitted by the Contractor, ADR procedures may be applied to all or a portion of the claim. If ADR procedures are used subsequent to issuance of a Contracting Officer's final decision under the clause at FAR 52.233-1, Disputes, their use does not alter any of the time limitations or procedural requirements for filing an appeal of the Contracting Officer's final decision and does not constitute reconsideration of the final decision.
- (E) If the Contracting Officer rejects the Contractor's request for ADR proceedings, the Contracting Officer shall provide the Contractor with a written explanation of the

specific reasons the ADR process is not appropriate for the resolution of the dispute. If the Contractor rejects the Contracting Officer's request to use ADR procedures, the Contractor shall provide the Contracting Officer with the reasons for rejecting the request.

H.32 DOE-H-2034 CONTRACTOR INTERFACE WITH OTHER CONTRACTORS AND/OR GOVERNMENT EMPLOYEES (OCT 2014) (DEVIATION)

The Government may award contracts to other contractors for work to be performed at a DOE-owned or –controlled site or facility. The Contractor shall cooperate fully with all other on-site DOE contractors and Government employees. The Contractor shall coordinate its own work with such other work as may be directed by the Contracting Officer or a duly authorized representative. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by a Government employee.

The Contractor shall cooperate in a timely manner with DOE and any DOE contractor performing work at the site, especially DOE prime contractors. Cooperation includes, but is not limited to, working together to resolve interface and work performance issues; establishing schedules to support accommodation of the work being performed under the other contract(s); establishing work groups; participating in meetings (including quarterly DOE/Contractor interface meetings); providing access to applicable technical and contract information and data, such as schedule and milestone data; discussing technical matters related to PPPO; and, providing access to Contractor facilities or areas. The Contractor shall ensure that its activities in support of the other prime contractors are fully coordinated with DOE and the other prime contractors.

The Contractor is not authorized to direct and/or to provide oversight to any other DOE-Paducah contractor, except as specified elsewhere in this contract or as directed by the CO. The CO has the authority to direct the Contractor to cease interference in the activities of other DOE contractors, and DOE retains oversight and approval authority for all DOE-Paducah contracts.

The Contractor shall immediately notify the CO in writing if the Contractor's activities will interfere with any DOE contractor or if there is an interference or conflict with any DOE contractor in performance of the Contractor's activities in support of DOE or another DOE contractor.

H.33 DOE-H-2035 ORGANIZATIONAL CONFLICT OF INTEREST MANAGEMENT PLAN (OCT 2014)

Within 15 calendar days after the Notice to Proceed, the Contractor shall submit to the Contracting Officer for approval an Organizational Conflict of Interest (OCI) Management Plan (Plan). The Plan shall describe the Contractor's program to identify, avoid, neutralize, or mitigate potential or actual conflicts of interest that exist or may arise during contract performance and otherwise comply with the requirements of the

clause at DEAR 952.209-72, Organizational Conflicts of Interest. The Plan shall be periodically updated as required during the term of the contract. The Plan shall include, as a minimum, the following:

- (A) The procedures for identifying and evaluating past, present, and anticipated contracts of the Contractor, its related entities and other performing entities under the contract.
- (B) The procedures the Contractor will utilize to avoid, neutralize, or mitigate potential or actual conflicts of interest.
- (C) The procedures for reporting actual or potential conflicts of interest to the Contracting Officer.
- (D) The procedures the Contractor will utilize to oversee, implement, and update the Plan, to include assigning responsibility for management, oversight and compliance to an individual in the Contractor's organization with full authority to implement the Plan.
- (E) The procedures for ensuring all required representations, certifications and factual analyses are submitted to the Contracting Officer for approval in a timely manner.
- (F) The procedures for protecting agency information that could lead to an unfair competitive advantage if disclosed including collecting disclosure agreements covering all individuals, subcontractors, and other entities with access to agency-sensitive information and physical safeguarding of such information.
- (G) An OCI training and awareness program that includes periodic, recurring training and a process to evidence employee participation.
- (H) The enforceable, employee disciplinary actions to be used by the Contractor for violation of OCI requirements.

H.34 DOE-H-2037 NATIONAL ENVIRONMENTAL POLICY ACT (OCT 2014)

The work under this contract requires activities to be subject to the National Environmental Policy Act of 1969 (NEPA). The Contractor shall supply to DOE certain environmental information, as requested, in order for DOE to comply with NEPA and its implementing policies and regulations. Funds obligated under this contract shall only be expended by the Contractor on the activities set out below, unless the Contracting Officer modifies the listed activities or notifies the Contractor that NEPA requirements have been satisfied and the Contractor is authorized to perform the complete work required under the contract.

All contract activities including groundwater monitoring and investigations, aggregate area investigations and cleanups, material disposal area investigations and evaluations, contact-handled transuranic waste processing, and programmatic type support can be performed without specific NEPA impacts. However, during this period should sufficient progress be made in the areas of specific capital project development and

potential groundwater remedy projects or activities, some activities may require support for NEPA activities before additional progress can be made.

H.35 DOE-H-2041 SUSTAINABLE ACQUISITION UNDER DOE SERVICE CONTRACTS (OCT 2014)

(A) Pursuant to Executive Orders 13423, Strengthening Federal Environmental, Energy and Transportation Management, and 13514, Federal Leadership in Environmental, Energy, and Economic Performance, the Department of Energy (DOE) is committed to managing its facilities in a manner that will promote the natural environment and protect the health and well-being of its Federal employees and contractor service providers. The Contractor shall use its best efforts to support DOE in meeting those commitments, including sustainable acquisition or environmentally preferable contracting which may involve several interacting initiatives, such as -

- (1) Alternative Fueled Vehicles and Alternative Fuels;
- (2) Biobased Content Products (USDA Designated Products);
- (3) Energy Efficient Products;
- (4) Non-Ozone Depleting Alternative Products;
- (5) Recycled Content Products (EPA Designated Products); and
- (6) Water Efficient Products (EPA WaterSense Labeled Products).

(B) The Contractor should become familiar with these information resources:

- (1) Recycled Products are described at <http://epa.gov/cpg>.
- (2) Biobased Products are described at <http://www.biopreferred.gov/>.
- (3) Energy efficient products are described at <http://energystar.gov/> products for Energy Star products.
- (4) FEMP designated products are described at <http://www.eere.energy.gov/femp/procurement>.
- (5) Environmentally Preferable Computers are described at <http://www.epeat.net>.
- (6) Non-Ozone Depleting Alternative Products are described at <http://www.epa.gov/ozone/strathome.html>.
- (7) Water efficient plumbing fixtures are described at <http://epa.gov/watersense>.

(C) If, in the course of providing services at the DOE site, the Contractor's services necessitate the acquisition of any of the above types of products, it is expected that the Contractor will acquire the sustainable, environmentally preferable models unless the product is not available competitively within a reasonable time, at a reasonable price, is not life cycle cost efficient in the case of energy consuming products, or does not meet reasonable performance standards. While there is no formal reporting, DOE prepares a sustainable acquisition annual report and the Contractor may be asked by the Contracting Officer to provide information in support of DOE's report.

H.36 DOE-H-2043 ASSIGNMENT AND TRANSFER OF SUBCONTRACTS (OCT 2014)

(A) Assignment of DOE Prime Contracts. During the period of performance of this contract it may become necessary for the U.S. Department of Energy (DOE) to transfer and assign existing or future DOE prime contracts supporting site work to this contract. The Contractor shall accept the transfers and assignments of contracts. Any recommendations and/or suggestions on individual transfers shall be submitted in writing to the Contracting Officer prior to the transfer or assignment.

(B) Transfer of Subcontracts. As the successor contractor, the Contractor agrees to accept transfer of existing subcontracts as determined necessary by DOE for continuity of operations. The Contractor shall use its best efforts to negotiate changes to the assigned subcontracts incorporating mandatory flow-down provisions at no cost. If the subcontractor refuses to accept the changes or requests price adjustments, the Contractor will notify the Contracting Officer in writing. DOE reserves the right to direct the Contractor to transfer to DOE or another Contractor any subcontract awarded under this contract.

H.37 DOE-H-2044 MATERIAL SAFETY DATA SHEET AVAILABILITY (OCT 2014)

In implementation of the clause at FAR 52.223-3, Hazardous Material Identification and Material Safety Data, the Contractor shall obtain, review and maintain a Material Safety Data Sheet (MSDS) in a readily accessible manner for each hazardous material (or mixture containing a hazardous material) ordered, delivered, stored or used; and maintain an accurate inventory and history of use of hazardous materials at each use and storage location. The MSDS shall conform to the requirements of 29 CFR 1910.1200(g).

H.38 DOE-H-2045 CONTRACTOR COMMUNITY COMMITMENT (OCT 2014) (DEVIATION)

(A) The Contractor, in fulfilling its commitments pursuant to the clause at DEAR 970.5226-3, Community Commitment, shall submit to DOE an annual plan for community commitment activities and report on program progress semi-annually.

(B) The Contractor's annual plan for community commitment activities will identify those meaningful actions and activities that it intends to implement within the surrounding counties and local municipalities. The Contractor may engage in any community actions or activities it determines meets the objectives of DOE's community commitment policy. Actions and activities in the areas listed below are representative of the areas in which the Contractor may choose to perform. However, the list is not all inclusive and is not intended to preclude the Contractor from initiating and performing other constructive community activities nor involvement in charitable endeavors it deems worthwhile.

(1) Regional educational outreach programs. The objectives of these programs include workforce sustainability, teacher enhancement, student support, curriculum enhancement, educational technology, public understanding, and providing the

services of contractor employees to schools, colleges, and universities. Regional educational outreach programs could involve providing contractor employees the opportunity to improve their employment skills and opportunities by an educational assistance allowance, provision for outside training programs either during or outside regular work hours, or executive training programs for non-executive employees. This could also involve participating in activities that foster relationships with regional educational institutions and other institutions of higher learning or encouraging students to pursue science, engineering, and technology careers

- (2) Regional purchasing programs. The Contractor may conduct business alliances with regional vendors. These alliances may include training and mentoring programs to enable regional vendors to compete effectively for subcontracts and purchase orders and/or assistance with the development of business systems (accounting, budget, payroll, property, etc.) to enable regional vendors to meet the audit and reporting requirements of the Contractor and DOE. These alliances may also serve to encourage the formation of regional trade associations which will better enable regional businesses to satisfy the Contractor's needs.

The Contractor may coordinate and cooperate with the Chambers of Commerce, Small Business Development Centers, and like organizations, and make prospective regional vendors aware of any assistance that may be available from these entities. DOE encourages the use of regional vendors in fulfilling contract requirements.

- (3) Community support. The Contractor may directly sponsor specific local community activities or sponsor individual employees to work with a specific local community activity. The Contractor may provide support and assistance to community service and reuse organizations. The Contractor may support strategic partnerships with professional and scientific organizations to enhance recruitment into all levels of its organization.
- (C) The Contractor may use fee dollars to pay for its community commitment actions as it deems appropriate. All costs to be incurred by the Contractor for community commitment actions and activities are unallowable and non-reimbursable under the contract.
- (D) The Contractor shall encourage its subcontractors, at all tiers, to participate in these activities.

H.39 DOE-H-2046 DIVERSITY PROGRAM (OCT 2014)

- (A) The Contractor shall develop and implement a diversity program consistent with and in support of the DOE's diversity program. A diversity plan covering the full period of performance (base and option periods) shall be submitted to the Contracting Officer for approval within sixty (60) calendar days after the effective date of the contract. Once the diversity plan is approved by the Contracting Officer, the

Contractor shall implement the diversity plan within thirty (30) calendar days of its approval by the Contracting Officer.

(B) The diversity plan shall address, at a minimum, the Contractor's approach to ensure an effective diversity program (including addressing applicable affirmative action and equal employment opportunity regulations) to include:

(1) a statement of the Contractor's policies and practices; and planned initiatives and activities which demonstrate a commitment to a diversity program, including recruitment strategies for hiring a diverse work force. The diversity plan shall also address, as a minimum, the Contractor's approach for promoting diversity through (1) the Contractor's work force; (2) educational outreach, including a mentor/protégé program; (3) stakeholder involvement and outreach; (4) subcontracting; and (5) economic development.

(C) An annual diversity report shall be submitted pursuant to Section J, Attachment J-13 entitled, *Deliverables*. This report shall provide a list of accomplishments achieved, both internally and externally during the current reporting period, and projected initiatives during the next reporting period. The report shall also list any proposed changes to the diversity plan which shall be subject to the Contracting Officer's approval.

H.40 DOE-H-2048 PUBLIC AFFAIRS – CONTRACTOR RELEASES OF INFORMATION (OCT 2014)

In implementation of the clause at DEAR 952.204-75, Public Affairs, all communications or releases of information to the public, the media, or Members of Congress prepared by the Contractor related to work performed under the contract shall be reviewed and approved by DOE prior to issuance. Therefore, the Contractor shall, at least 10 calendar days prior to the planned issue date, submit a draft copy to the Contracting Officer of any planned communications or releases of information to the public, the media, or Members of Congress related to work performed under this contract with the following exceptions: press releases shall be submitted for approval at least 3 business days prior to the planned issue date, and responses to media inquiries shall be submitted for approval at least 1 business day prior to release. The Contracting Officer will obtain necessary reviews and clearances and provide the Contractor with the results of such reviews prior to the planned issue date.

H.41 DOE-H-2050 INCORPORATION OF SMALL BUSINESS SUBCONTRACTING PLAN (OCT 2014)

(A) In accordance with the clause at FAR 52.219-9, Small Business Subcontracting Plan, the master subcontracting plan contained in Section J, Attachment J-1 is hereby incorporated into and made a part of this contract.

H.42 DOE-H-2052 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF THE OFFEROR – ALTERNATE I (OCT 2014) (DEVIATION)

- (A) The following additional contractor Representations, Certifications and Other Statements are hereby incorporated into the contract by reference:

EVMS Submission Dated: December 20, 2017, per the Four Rivers Nuclear Partnership, LLC EVMS Plan in Volume I Section L.11 (o) EVMS Documentation.

H.43 DOE-H-2053 WORKER SAFETY AND HEALTH PROGRAM IN ACCORDANCE WITH 10 CFR 851 (OCT 2014)

- (A) The Contractor shall comply with all applicable safety and health requirements set forth in 10 CFR 851, Worker Safety and Health Program, and any applicable DOE Directives incorporate into the contract. The Contractor shall develop, implement, and maintain a written Worker Safety and Health Plan (WSHP) which shall describe the Contractor's method for complying with and implementing the applicable requirements of 10 CFR 851. The WSHP shall be submitted to and approved by DOE. The approved WSHP must be implemented prior to the start of work. In performance of the work, the Contractor shall provide a safe and healthful workplace, and must comply with its approved WSHP and all applicable Federal and state environment, health, and safety regulations.
- (B) The Contractor shall take all reasonable precautions to protect the environment, health, and safety of its employees, DOE personnel, and members of the public. When more than one contractor works in a shared workplace, the Contractor shall coordinate with the other contractors to ensure roles, responsibilities, and worker safety and health provisions are clearly delineated. The Contractor shall participate in all emergency response drills and exercises related to the Contractor's work and interface with other DOE contractors.
- (C) The Contractor shall take all necessary and reasonable steps to minimize the impact of its work on DOE functions and employees, and immediately report all job-related injuries and/or illnesses which occur in any DOE facility to the Contracting Officer Representative (COR). Upon request, the Contractor shall provide to the COR a copy of occupational safety and health self-assessments and/or inspections of work sites for job hazards for work performed at DOE facilities.
- (D) The Contracting Officer may notify the Contractor, in writing, of any noncompliance with the terms of this clause, and the corrective action(s) to be taken. After receipt of such notice, the Contractor shall immediately take such corrective action(s).
- (E) In the event that the Contractor fails to comply with the terms and conditions of this clause, the Contracting Officer may, without prejudice to any other legal or contractual rights, issue a stop-work order halting all or any part of the work. Thereafter, the Contracting Officer may, at his or her discretion, cancel the stop-work

order so that the performance of work may be resumed. The Contractor shall not be entitled to an equitable adjustment of the Contract amount or extension of the performance schedule due to any stop-work order issued under this clause.

(F) The Contractor shall flow down the requirements of this clause to all subcontracts at any tier.

(G) In the event of a conflict between the requirements of this clause and 10 CFR 851, the requirements of 10 CFR 851 shall take precedence.

H.44 DOE-H-2055 GOVERNMENT FURNISHED PROPERTY (OCT 2014)

In accordance with the clause FAR 52.245-1, Government Property, the Government will provide the property list in Attachment J-12 Government Furnished Services and Items.

H.45 DOE-H-2056 ANNUAL INDIRECT BILLING RATES (OCT 2014)

(A) Pursuant to the clause at FAR 52.216-7, Allowable Cost and Payment, indirect billing rates, revised billing rates (as necessary), and final indirect cost rate agreements must be established between the Contractor and the Department of Energy (DOE) for each of the Contractor's fiscal years for the life of the cost reimbursement type contract. These indirect rate agreements allow the Contractor to recover indirect expenses incurred during a fiscal year for which final indirect rates have not been established.

(B) Indirect billing and revised indirect billing rate proposals must represent the Contractor's best estimate of the anticipated indirect expenses to be incurred and the estimated allocation base for the current fiscal year in accordance with its approved accounting system. Revised billing rates allow the adjustment of the approved billing rates, based upon updated information, in order to prevent significant over or under billings.

(C) The establishment of rates for the reimbursement of independent research and development/bid and proposal costs shall be in accordance with the provisions of FAR Subpart 42.7, "Indirect Cost Rates," FAR 31.205-18, "Independent Research and Development and Bid and Proposal Costs," and DEAR 931.205-18, "Independent Research and Development (IR&D) and Bid and Proposal (B&P) Costs."

(D) Paragraph (E) below, identifies the requirements and process to be followed by the Contractor in establishing indirect rates for contracts when DOE is the Cognizant Federal Agency (CFA) and when DOE is not the CFA. Specific instructions for submittal of indirect rate proposals to agencies other than DOE must be obtained from the agency involved.

(E) Requirements whether or not DOE is the CFA.

- (1) Allowability of costs and acceptability of cost allocation methods shall be determined in accordance with the applicable sections of FAR Part 30, Cost Accounting Standards, FAR Part 31 and DEAR 931, Contract Cost Principles and Procedures, in effect as of the date of this contract.
- (2) Pending settlement of the final indirect expense rates for any period, the Contractor shall be reimbursed at billing rates approved by the CFA subject to acknowledgment by the cognizant DOE Contracting Officer. These billing rates are subject to appropriate adjustments when revised by mutual agreement or when the final indirect rates are settled, either by mutual agreement or unilateral determination by the CFA subject to acknowledgment by the cognizant DOE Contracting Officer.
- (3) The Contractor shall continue to use the latest DOE or CFA approved billing rate(s) which have been acknowledged by the cognizant DOE Contracting Officer until those rates are superseded by establishment of final rates or more current billing rates. In those cases where current billing rates have not been established, the latest approved final rates shall be used for invoicing, unless it is determined by the cognizant DOE Contracting Officer that use of said rates would not provide for an equitable recovery of indirect costs. In those instances, the cognizant DOE Contracting Officer will take whatever steps are necessary to establish rates that DOE considers to be reasonable for billing purposes.

H.46 DOE- H-2058 DESIGNATION AND CONSENT OF CRITICAL SUBCONTRACTS (OCT 2014) (DEVIATION)

- (A) In accordance with the clause at FAR 52. 244-2(j), Subcontracts, the following subcontracts have been determined to be critical subcontracts:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

- (B) In the event that the Contractor plans either to award or use a new critical subcontract or replace an existing, approved critical subcontract identified in paragraph (a) above, the Contractor shall provide advance notification to, and obtain consent from, the Contracting Officer, notwithstanding the consent requirements under any approved purchasing system or any other terms or conditions of the contract. Consent to these subcontracts is retained by the Contracting Officer and will not be delegated.

H.47 DOE-H-2059 PRESERVATION OF ANTIQUITIES, WILDLIFE AND LAND AREAS (OCT 2014)

- (A) Federal Law provides for the protection of antiquities located on land owned or controlled by the Government. Antiquities include Indian graves or campsites, relics and artifacts. The Contractor shall control the movements of its personnel and its subcontractor's personnel at the job site to ensure that any existing antiquities discovered thereon will not be disturbed or destroyed by such personnel. It shall be the duty of the Contractor to report to the Contracting Officer the existence of any antiquities so discovered.
- (B) The Contractor shall also preserve all vegetation (including wetlands) except where such vegetation must be removed for survey or construction purposes. Any removal of vegetation shall be in accordance with the terms of applicable habitat mitigation plans and permits. Furthermore, all wildlife must be protected consistent with programs approved by the Contracting Officer.
- (C) Except as required by or specifically provided for in other provisions of this contract, the Contractor shall not perform any excavations, earth borrow, preparation of borrow areas, or otherwise disturb the surface soils within the job site without the prior approval of DOE or its designee.

H.48 DOE-H-2061 CHANGE ORDER ACCOUNTING (OCT 2014)

The Contractor shall maintain change order accounting whenever the estimated cost of a change or series of related changes exceeds \$100,000. The Contractor, for each change or series of related changes, shall maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) of work, both changed and not changed, allocable to the change. The Contractor shall maintain such accounts until the parties agree to an equitable adjustment for the changes ordered by the Contracting Officer or the matter is conclusively disposed of in accordance with the Disputes clause.

H.49 DOE-H-2062 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL - ALTERNATE I (OCT 2014)

- (A) Pursuant to the clause at FAR 52.204-9, Personal Identity Verification of Contractor Personnel, the Contractor shall comply with applicable DOE regulations, policies and directives regarding identification, credential and access management for its personnel who have routine physical access to DOE-owned or -controlled sites or facilities or routine access to DOE information systems.
- (B) The Contractor shall comply with the requirements of those DOE directives, or parts thereof, identified elsewhere in the contract pursuant to the clause at DEAR 970.5204-2, Laws, Regulations and DOE Directives.

H.50 DOE-H-2063 CONFIDENTIALITY OF INFORMATION (OCT 2014)

- (A) Performance of work under this contract may result in the Contractor having access to confidential information via written or electronic documents, or by virtue of having access to DOE's electronic or other systems. Such confidential information includes personally identifiable information (such as social security account numbers) or proprietary business, technical, or financial information belonging to the Government or other companies or organizations. The Contractor shall treat this information as confidential and agrees not to use this information for its own purposes, or to disclose the information to third parties, unless specifically authorized to do so in writing by the Contracting Officer.
- (B) The restrictions set out in paragraph (a) above, however, do not apply to –
- (1) Information which, at the time of receipt by the Contractor, is in the public domain;
 - (2) Information which, subsequent to receipt by the Contractor, becomes part of the public domain through no fault or action of the Contractor;
 - (3) Information which the Contractor can demonstrate was previously in its possession and was not acquired directly or indirectly as a result of access obtained by performing work under this contract;
 - (4) Information which the Contractor can demonstrate was received from a third party who did not require the Contractor to hold it in confidence; or
 - (5) Information which is subject to release under applicable law.
- (C) The Contractor shall obtain a written agreement from each of its employees who are granted access to, or furnished with, confidential information, whereby the employee agrees that he or she will not discuss, divulge, or disclose any such information to any person or entity except those persons within the Contractor's organization directly concerned with the performance of the contract. The agreement shall be in a form satisfactory to the Contracting Officer.
- (D) Upon request of the Contracting Officer, the Contractor agrees to execute an agreement with any party which provides confidential information to the Contractor pursuant to this contract, or whose facilities the Contractor is given access to that restrict use and disclosure of confidential information obtained by the Contractor. A copy of the agreement, which shall include all material aspects of this clause, shall be provided to the Contracting Officer for approval.
- (E) Upon request of the Contracting Officer, the Contractor shall supply the Government with reports itemizing the confidential or proprietary information it receives under this contract and identify the source (company, companies or other organizations) of the information.
- (F) The Contractor agrees to flow down this clause to all subcontracts issued under this contract.

H.51 DOE-H-2064 USE OF INFORMATION TECHNOLOGY EQUIPMENT, SOFTWARE, AND THIRD PARTY SERVICES - ALTERNATE II (OCT 2014)

- (A) Acquisition of Information Technology. The Government may provide information technology equipment, existing computer software (as described in 48 CFR 27.405), and third party services for the Contractor's use in the performance of the contract; and the Contracting Officer may provide guidance to the Contractor regarding usage of such equipment, software, and third party services. The Contractor is not authorized to acquire (lease or purchase) information technology equipment, existing computer software, or third party services at the Government's direct expense without prior written approval of the Contracting Officer. Should the Contractor propose to acquire information technology equipment, existing computer software, or third party services, the Contractor shall provide to the Contracting Officer justification for the need, including a complete description of the equipment, software or third party service to be acquired, and a lease versus purchase analysis if appropriate.
- (B) The Contractor shall immediately provide written notice to the Contracting Officer's Representative when an employee of the Contractor no longer requires access to the Government information technology systems.
- (C) The Contractor shall not violate any software licensing agreement, or cause the Government to violate any licensing agreement.
- (D) The Contractor agrees that its employees will not use, copy, disclose, modify, or reverse engineer existing computer software provided to it by the Government except as permitted by the license agreement or any other terms and conditions under which the software is made available to the Contractor.
- (E) If at any time during the performance of this contract the Contractor has reason to believe that its utilization of Government furnished existing computer software may involve or result in a violation of the software licensing agreement, the Contractor shall promptly notify the Contracting Officer, in writing, of the pertinent facts and circumstances. Pending direction from the Contracting Officer, the Contractor shall continue performance of the work required under this contract without utilizing the software.
- (F) The Contractor agrees to include the requirements of this clause in all subcontracts at any tier.

H.52 DOE-H-2065 REPORTING OF FRAUD, WASTE, ABUSE, CORRUPTION, OR MISMANAGEMENT (OCT 2014)

The Contractor shall comply with the following:

- (A) Notify employees annually of their duty to report allegations of fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement relating to DOE programs, operations, facilities, contracts, or information technology systems to an appropriate authority (e.g., OIG, other law enforcement, supervisor, employee concerns office, security officials). Examples of violations to be reported include,

but are not limited to, allegations of false statements; false claims; bribery; kickbacks; fraud; DOE environment, safety, and health violations; theft; computer crimes; contractor mischarging; conflicts of interest; and conspiracy to commit any of these acts. Contractors must also ensure that their employees are aware that they may always report incidents or information directly to the Office of Inspector General (OIG).

- (B) Display the OIG hotline telephone number in buildings and common areas such as cafeterias, public telephone areas, official bulletin boards, reception rooms, and building lobbies.
- (C) Publish the OIG hotline telephone number in telephone books and newsletters under the Contractor's cognizance.
- (D) Ensure that its employees report to the OIG within a reasonable period of time, but not later than 24 hours after discovery, all alleged violations of law, regulations, or policy, including incidents of fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement, that have been referred to Federal, State, or local law enforcement entities.
- (E) Ensure that its employees report to the OIG any allegations of reprisals taken against employees who have reported to the OIG fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement.
- (F) Ensure that its managers do not retaliate against DOE contractor employees who report fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement.
- (G) Ensure that all their employees understand that they must –
 - (1) Comply with requests for interviews and briefings and must provide affidavits or sworn statements, if so requested by an employee of the OIG so designated to take affidavits or sworn statements;
 - (2) Not impede or hinder another employee's cooperation with the OIG; and
 - (3) Not take reprisals against DOE contractor employees who cooperate with or disclose information to the OIG or other lawful appropriate authority.
- (H) Seek more specific guidance concerning reporting of fraud, waste, abuse, corruption, or mismanagement, and cooperation with the Inspector General, in DOE directives.

H.53 DOE-H-2066 SAFEGUARDS AND SECURITY PROGRAM – ALTERNATE I (OCT 2014)

Pursuant to the clause at DEAR 952.204-2, Security, the Contractor agrees to comply with all security regulations and contract requirements as incorporated into the contract.

The Contractor shall comply with the requirements of those DOE directives, or parts thereof, identified elsewhere in the contract pursuant to the clause at DEAR 970.5204-2, Laws, Regulations and DOE Directives.

H.54 DOE-H-2067 GOVERNMENT FURNISHED ON-SITE FACILITIES OR SERVICES (OCT 2014)

Pursuant to the Government Property clause of this contract, the Government shall, during the period of performance of this contract, except for the 121 day transition period, furnish to the Contractor office space for approximately 900 contractor personnel. Additional office space may be provided by the Government as necessary for contract performance. The Contractor shall not acquire or lease any office space without the prior written approval of the Contracting Officer.

As necessary during contract performance, the Government shall provide to the Contractor, for that office space described in paragraph (a) above, office furnishings, supplies, utilities, telephone, janitorial and mail services, and access to Government-owned computer systems.

H.55 DOE-H-2068 CONFERENCE MANAGEMENT (OCT 2014) (DEVIATION)

The Contractor agrees that:

- (A) The contractor shall ensure that contractor-sponsored conferences reflect the DOE commitment to fiscal responsibility, appropriate stewardship of taxpayer funds and support the mission of DOE as well as other sponsors of work. In addition, the contractor will ensure conferences do not include any activities that create the appearance of taxpayer funds being used in a questionable manner.
- (B) For the purposes of this clause, “conference” is defined in Attachment 2 to the Deputy Secretary’s memorandum of August 17, 2015, entitled “Updated Guidance on Conference-Related Activities and Spending” (<http://energy.gov/management/downloads/acquisition-letter-no-al-2015-09>).
- (C) Contractor-sponsored conferences include those events that meet the conference definition and either or both of the following:
 - (1) The contractor provides funding to plan, promote, or implement an event, except in instances where a contractor:
 - i. covers participation costs in a conference for specified individuals (e.g. students, retirees, speakers, etc.) in a total amount not to exceed \$10,000 (by individual contractor for a specific conference) or
 - ii. purchases goods or services from the conference planners (e.g., attendee registration fees, renting booth space).
 - (2) The contractor authorizes use of its official seal, or other seals/logos/ trademarks to promote a conference. Exceptions include non-M&O contractors who use their

seal to promote a conference that is unrelated to their DOE contract(s) (e.g., if a DOE IT contractor were to host a general conference on cyber security).

- (D) Attending a conference, giving a speech or serving as an honorary chairperson does not connote sponsorship.
- (E) The Contractor will provide information on conferences they plan to sponsor with expected costs exceeding \$100,000 in the Department's Conference Management Tool, including:
 - (1) Conference title, description, and date
 - (2) Location and venue
 - (3) Description of any unusual expenses (e.g., promotional items)
 - (4) Description of contracting procedures used (e.g., competition for space/support)
 - (5) Costs for space, food/beverages, audio visual, travel/per diem, registration costs, recovered costs (e.g., through exhibit fees)
 - (6) Number of attendees
- (F) The contractor will not expend funds on the proposed contractor-sponsored conferences with expenditures estimated to exceed \$100,000 until notified of approval by the contracting officer.
- (G) For DOE-sponsored conferences, the contractor will not expend funds on the proposed conference until notified by the contracting officer.
 - (1) DOE-sponsored conferences include events that meet the definition of a conference and where the Department provides funding to plan, promote, or implement the conference and/or authorizes use of the official DOE seal, or other seals/logos/ trademarks to promote a conference. Exceptions include instances where DOE:
 - i. covers participation costs in a conference for specified individuals (e.g. students, retirees, speakers, etc.) in a total amount not to exceed \$10,000 (by individual contractor for a specific conference) or
 - ii. purchases goods or services from the conference planners (e.g., attendee registration fees; renting booth space); or provide funding to the conference planners through Federal grants.
 - (2) Attending a conference, giving a speech, or serving as an honorary chairperson does not connote sponsorship.
 - (3) The contractor will provide cost and attendance information on their participation in all DOE-sponsored conference in the DOE Conference Management Tool.
- (H) For non-contractor sponsored conferences, the contractor shall develop and implement a process to ensure costs related to conferences are allowable, allocable, reasonable, and further the mission of DOE. This process must at a minimum:
 - (1) Track all conference expenses.

- (2) Require the Laboratory Director (or equivalent) or Chief Operating Officer approve a single conference with net costs to the contractor of \$100,000 or greater.
- (I) Contractors are not required to enter information on non-sponsored conferences in DOE'S Conference Management Tool.

Once funds have been expended on a non-sponsored conference, contractors may not authorize the use of their trademarks/logos for the conference, provide the conference planners with more than \$10,000 for specified individuals to participate in the conference, or provide any other sponsorship funding for the conference. If a contractor does so, its expenditures for the conference may be deemed unallowable.

H.56 DOE-H-2069 PAYMENTS FOR DOMESTIC EXTENDED PERSONNEL ASSIGNMENTS (OCT 2014) (DEVIATION)

(A) Definition.

For purposes of this clause, "domestic extended personnel assignments" are defined as any assignment of contractor personnel to a domestic location different than their permanent duty station for a period expected to exceed 30 consecutive calendar days.

- (B) The Contractor's personnel shall be physically located at the Paducah Gaseous Diffusion Plant in Kevil, KY to perform the requirements of the contract in accordance with Section F.2, DOE-F-2002, PLACE OF PERFORMANCE - SERVICES (OCT 2014).

- (C) For domestic extended personnel assignments exceeding six months the Contractor shall conduct a cost/benefit analysis for CO approval prior to incurring any costs for such action. If approved, the Contractor shall be reimbursed the lesser of temporary relocation costs (Temporary Change of Station allowances as described in the Federal Travel Regulation at §302-3.400 - §302-3.429) or a reduced per diem (Extended Travel Duty) in accordance with the allowable cost provisions of the contract and the following:

- (1) When a reduced per diem method (Extended Travel Duty) is utilized, the allowances are as follows:
 - i. Lodging. For the first 60 days and last 30 days of the assignment, the Government will reimburse costs associated with lodging at the lesser of actual cost or 100% of the Federal per diem rate at the assignment location. The intervening days lodging will be reimbursed at the lesser of actual cost or 55% of Federal per diem.

- ii. Meals and Incidental Expenses. For the first 30 days and last 30 days of the assignment, the Government will reimburse costs associated with meals and incidental expenses (M&IE) at the lesser of actual cost or 100% of the Federal per diem rate at the assignment location. The intervening days M&IE will be reimbursed at the lesser of actual cost or 55% of Federal per diem.
- (2) The Government will not reimburse any costs associated with per diem (except for enroute travel) unless the contractor employee maintains a residence at the permanent duty station.
- (3) The Government will not reimburse costs associated with salary premiums, per diem, lodging, or other subsidies for contractor employees on domestic extended personnel assignments after 121 days (except for the reimbursements described above during the last 30 days of the assignment).
- (4) The Government will not reimburse costs associated with salary premiums that exceed 10%.
- (5) The Contractor shall submit and monthly report detailing all costs associated with extended personnel assignments. This report shall be submitted to the Contracting Officer within 5 business days of the close of the Contractors monthly accounting period.
- (6) The Contractor shall include the requirements of this clause in all subcontracts in which travel will be reimbursed at cost.

H.57 DOE-H-2070 KEY PERSONNEL- ALTERNATE I (OCT 2014) (DEVIATION)

(A) Pursuant to the clause at DEAR 952.215-70, Key Personnel, the key personnel for this contract are identified below:

NAME	TITLE
Myma E. Redfield	Program Manager
Larry Brede	Stabilization & Deactivation Director

In addition to the requirement for the Contracting Officer's approval before removing, replacing, or diverting any of the listed key personnel, the Contracting Officer's approval is also required for any change to the position assignment of a current key person.

- (B) Key personnel team requirements. The Contracting Officer and designated Contracting Officer's Representative(s) shall have direct access to the key personnel assigned to the contract. All key personnel shall be permanently assigned full-time to their respective positions and employed by the Prime. All Key Personnel shall have an "L" clearance level (or equivalent) at Contract Award and obtain a "Q" clearance level within 180 days after the Transition is complete.
- (C) Definitions. In addition to the definitions contained in the clause at DEAR 952.215-70, the following shall apply:
- (1) Key personnel are considered "managerial personnel" under the clause at DEAR 952.231-71, Insurance – Litigation and Claims.
- (D) Contract fee reductions for changes to key personnel.
- (1) Notwithstanding the approval by the Contracting Officer, any time the Program Manager is removed, replaced, or diverted within three (3) years of being placed in the position, the earned fee under the contract may be permanently reduced by \$500,000 for each and every such occurrence.
 - (2) Notwithstanding the approval by the Contracting Officer, any time a key person other than the Program Manager is removed, replaced, or diverted within two (2) years of being placed in the position, the earned fee may be permanently reduced by \$250,000 for each and every such occurrence.
 - (3) The Contractor may request in writing that the Contracting Officer consider waiving all or part of a reduction in earned fee. Such written request shall include the Contractor's basis for the removal, replacement, or diversion of any key personnel. The Contracting Officer shall have the unilateral discretion to make the determination to waive all or part of the reduction in earned fee.

H.58 DOE-H-2071 DEPARTMENT OF ENERGY DIRECTIVES (OCT 2014)

- (A) In performing work under this contract, the Contractor shall comply with the requirements of those Department of Energy (DOE) directives, or parts thereof listed in Section J, Attachment J-4.
- (B) The Contracting Officer may, at any time, unilaterally amend this clause, or other clauses which incorporate DOE directives, in order to add, modify or delete specific requirements. Prior to revising the listing of directives, the Contracting Officer shall notify the Contractor in writing of the Department's intent to revise the list, and the Contractor shall be provided with the opportunity to assess the effect of the Contractor's compliance with the revised list on contract cost and funding, technical performance, and schedule, and identify any potential inconsistencies between the revised list and the other terms and conditions of the contract. Within 30 days after

receipt of the Contracting Officer's notice, the Contractor shall advise the Contracting Officer in writing of the potential impact of the Contractor's compliance with the revised list. Based on the information provided by the Contractor and any other information available, the Contracting Officer shall decide whether to revise the listing of directives and so advise the Contractor not later than 30 days prior to the effective date of the revision.

- (C) Notwithstanding the process described in paragraph (b), the Contracting Officer may direct the Contractor to immediately begin compliance with the requirements of any directive.
- (D) The Contractor and the Contracting Officer shall identify and, if appropriate, agree to any changes to other contract terms and conditions, including cost and schedule, associated with the revision pursuant to the clause of this contract at FAR 52.243-2, Changes – Cost Reimbursement (Aug 1987) – Alt II and III (Apr 1984).
- (E) Regardless of the performer of the work, the Contractor is responsible for compliance with the requirements of this clause. The Contractor shall include this clause in all subcontracts to the extent necessary to ensure the Contractor's compliance with these requirements.

H.59 DOE-H-2072 USE OF GOVERNMENT VEHICLES BY CONTRACTOR EMPLOYEES (OCT 2014)

- (A) The Government will provide Government-owned and/or –leased motor vehicles for the Contractor's use in performance of this contract in accordance with the clause FAR 52.245-1, Government Property and/or FAR 52.251-2, Interagency Fleet Management System (IFMS) Vehicles and Related Services.
- (B) The Contractor shall ensure that its employees use and operate Government-owned and/or –leased motor vehicles in a responsible and safe manner to include the following requirements:
 - (1) Use vehicles only for official purposes and solely in the performance of the contract.
 - (2) Do not use vehicles for transportation between an employee's residence and place of employment unless authorized by the Contracting Officer.
 - (3) Comply with Federal, State and local laws and regulations for the operation of motor vehicles.
 - (4) Possess a valid State, District of Columbia, or commonwealth's operator license or permit for the type of vehicle to be operated.
 - (5) Operate vehicles in accordance with the operator's packet furnished with each vehicle.
 - (6) Use seat belts while operating or riding in a Government vehicle.
 - (7) Do not use tobacco products while operating or riding in a Government vehicle.
 - (8) Do not provide transportation to strangers or hitchhikers.

- (9) Do not engage in “text messaging” while operating a Government vehicle, which includes those activities defined in the clause at FAR 52.233-18, Encouraging Contractor Policies to Ban Text Messaging While Driving.
 - (10) In the event of an accident, provide information as may be required by State, county or municipal authorities and as directed by the Contracting Officer.
- (C) The Contractor shall -
- (1) Establish and enforce suitable penalties against employees who use, or authorize the use of Government vehicles for unofficial purposes or for other than in the performance of the contract; and
 - (2) Pay any expenses or cost, without Government reimbursement, for using Government vehicles other than in the performance of the contract.
- (D) The Contractor shall insert this clause in all subcontracts in which Government-owned and/or –leased vehicles are to be provided for use by subcontractor employees.

H.60 DOE-H-2075 PROHIBITION ON FUNDING FOR CERTAIN NONDISCLOSURE AGREEMENTS (OCT 2014)

The Contractor agrees that:

- (A) No cost associated with implementation or enforcement of nondisclosure policies, forms or agreements shall be allowable under this contract if such policies, forms or agreements do not contain the following provisions: “These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling.”
- (B) The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.
- (C) Notwithstanding the provisions of paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the United States Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States Government. Such nondisclosure or confidentiality forms

shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

H.61 DOE-H-2076 LOBBYING RESTRICTIONS (OCT 2014)

The Contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. § 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

IV OTHER CLAUSES

H.62 SUBCONTRACTED WORK

The Contractor shall subcontract (in accordance with the definition at FAR Subpart 44.1) at least 30% of the Total Estimated Cost of the contract (exclusive of contract fee), and the maximum value under the IDIQ CLIN(s). The Contractor's subcontracted work shall be in compliance with its approved Small Business Subcontracting Plan at Section J, Attachment J-1. Subcontracts included in the Section H Clause entitled *DOE-H-2058, Designation and Consent of Critical Subcontracts*, and all other subcontracts issued count toward the fulfillment of the subcontracting and small business goals in this contract, as applicable. Unless otherwise approved in advance by the Contracting Officer, work to be performed by subcontractors selected after contract award shall be acquired through competitive procurements, with an emphasis on fixed-price subcontracts. The use of cost-type, time-and-materials, and labor-hour subcontracts shall be minimized.

One of the key elements of this contract is to achieve continued optimization and improvement in overall costs for CLINs. The subcontracting approach and Small Business Subcontracting Plan should identify timely, discrete, and meaningful scopes of work that can be competed amongst small business concerns after contract award when requirements are further defined. Meaningful work is defined as discrete and distinct technical or programmatic scopes of work within the PWS that directly contribute to the accomplishment of the mission.

H.63 PARENT ORGANIZATION SUPPORT

The Contracting Officer may, at its unilateral discretion, authorize parent organization support, and the corresponding indirect or direct costs, if a direct-benefiting relationship to DOE is demonstrated. All parent organization support shall be authorized in advance by the Contracting Officer.

If parent organization support is proposed by the Contractor or required by DOE, the Contractor shall submit for DOE review and approval, an annual Parent Organization Support Plan (POSP). The Contractor shall submit its initial POSP 60 days prior to: (1) the end of the Contract Transition Period; or (2) the commencement date of parent

organization support proposed by the Contractor or required by the Government. Any subsequent POSP shall be submitted 90 days prior to the start of each year of Contract performance.

H.64 QUALITY ASSURANCE FOR WORK AFFECTING NUCLEAR SAFETY

The Contractor shall implement a Department of Energy (DOE) approved Quality Assurance Program (QAP) in accordance with the current revisions of the Environmental Management (EM) QAP, EM-QA-001, prior to commencement of work affecting nuclear safety. The EM QAP provides the basis to achieve quality across the EM complex for all mission-related work while providing a consistent approach to Quality Assurance (QA). EM requires that American Society of Mechanical Engineers (ASME) NQA-1-2008, "Quality Assurance Requirements for Nuclear Facility Applications," and addenda through 2009 to be implemented as part of the Contractor's QA Program for work affecting nuclear safety. The required portions of NQA-1 to be implemented include: 1) Introduction; 2) Part I; and 3) Applicable portions of Part II. NQA-1 Parts III and IV are to be used as guidance for the Contractor's QAP and implementing procedures.

Contractors have three options for complying with this contract requirement:

- (1) Develop and submit for DOE approval a new QAP;
- (2) Adopt the prior Contractor's DOE-approved QAP; or,
- (3) Modify the prior Contractor's DOE-approved QAP and submit it for DOE approval.

Development of a new QAP, or adoption of an existing or modified version of a QAP from a prior contractor, does not alter a contractor's legal obligation to comply with 10 CFR 830, other regulations affecting QA and DOE Order 414.1D.

The Contractor's QAP shall describe the overall implementation of the EM QA requirements and shall be applied to all work performed by the Contractor (e.g., research, design/engineering, construction, operation, budget, mission, safety, and health). Specifically, the contractor's QAP shall also describe the supply chain for electronic subcomponents, require procurement of sub-components only from original equipment manufacturers or original equipment manufacturer authorized distributors, and require electronic subcomponents be procured from vendors with a documented successful history with the supplier. The Contractor shall develop and implement a comprehensive Issues Management System for the identification, assignment of significance category, and processing of nuclear safety-related issues identified within the Contractor's organization. The significance assigned to the issues shall be the basis for all actions taken by the Contractor in correcting the issue from initial causal analysis, reviews for reporting to DOE, through completion of Effectiveness Reviews, if required based on the seriousness of the issue.

The Contractor shall, at a minimum, annually review and update as appropriate, their QAP. The review and any changes shall be submitted to DOE for approval. Changes shall be approved before implementation by the Contractor.

H.65 ENVIRONMENTAL RESPONSIBILITY

- (A) General. The Contractor is required to comply with all environmental laws, regulations, directives, orders, and procedures applicable to the work being performed under this contract. This includes, but is not limited to, compliance with applicable federal, state and local laws and regulations, permits, interagency agreements such as consent orders, consent decrees, and settlement agreements between the U. S. Department of Energy (DOE) and federal and state regulatory agencies.
- (B) Environmental Permits. This paragraph addresses three permit scenarios, where the Contractor is the sole permittee; where the Contractor and DOE are joint permittees; and where multiple contractors are permittees.
- (1) Contractor as Sole Permittee. To the extent permitted by law and subject to other applicable provisions of the contract that impose responsibilities on DOE, and provisions of law that impose responsibilities on DOE or third parties, the Contractor shall be responsible for obtaining in its own name, shall sign, and shall be solely responsible for compliance with all permits, authorizations and approvals from federal, state, and local regulatory agencies which are necessary for the performance of the work required of the Contractor under this contract. Under this permit scenario, the Contractor shall make no commitments or set precedents that are detrimental to DOE or other contractors. The Contractor shall coordinate its permitting activities with DOE, and with other contractors which may be affected by the permit or precedent established therein, prior to taking the permit action.
- (2) DOE as Permittee, or Contractor and DOE as Joint Permittees. Where appropriate, required by law, or required by applicable regulatory agencies, DOE will sign permits as permittee, or as owner or as owner/operator with the Contractor as operator or co-operator, respectively. DOE will co-sign hazardous waste permit applications as owner/operator where required by applicable law. In this scenario, the Contractor shall coordinate its actions with DOE. DOE is responsible for timely notification to the Contractor of any issues or changes in the regulatory environment that impact or may impact contractor implementation of any permit requirement. The Contractor shall be responsible for timely notification to DOE of any issues or changes in the regulatory environment that impact or may impact contractor implementation of any permit requirement. (3) Multiple Contractors as Permittees. Where appropriate, in situations where multiple contractors are operators or co-operators of operations requiring environmental permits, DOE will sign such permits as owner or co-operator and affected contractors shall sign as operators, or co-operators. In this scenario, the Contractor shall coordinate as appropriate with DOE and other contractors affected by the permit.

- (C) Permit Applications. The Contractor shall provide to DOE for review and comment in draft form any permit applications and other regulatory materials necessary to be submitted to regulatory agencies for the purposes of obtaining a permit. Whenever reasonably possible all such materials shall be provided to DOE initially not later than 90 days prior to the date they are to be submitted to the regulatory agency. The Contractor shall normally provide final regulatory documents to DOE at least 30 days prior to the date of submittal to the regulatory agencies for DOE's final review and signature or concurrence. Special circumstances may require permits to be submitted in a shorter time frame. As soon as the Contractor is aware of any such special circumstance, the Contractor will provide notice to DOE as to the timeframe in which the documents will be submitted to DOE. The Contractor may submit for DOE's consideration, requests for alternate review, comment, or signature, schedules for environmental permit applications or other regulatory materials covered by this Clause. Any such requests shall be submitted 30 days before such material would ordinarily be required to be provided to DOE. Any such schedule revision shall be effective only upon approval from the Contracting Officer.
- (D) Copies, Technical Information. The Contractor shall provide DOE copies of all environmental permits, authorizations, and regulatory approvals issued to the Contractor by the regulatory agencies. DOE will, upon request, make available to the Contractor access to copies of all environmental permits, authorizations, and approvals issued by the regulatory agencies to DOE that the Contractor may need to comply with under applicable law. The Contractor and DOE will provide to each other copies of all documentation, such as, letters, reports, or other such materials transmitted either to or from regulatory agencies relating to the contract work. The Contractor and DOE shall maintain all necessary technical information required to support applications for revision of DOE or other Site contractor environmental permits when such applications or revisions are related to the Contractor's operations. Upon request, the Contractor or DOE shall provide to the other access to all necessary and available technical information required to support applications for or revisions to permits or permit applications. The Contractor shall provide to DOE a certification statement relating to such technical information in the form required by the following paragraph.
- (E) Certifications. The Contractor shall provide a written certification statement attesting that information DOE is requested to sign was prepared in accordance with applicable requirements. The Contractor shall include the following certification statement in the submittal of such materials to DOE:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are

significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The certification statement shall be signed by the individual authorized to sign such certification statements submitted to federal or state regulatory agencies under the applicable regulatory program.

H.66 PARTNERING

In order to most effectively accomplish this Contract, the Government proposes to form a cohesive partnership with the Contractor. It is a way of doing business based upon trust, dedication to common goals, and an understanding and respect of each other's expectations and values. The process creates a teambuilding environment which fosters better communication and problem solving, and a mutual trust between the participants. These key elements create a climate in which issues can be raised, openly discussed, and jointly settled, without getting into an adversarial relationship. In this way, partnering is a mindset, and a way of doing business. It is an attitude toward working as a team, and achieving successful project execution. This endeavor seeks an environment that nurtures team building cooperation, and trust between the Government and the Contractor. The partnership strives to draw on the strengths of each organization in an effort to achieve a quality project done right the first time, within budget, and on schedule.

Participation in the partnership will be totally voluntary by the parties. Any cost associated with effectuating this partnership will be accounted for in accordance with the terms of this Contract.

H.67 NNSA/EM STRATEGIC SOURCING PARTNERSHIP

The contractor shall participate in the National Nuclear Security Administration (NNSA)/Environmental Management (EM) Strategic Sourcing Partnership. Under this partnership, EM contractors shall work with the NNSA/EM Supply Chain Management Center (SCMC) to yield an enterprise-wide, synergistic strategic sourcing solution that leverages NNSA and EM purchasing power to gain pricing, processing, and report efficiencies to reduce costs overall for the Government.

H.68 INTEGRATED WORK CONTROL SYSTEMS AND REPORTING REQUIREMENTS (APR 2016)

A. Management of Work

The Contractor shall manage the planning, execution and reporting of the work described in Section C - Performance Work Statement using the Contract Performance Baseline (CPB). In the past, the Department of Energy (DOE) has used a separate approach to manage capital asset projects and operations activities. The operations activities were managed using Fiscal Year Work Plans. However, this has

caused confusion and blurred the necessary focus on the CPB as the management tool for the planning, execution and reporting for the work in the contract. The focus on the CPB is also essential to ensure continued alignment is maintained between the contract and the performance of work.

The Initial Contract Performance Baseline shall reflect the Work Breakdown Structure (WBS), schedule and costs contained in the Contractor's proposal. The WBS reflects the format of the work established in the PWS. All of the work activities are expected to be managed with a consistent approach. The Government will designate capital asset projects, which shall have additional planning, execution and reporting requirements as outlined in DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, dated November 29, 2010, and its associated Guides.

B. Preparation of Work Activities

As part of the planning and execution of the work described in Section C – Performance Work Statement, the Contractor shall incorporate the principles in Office of Management and Budget (OMB) A-131, Value Engineering, December 26, 2013; GAO Cost Estimating and Assessment Guide, GAO-09-3SP, March 2009; GAO Schedule Assessment Guide, GAO-16-89G, December 2015; GAO Report on DOE AND NNSA Project Management, Analysis of Alternatives Could Be Improved by Incorporating Best Practices, GAO-15-37, December 2014; and NDIA Planning and Scheduling Excellence Guide, Version 2.0, June 2012.

OMB Circular A-131 provides guidance to support the sustained use of value engineering to reduce program and acquisition costs, improve performance, enhance quality, and foster the use of innovation. Value engineering is a structured technique commonly used in program management to optimize the overall value of the program. Often, creative strategies will be employed in an attempt to achieve the lowest life-cycle cost available for the program activities. The value engineering effort is a planned, detailed review/evaluation of program activities to identify alternative approaches to providing the needed assets.

The GAO Cost Estimating and Assessment Guide provides the purpose, scope, and schedule of a cost estimate; a technical baseline description; a WBS; ground rules and assumptions; how to collect data; estimation methodologies; software cost estimating; sensitivity and risk analysis; validating a cost estimate; documenting and briefing results; updating estimates with actual costs; Earned Value Management System (EVMS); and the composition of a competent cost estimating team.

The GAO Schedule Assessment Guide develops the scheduling concepts introduced in the *Cost Estimating and Assessment Guide* and presents them as ten best practices associated with developing and maintaining a reliable, high-quality schedule. Rolling Wave or Block Planning is another recognized best practice in both the GAO Schedule Guide and NDIA Planning and Scheduling Excellence Guide

The GAO report on Analysis of Alternatives identifies 24 best practices for analysis of alternatives – a process that is a key first step in the development of work activities, whether waste processing, soil and water remediation, facility demolition, facility operations or infrastructure improvements. The process entails identifying, analyzing, and selecting a preferred alternative to best meet the mission need by comparing the operational effectiveness, costs, and risks of potential alternatives. These best practices include, among other things, defining functional requirements based on mission need, conducting the Analysis of Alternatives without a predetermined solution, including the status-quo alternative, and conducting an independent review of the entire Analysis of Alternatives process.

C. Project Control System

The Contractor shall establish, maintain and use an EVMS that accurately records and reports the contract performance against the requirements of the Contract and accurately reflects the total estimated cost of the Contract exclusive of fee for the work scope and period of performance being authorized. The EVMS shall be consistent with DOE and EM policies and guidance for work activities. The work control system shall employ either a standardized or a tailored Earned Value Management method and shall be consistent with applicable DOE and EM policies and guidance.

The EVMS Description and its implementation shall comply with the Electronic Industries Alliance (EIA)-748 (current) EVMS Standard.

The requirements of this clause are in addition to the applicable requirements of DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. The CPB shall include and reflect the DOE 413.3B requirements for capital asset projects.

D. Baseline Development and Performance Reporting

The Contractor's planning and performance reporting processes should provide DOE with the supporting data for an independent assessment of the Contractor's work execution plan, basis of cost and schedule estimates for work packages and planning packages, measurement basis of progress reporting and change control process. For the Contract, the estimated cost plus the estimated fee equals the estimated price. The CPB represents the cost, schedule, and scope as it relates to the total estimated cost of the Contract exclusive of fee for the work scope and performance period being authorized.

The CPB cost and schedule allocations must be documented at a WBS level where work activities, their costs and schedule, are planned and controlled by the Contractor to demonstrate that the Contractor understands the complexity of work, and has put in place the planning and management processes and qualified personnel to execute the work in a safe and efficient manner.

The CPB will be reviewed by DOE and must be approved by the Contracting Officer (CO). Once the CPB is approved, the Contractor shall follow the approved change control process.

1. Initial Contract Performance Baseline Submittal

- a. Within the Contract Transition Period, the Contractor shall develop and submit for CO approval:
 - (i) The Initial CPB for the Contract performance period that reflects the Contractor's scope, cost and schedule as contained in the Contractor's proposal.
 - (ii) The Contractor shall submit a Project Controls System Description (PCSD) that documents the existence of the project controls system specified by the Contract.
 - (iii) If the Contractor chooses to develop a CPB designating Management Reserve, the Contractor must restructure the proposal and Basis of Estimates to aggregate the uncertainties and risks into Management Reserve. Thus, the Performance Measurement Baseline plus the Management Reserve will equal the CPB. If the Contractor chooses not to designate Management Reserve, the Performance Measurement Baseline will equal the CPB.
 - (iv) During the Transition Period, the DOE and the Contractor will strive to true-up the Contract based on the conditions at the time of award to include the following:
 - (1) Reconcile contract scope and conditions with changes since the final RFP was issued, such as: labor rate revisions, environmental regulatory milestone changes, adjusted pension payments, funding profile, etc.
 - (2) Reconcile the cleanup progress the previous contractor actually made by the end of the contract period compared with what was assumed in the final RFP
 - (3) Definitize "DOE-provided" costs
 - (4) Reconcile "material differences" proposed by the Contractor
 - (5) Consider DOE proposed changes which may have been developed since the final RFP was issued.
 - (v) The Initial CPB covers approximately the first 15 months of performance starting from the Notice to Proceed (including the 121-day Transition period).
 - (vi) The Contracting Officer will notify the Contractor of the exact timeframe to be used for the Initial CPB and may desire to align the Initial CPB with the fiscal year.
- b. If Contract modifications are negotiated within the Contract Transition Period, the Contractor shall incorporate contract modification(s) into the Initial CPB through baseline change approvals.

- c. The Contractor shall immediately begin performance reporting against the Initial CPB as submitted to the Contracting Officer. If the Contractor is required to have a certified EVMS compliant with EIA 748 (current version), the Initial CPB must have the necessary data elements to support EVMS certification requirements.

2. Final Contract Performance Baseline (CPB) Submittal

- a. Within six months after NTP, in addition to performing and reporting progress against the Initial CPB, the Contractor shall develop and submit for approval by the Contracting Officer the Final CPB which details plans for the entire contract scope through the end of the period of performance.
- b. The Final CPB shall incorporate the Contractor's WBS for the entire contract scope. The WBS represents the lower level of detail from the PWS (Section C).
- c. The Final CPB represents the scope, cost and schedule through the end of the period of performance as it relates to the total estimated cost of the Contract exclusive of fee.
- d. The Contractor shall provide monthly status reports regarding the CPB document preparation progress to the CO.
- e. The Final CPB submittal shall include both a hard copy and electronic files.

3. CPB and Contract Alignment

It is critically important that the CPB remain aligned with the Contract, including any modifications, throughout the Contract period of performance. The Government will withhold all fee payments until the Contractor has obtained the CO's approval of the Final CPB. Similarly, if at any time during the contract performance there is a significant misalignment of the CPB with the Contract, all fee payments will be withheld until alignment is re-established.

4. Contract Baseline Management

- a. The approved CPB is the source document for reporting scope, cost and schedule performance. The CPB and changes to the CPB (initial and final CPB) at all levels shall be managed using formal documented procedures as approved by the CO. The CPB does not replace or modify the Contract terms and conditions and does not create DOE obligations.
- b. The CPB must remain aligned with the Contract. For the cost element, alignment means that the total cost of all the CPB scope must equal total estimated cost of the Contract exclusive of fee; for the schedule element, alignment means that the end date of final CPB schedule is the same as the contract end date; and for the scope element alignment means that the WBS supporting the final CPB includes all scope in the contract.

- c. If a change to the Contract scope is required and is in accordance with the Changes clause, the Contractor shall submit the CPB change proposal concurrently with a request for Contract change proposal to the CO within the timeframe specified by the CO. If the CO issues a unilateral or bilateral Contract modification, the Contractor shall submit a revised CPB in accordance with direction accompanying the Contract modification.

5. Reviews

- a. After receipt of the Contractor's Final CPB, DOE will complete its review to determine whether it meets the terms and conditions of the Contract. In cases where it doesn't meet the requirements, the Contractor shall submit a corrective action plan to the CO for DOE approval within 15 days of receipt of DOE's comments. All corrective actions shall be completed in the timeframes established in the approved corrective action plan.
- b. Certification Review of Contractor's EVMS:
 - (i) Due to the requirement for a certified EVMS, the Contractor shall begin earned value reporting no later than the end of the Contract Transition Period. The Contractor shall initiate discussions with the CO within 15 days after NTP to schedule an EVMS certification review and, when three months of earned value data is available (and no later than six months after the Contract Transition Period), the Contractor shall have in place all documentation necessary to obtain EVMS certification in conformance with EIA-748 standards. The Contractor shall provide the CO, or designated representative(s), access to any and all information and documents supporting the Contractor's project control and reporting system. If the Contractor chooses to use a tailored EVMS, the system must be reviewed for conformance with EIA-748 standards commensurate to the EVMS principles employed by the Contractor.
 - (ii) If this Contract contains Capital Asset Projects, the EVMS shall be evaluated for compliance with the EIA-748 standard and certified in accordance with DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*

6. Performance Reporting

The Contractor shall submit the Contractor's Monthly Performance Report to the CO with a copy to the Office of Project Assessment at ContractorsMPR@hq.doe.gov not later than the eighth business day prior to the end of each calendar month. (The CO can set an earlier due date that the discretion of the site if needed.) The report will provide the prior month's performance for each WBS activity and an update of the performance to date. Format, timing, and manner of reporting will vary based on the type of work in

the CPB segment. For the monthly reporting requirements, for the various types of projects, contracts, or operating activities, see the pertinent contract section(s) in addition to the requirements below.

For contractors using standardized EVMS, the Monthly Performance Report will include the following sections:

The Monthly Performance Report for each CPB segment will include Contract Performance Reports (CPR) formats 1, 3, 5, and 6 and a Contract Funds Status Report (CFSR) unless the contract specifies otherwise. The CPRs shall be provided in the format forms referenced in Integrated Program Management Report (IPMR) Data Item Description (DID) DI-MGMT-81861 unless the contract specifies otherwise. The CFSR shall be provided in accordance with Data Item Description, DI-MGMT-81468, Contract Funds Status Report (CFSR) or equivalent.

The Monthly Performance Report shall also include an executive summary comprising the following sections:

1. A concise narrative of the project status including scope accomplished during the reporting period, near term activities to be performed, and whether project is on target to meet objectives and whether any new risks have been identified
2. An update of the schedule with details of deviations from the critical path or near critical path, their root cause, and potential impacts to the project
3. Explanation of near term milestones and deliverables at risk of being missed
4. Discussion of corrective actions currently in place to address performance issues including initiation date of corrective actions
5. A short narrative explaining any funding issues
6. Information on any safety or quality matters that emerged or persisted during the reporting month

For contractors using a tailored EVMS method or an alternate performance management method, the Monthly Performance Report will include the following sections:

1. A concise narrative of the performance status including scope accomplished during the reporting period, near term activities to be performed, and whether performance is on target to meet objectives and whether any new risks have been identified
2. Progress on contract specific performance metrics
3. Status of contract milestones and contract deliverables
4. A short narrative on performance issues and concerns, including an explanation of any variances from the Contractor's work plan
5. Discussion of corrective actions currently in place to address performance issues including initiation date of corrective actions
6. Any updates/revisions of the schedule

7. Information on any safety or quality matters that emerged or persisted during the reporting month

If the CPB consists primarily of Level of Effort (LOE) activities, the status report will tabulate planned versus actual cost by major functions as agreed to between the Contractor and the CO.

[Note: Integrated Planning, Accountability and Budgeting System (IPABS) is the central repository for EM planning and performance data. Contractor Monthly Performance Report is used by the site or field office to enter the monthly performance data into IPABS.]

H.69 UNALLOWABLE COSTS

The following types of costs are examples of costs specific to this contract that may be determined to be unallowable in accordance with FAR subpart 31.2. The examples are not all inclusive.

- (a) Unreasonable costs resulting from Contractor re-work (e.g., cost associated with disposal and retrieval of unacceptable material in any landfill).
- (b) Costs associated with correcting poor quality document preparation, including costs associated with delays.

H.70 ENVIRONMENTAL OBJECTIVES AND REQUIREMENTS

In support of Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*; Executive Order 13653, *Preparing the United States for the Impacts of Climate Change*; and other applicable statutes, regulations and Executive Orders, and in recognition that harm to the environment, including from greenhouse gas (GHG) pollution and electronic equipment manufacturing and disposal, has quantifiable costs and negative impacts on the economy and federal agency operations, it is the Government's intent to encourage contractors to adopt corporate sustainable practices.

The Contractor shall submit its sustainable practices including specific practices for reducing GHG to the Contracting Officer and shall post that information on the entity's website. These online reporting portals provide efficient means for contractors to share standardized disclosures with DOE and, if desired, with other interested customers, investors, and stakeholders.

- a. The [Federal Supplier Scorecard](#), which contains an annual list of the top Federal contractors and indicates whether the company discloses emissions and has a GHG reduction target.
- b. Company websites, which may include qualitative and/or quantitative information on corporate practices and emissions data.

- c. Third party registry groups, which document GHG management practices of suppliers. The following are some examples widely used by the corporate sector:
- CDP (formerly the Carbon Disclosure Project) – “Investor” or “Supply Chain” carbon report. www.cdp.net
 - The Climate Registry – a data warehouse for GHG inventories that includes both public and private sector entities. www.theclimateregistry.org
 - GRI (Global Reporting Initiative) – sustainability report (GRI G3 or G3.1 application level B or above, or G4 “In accordance – Core” completeness level or above, posted to GRI Sustainability Disclosure Database). www.globalreporting.org

H.71 EMERGENCY CLAUSE

- a. The U.S. Department of Energy (DOE) Portsmouth/Paducah Project Office (PPPO) Manager or designee shall have sole discretion to determine when an emergency situation exists at the Paducah site. In the event that either the DOE-PPPO Manager or designee determines such an emergency exists, the applicable DOE Manager or designee will have the authority to direct any and all activities of the Contractor and subcontractors necessary to resolve the emergency situation. The applicable DOE Manager or designee may direct the activities of the Contractor and subcontractors throughout the duration of the emergency.
- b. The Contractor shall include this Clause in all subcontracts at any tier for work performed at the Paducah site.

H.72 Advance Agreement on COVID-19 Related Costs (02 April 20).

The National Emergency regarding the public health impacts of the COVID-19 pandemic may impact the Contractor’s ability to execute work as planned under this contract. The Advance Agreement, dated April 2, 2020, is at section J-21 of this contract. The Government and the Contractor have entered into this agreement to provide clarity, consistency, and stability during a time of national crisis by capturing their joint understanding of costs that can be reasonably anticipated on the date the agreement was signed.

This agreement may need to be adjusted over time as the pandemic continues and the situation at the place of performance changes as a result of the National Emergency. Therefore, either party may propose changes that may be incorporated by mutual agreement. However, this agreement does not restrict the ability of the Contracting Officer to issue a Stop Work Order or other direction necessary to address immediate health or safety issues that may occur as the pandemic progresses.

The policies and practices incorporated into the Advance Agreement apply to all personnel regardless of job classification or representation; provided an individual is an employee of the Contractor, the terms of the Advance Agreement apply, in keeping with Section 3610 of Public Law 116-136, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). The terms also apply to how subcontract costs will be treated under the contract. Because COVID-19 related costs will be charged to the contract using Change Order Accounting practices, this Advance Agreement does not impact any other advance agreement on the contractor's general accounting practices, such as an advance understanding on costs.

H.73 Paid leave under Section 3610 of the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) to maintain employees and subcontractors in a ready state.

- (a) The Contractor may submit for reimbursement and the Government (without requiring consideration but precluding additional fee) will treat as allowable (if otherwise allowable per federal regulations) the costs of paid leave (including sick leave) the Contractor or its subcontractors provide to keep employees in a ready state if—
 - (1) The employees: cannot perform work on a site approved by the Federal Government (including a federally-owned or leased facility or site) due to facilities closures or other restrictions; and cannot telework because their job duties cannot be performed remotely during the public health emergency declared on January 31, 2020 for COVID-19.
 - (2) The costs are incurred from January 31, 2020 through September 30, 2021.
 - (3) The costs do not reflect any amount exceeding an average of 40 hours per week for paid leave.
- (b) Where other relief provided for by the CARES Act or any other Act would benefit the contractor or the contractor's subcontractors, including, but not limited to, funds available under sections 1102 and 1106 of the CARES Act, the contractor should evaluate the applicability of such benefits in seeking reimbursement under the contract.
- (c) The Contractor must represent in any request for reimbursement--
 - (1) Either it: has not received, has not claimed, and will not claim any other reimbursement, including claims for reimbursement via letter of credit, for federal funds available under the CARES Act for the same purpose, including, but not limited to, funds available under sections 1102 and 1106 of the CARES Act; or if it has received, claimed, or will claim other reimbursement, that reimbursement has been reflected, or will be reflected when known, in requests for reimbursement but in no case reflected later than in its final proposal to determine allowable incurred costs.
 - (2) Its request reflects or will reflect as soon as known all applicable credits, including

- (i) Tax credits, including credits allowed pursuant to division G of Public Law 116-127;
and
- (ii) Applicable credits allowed under the CARES Act, including applicable credits for
loan guarantees.

PART II – CONTRACT CLAUSES**SECTION I****CONTRACT CLAUSES****I.1 FAR 52.252-2, CLAUSES INCORPORATED BY REFERENCE (FEB 1998)**

This Contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at these addresses:

<https://www.acquisition.gov/?q=browsefar>

<http://energy.gov/management/downloads/searchable-electronic-department-energy-acquisition-regulation>

Clause No.	FAR/DEAR Reference	Title	Fill-In Information See FAR 52.104(d)
I.2	52.202-1	Definitions (Nov 2013)	
I.3	52.203-3	Gratuities (Apr 1984)	
I.4	52.203-5	Covenant Against Contingent Fees (May 2014)	
I.5	52.203-6	Restrictions on Subcontractor Sales to the Government (Sep 2006)	
I.6	52.203-7	Anti-Kickback Procedures (May 2014)	
I.7	52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (May 2014)	
I.8	52.203-10	Price or Fee Adjustment for Illegal or Improper Activity (May 2014)	
I.9	52.203-12	Limitation on Payments to Influence Certain Federal Transactions (Oct 2010)	
I.10	52.203-13	Contractor Code of Business Ethics and Conduct (Oct 2015)	
I.11	52.203-14	Display of Hotline Poster(s) (Oct 2015)	(b)(3) DOE IG Hotline Poster: http://energy.gov/sites/prod/files/igprod/documents/Hotline_poster.pdf
I.12	52.203-17	Contractor Employee Whistleblower Rights and Requirement to Inform Employees of Whistleblower Rights (Apr 2014)	
I.13	52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper (May 2011)	
I.14	52.204-9	Personal Identity Verification of Contractor Personnel (Jan 2011)	
I.15	52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards (Oct 2015)	
I.16	52.204-13	System for Award Management Maintenance (Jul 2013)	

I.17	52.204-14	Service Contract Reporting Requirements (Jan 2014)	
I.18	52.204-15	Service Contract Reporting Requirements for Indefinite-Delivery Contracts (Jan 2014)	
I.19	52.204-18	Commercial and Government Entity Code Maintenance (Jul 2015)Jul 2015)	
I.20	52.204-19	Incorporation by Reference of Representations and Certifications (Dec 2014)	
I.21	52.209-6	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, Or Proposed for Debarment (Oct 2015)	
I.22	52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters (Jul 2013)	
I.23	52.209-10	Prohibition on Contracting With Inverted Domestic Corporations (Nov 2015)Nov 2015)	
I.24	52.210-1	Market Research (Apr 2011)	
I.25	52.215-2	Audit and Records – Negotiation (Oct 2010)	
I.26	52.215-8	Order of Precedence – Uniform Contract Format (Oct 1997)	
I.27	52.215-11	Price Reduction for Defective Certified Cost or Pricing Data – Modifications (Aug 2011)	
I.28	52.215-13	Subcontractor Certified Cost or Pricing Data – Modifications (Oct 2010)	
I.29	52.215-15	Pension Adjustments and Asset Reversions (Oct 2010)	
I.30	52.215-17	Waiver of Facilities Capital Cost of Money (Oct 1997) NOTE: This clause will not be included in the contract if awardee proposes Facilities Capital Cost of Money in its proposal.	
I.31	52.215-18	Reversion or Adjustment of Plans for Post-Retirement Benefits (PRB) Other Than Pensions (Jul 2005)	
I.32	52.215-19	Notification of Ownership Changes (Oct 1997)	
I.33	52.215-21	Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data – Modifications (Oct 2010) (Alt. III (Oct 1997))	(c) Microsoft® (MS) Word®, Access®, or Excel® (Version 2010 or higher), or Adobe Acrobat®
I.34	52.215-23	Limitations on Pass-Through Charges (Oct 2009)	
I.35	52.216-7	Allowable Cost and Payment (Jun 2013)	(a)(3)30 th (cost invoices) and 30 th (fee invoices)
I.36	52.216-11	Cost Contract-No Fee (Apr 1984)	
I.37	52.216-18	Ordering (Oct 1995) <i>See full text version in Section I below (applies to IDIQ CLINs only)</i>	(a) the date of contract award through the end of contract performance as specified in Section F
I.38	52.216-19	Order Limitations (Oct 1995) <i>See full text version in Section I below (applies to IDIQ CLINs only)</i>	(a) \$0 (b)(1) \$112,000,000 (b)(2) \$112,000,000 (b)(3) 365 (d) 5
I.39	52.216-22	Indefinite Quantity (Oct 1995) <i>See full text version in Section I below (applies to IDIQ CLINs only)</i>	(d) one year beyond the expiration date of the contract period
I.40	52.217-8	Option to Extend Services (Nov 1999)	30 days of the contract expiration date

I.41	52.217-9	Option To Extend The Term Of The Contract (Mar 2000) <i>See full text version in Section I below</i>	(a) <u>any time period prior to the expiration of the contract</u> (b) 30 calendar days (c) 10 years
I.42	52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Oct 2014)	OFFEROR FILL-IN: <input type="checkbox"/> Offeror elects to waive the evaluation preference.
I.43	52.219-8	Utilization of Small Business Concerns (Oct 2014)	
I.44	52.219-9	Small Business Subcontracting Plan (Oct 2015) – Alt II (Oct 2001)	
I.45	52.219-16	Liquidated Damages – Subcontracting Plan (Jan 1999)	
I.46	52.219-28	Post-Award Small Business Program Representation (Jul 2013)	(g) Contractor fill-in after award, as applicable.
I.47	52.222-1	Notice to the Government of Labor Disputes (Feb 1997)	
I.48	52.222-2	Payment for Overtime Premiums (Jul 1990)	(a) \$0
I.49	52.222-3	Convict Labor (Jun 2003)	
I.50	52.222-4	Contract Work Hours and Safety Standards – Overtime Compensation (May 2014)	
I.51	52.222-17	Nondisplacement of Qualified Workers (May 2014)	
I.52	52.222-21	Prohibition of Segregated Facilities (Apr 2015)	
I.53	52.222-26	Equal Opportunity (Apr 2015))	
I.54	52.222-30	Construction Wage Requirements – Price Adjustment (None or Separately Specified Method) (May 2014)	
I.55	52.222-35	Equal Opportunity for Veterans (Oct 2015)	
I.56	52.222-36	Equal Opportunity for Workers With Disabilities (Jul 2014)	
I.57	52.222-37	Employment Reports on Veterans (Feb 2016)Feb 2016)	
I.58	52.222-40	Notification of Employee Rights Under the National Labor Relations Act (Dec 2010)	
I.59	52.222-41	Service Contract Labor Standards (May 2014)	
I.60	52. 222-42	Statement Of Equivalent Rates For Federal Hires (May 2014) <i>See full text version in Section I below</i>	
I.61	52.222-43	Fair Labor Standards Act and Service Contract Labor Standards – Price Adjustment (Multiple Year and Option Contracts) (May 2014)	
I.62	52.222-50	Combating Trafficking in Persons (Mar 2015)	
I.63	52.222-54	Employment Eligibility Verification (Oct 2015)	
I.64	52.222-55	Minimum Wages Under Executive Order 13658 (Dec 2015)	
I.65	52.223-2	Affirmative Procurement of Biobased Products Under Service and Construction Contracts (Sep 2013)	
I.66	52.223-3	Hazardous Material Identification and Material Safety Data (Jan 1997) – Alt I (Jul 1995)	(b) [OFFEROR Fill-In]
I.67	52.223-5	Pollution Prevention and Right-to-Know Information (May 2011)	
I.68	52.223-6	Drug-Free Workplace (May 2001)	
I.69	52.223-7	Notice Of Radioactive Materials (Jan 1997) <i>See full text version in Section I below</i>	(a) 60
I.70	52.223-9	Estimate Of Percentage Of Recovered Material Content For EPA-Designated Items (May 2008) <i>See full text version in</i>	(b)(2) the Contracting Officer

		<i>Section I below</i>	
I.71	52.223-10	Waste Reduction Program (May 2011)	
I.72	52.223-12	Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners (Jun 2016)	
I.73	52.223-13	Acquisition of EPEAT® – Registered Imaging Equipment (Jun 2014)	
I.74	52.223-14	Acquisition of EPEAT® – Registered Televisions (Jun 2014)	
I.75	52.223-15	Energy Efficiency in Energy-Consuming Products (Dec 2007)	
I.76	52.223-16	Acquisition of EPEAT®-Registered Personal Computer Products (Oct 2015)	
I.77	52.223-17	Affirmative Procurement of EPA-designated Items in Service and Construction Contracts (May 2008)	
I.78	52.223-18	Encouraging Contractors Policies to Ban Text Messaging While Driving (Aug 2011)	
I.79	52.223-19	Compliance with Environmental Management Systems (May 2011)	
I.80	52.224-1	Privacy Act Notification (Apr 1984)	
I.81	52.224-2	Privacy Act (Apr 1984)	
I.82	52.225-1	Buy American – Supplies (May 2014)	
I.83	52.225-13	Restrictions on Certain Foreign Purchases (Jun 2008)	
I.84	52.227-1	Authorization and Consent (Dec 2007)	
I.85	52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (Dec 2007)	
I.86	52.227-3	Patent Indemnity (Apr 1984)	
I.87	52.227-4	Patent Indemnity – Construction Contracts (Dec 2007)	
I.88	52.227-14	Rights in Data – General (May 2014) – Alt II (Dec 2007)	(g)(3) Purposes as set forth in 27.404-2(c)(1), and for Government business purposes (except for manufacture)
I.89	52.227-23	Rights to Proposal Data (Technical) (Jun 1987)	[OFFEROR Fill-In]
I.90	52.228-5	Insurance – Work on a Government Installation (Jan 1997) <i>Applies to firm-fixed-price task orders only</i>	
I.91	52.229-3	Federal, State, and Local Taxes (Feb 2013) <i>Applies to firm-fixed-price task orders only</i>	
I.92	52.230-2	Cost Accounting Standards (Oct 2015)	
I.93	52.230-6	Administration of Cost Accounting Standards (Jun 2010)	
I.94	52.232-1	Payment (Apr 1984) <i>Applies to firm-fixed-price task orders only</i>	
I.95	52.232-8	Discounts for Prompt Payment (Feb 2002) <i>Applies to firm-fixed-price task orders only</i>	
I.96	52.232-9	Limitation of Withholding of Payments (Apr 1984)	
I.97	52.232-11	Extras (Apr 1984) <i>Applies to firm-fixed-price task orders only</i>	
I.98	52.232-17	Interest (May 2014)	
I.99	52.232-18	Availability of Funds (Apr 1984)	
I.100	52.232-22	Limitation of Funds (Apr 1984)	
I.101	52.232-23	Assignment of Claims (May 2014)	
I.102	52.232232-25	Prompt Payment (Jul 2013) – Alt I (Feb 2002)	
I.103	52.232-33	Payment by Electronic Funds Transfer – System for Award Management (Jul 2013)	

I.104	52.232-39	Unenforceability of Unauthorized Obligations (Jun 2013)	
I.105	52.232-40	Providing Accelerated Payments to Small Business Subcontractors (Dec 2013)	
I.106	52.233-1	Disputes (May 2014) – Alt I (Dec 1991)	
I.107	52.233-3	Protest after Award (Aug 1996) – Alt I (Jun 1985)	
I.108	52.233-4	Applicable Law for Breach of Contract Claim (Oct 2004)	
I.109	52.237-2	Protection of Government Buildings, Equipment, and Vegetation (Apr 1984)	
I.110	52.237-3	Continuity of Services (Jan 1991)	
I.111	52.242-1	Notice of Intent to Disallow Costs (Apr 1984)	
I.112	52.242-3	Penalties for Unallowable Costs (May 2014)	
I.113	52.242-4	Certification of Final Indirect Costs (Jan 1997)	
I.114	52.242-13	Bankruptcy (Jul 1995)	
I.115	52.243-2	Changes – Cost Reimbursement (Aug 1987) – Alt II (Apr 1984) and Alt III (Apr 1984) <i>(Application of the specific alternate will be dependent upon the circumstances of the change, as determined by the Contracting Officer)</i>	
I.116	52.244-2	Subcontracts (Oct 2010) – Alt I (Jun 2007)	(d) Any subcontract to replace any of the subcontracts noted in paragraph (j) of this clause as well as any subcontract equal to or greater than \$1,000,000 (j) Contracting Officer fill-in at award
I.117	52.243-6	Change Order Accounting (Apr 1984)	
I.118	52.244-5	Competition in Subcontracting (Dec 1996)	
I.119	52.244-6	Subcontracts for Commercial Items (Jun 2016)	
I.120	52.245-1	Government Property (Apr 2012) As modified by DEAR 952.245-5 “and DOE Acquisition Regulation Subpart 945.5” after the reference to FAR Subpart 45.5 in paragraphs (e)(1) and (e)(2) of the clause.	
I.121	52.245-9	Use and Charges (Apr 2012)	
I.122	52.246-25	Limitation of Liability – Services (Feb 1997)	
I.123	52.247-67	Submission Of Transportation Documents For Audit (Feb 2006) <i>See full text version in Section I below</i>	
I.124	52.247-68	Report of Shipment (REPSHIP) (Feb 2006)	
I.125	52.248-1	Value Engineering (Oct 2010)	(m) Contracting Officer fill-in at award
I.126	52.248-3	Value Engineering – Construction (Oct 2015)	(i) Contracting Officer fill-in at award
I.127	52.249-6	Termination (Cost-Reimbursement) (May 2004) – Alt I (Sep 1996)	
I.128	52.249-8	Default (Fixed-Price Supply and Service) (Apr 1984) <i>Applies to firm-fixed-price task orders only</i>	
I.129	52.249-14	Excusable Delays (Apr 1984)	
I.130	52.251-1	Government Supply Sources (Apr 2012)	
I.131	52.251-2	Interagency Fleet Management System Vehicles and Related Services (Jan 1991)	
I.132	52.253-1	Computer Generated Forms (Jan 1991)	
I.133	952.202-1	Definitions (Feb 2011)	
I.134	952.203-70	Whistleblower Protection for Contractor Employees (Dec	

		2000)	
I.135	952.204-2	Security (Mar 2011)	
I.136	952.204-70	Classification/Declassification (Sep 1997)	
I.137	952.204-75	Public Affairs (Dec 2000)	
I.138	952.204-77	Computer Security (Aug 2006)	
I.139	952.208-7	Tagging of Leased Vehicles (Apr 1984)	
I.140	952.208-70	Printing (Apr 1984)	
I.141	952.209-72	Organizational Conflicts of Interest (Aug 2009) Alt I (Feb 2011)	(b)(1)(i) zero (0)
I.142	952.215-70	Key Personnel (Dec 2000)	(a) See Section H Key Personnel
I.143	952.216-7	Allowable Cost and Payment (Feb 2011)	
I.144	952.217-70	Acquisition of Real Property (Mar 2011)	
I.145	952.219-70	DOE Mentor-Protégé Program (May 2000)	
I.146	952.223-71	Integration of Environment, Safety, and Health into Work Planning and Execution (July 2009)	
I.147	952.223-72	Radiation Protection and Nuclear Criticality (Apr 1984)	
I.148	952.223-75	Preservation of Individual Occupational Radiation Exposure Records (Apr 1984)	
I.149	952.223-76	Conditional Payment of Fee or Profit – Safeguarding Restricted Data and Other Classified Information and Protection of Worker Safety and Health (Dec 2010)	(b)(2)(i) 12
I.150	952.223-78	Sustainable Acquisition Program (Oct 2010)	
I.151	952.225-71	Compliance with Export Control Laws and Regulations (Nov 2015)	
I.152	952.226-74	Displaced Employee Hiring Preference (Jun 1997)	
I.153	952.227-13	Patent Rights – Acquisition by the Government (Sep 1997), as modified by DEAR 927.303(c) to include the Facilities License paragraph as paragraph 952.227-13(n)	
I.154	952.227-82	Rights to Proposal Data (Apr 1994)	[Offeror Fill-In]
I.155	952.231-71	Insurance--Litigation and Claims (Jul 2013)	
I.156	952.242-70	Technical Direction (Dec 2000) <i>See full text version in Section I below</i>	
I.157	952.247-70	Foreign Travel (Jun 2010)	
I.158	952.250-70	Nuclear Hazards Indemnity Agreement (Jun 1996)	
I.159	952.251-70	Contractor Employee Travel Discounts (Aug 2009)	
I.160	970.5204-1	Counterintelligence (Dec 2010)	
I.161	970.5204-2	Laws, Regulations, and DOE Directives (Dec 2000)	
I.162	970.5204-3	Access To And Ownership Of Records (Oct 2014) <i>See full text version in Section I below</i>	
I.163	970.5217-1	Strategic Partnership Projects Program. (Apr 2015)	
I.164	970.5223--1	Integration of Environment, Safety, and Health into Work Planning and Execution. (Dec 2000)	
I.165	970.5223-4	Workplace Substance Abuse Programs at DOE Sites (Dec 2000)	
I.166	970.5223-6	Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management (Oct 2010)	
I.167	970.5226-3	Community Commitment (Dec 2000)	
I.168	970.5227-1	Rights in Data – Facilities (Dec 2000)	
The following clauses apply to Construction work only			
I.169	52.216-7	Allowable Costs and Payment – Alt 1 (Feb 1997)	

I.170	52.222-6	Construction Wage Rate Requirements (May 2014)	
I.171	52.222-7	Withholding of Funds (May 2014)	
I.172	52.222-8	Payrolls and Basic Records (May 2014)	
I.173	52.222-9	Apprentices and Trainees (Jul 2005)	
I.174	52.222-10	Compliance with Copeland Act Requirements (Feb 1988)	
I.175	52.222-11	Subcontracts (Labor Standards) (May 2014)	
I.176	52.222-12	Contract Termination -- Debarment (May 2014)	
I.177	52.222-13	Compliance with Construction Wage Rate Requirements and Related Regulations (May 2014)	
I.178	52.222-14	Disputes Concerning Labor Standards (Feb 1988)	
I.179	52.222-15	Certification of Eligibility (May 2014)	
I.180	52.222-16	Approval of Wage Rates (May 2014)	
I.181	52.222-27	Action Compliance Requirements for Construction (Apr 2015)	
I.182	52.225-9	Buy American--Construction Materials (May 2014) <i>See full text version in Section I below</i>	(b)(2) None
I.183	52.225-11	Buy American--Construction Materials Under Trade Agreements (Feb 2016) Alt I (May 2014) <i>See full text version in Section I below</i>	(b)(3) None
I.184	52.227-4	Patent Indemnity -- Construction Contracts (Dec 2007)	
I.185	52.228-2	Additional Bond Security (Oct 1997)	
I.186	52.228-11	Pledges of Assets (Jan 2012)	
I.187	52.228-12	Prospective Subcontractor Requests for Bonds (May 2014)	
I.188	52.228-14	Irrevocable Letter of Credit (Nov 2014)	
I.189	52.228-15	Performance and Payment Bonds -- Construction (Oct 2010)	
I.190	52.232-5	Prompt Payment for Construction Contracts (May 2014)	
I.191	52.232-27	Prompt Payment for Construction Contracts (May 2014)	
I.192	52.236-1	Performance of Work by the Contractor (Apr 1984)	Seventy Percent (70%)
I.193	52.236-2	Differing Site Conditions (Apr 1984)	
I.194	52.236-3	Site Investigation and Conditions Affecting the Work (Apr 1984)	
I.195	52.236-5	Material and Workmanship (Apr 1984)	
I.196	52.236-6	Superintendence by the Contractor (Apr 1984)	
I.197	52.236-7	Permits and Responsibilities (Nov 1991)	
I.198	52.236-8	Other Contracts -- (Apr 1984)	
I.199	52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements (Apr 1984)	
I.200	52.236-10	Operations and Storage Areas (Apr 1984)	
I.201	52.236-11	Use and Possession Prior to Completion (Apr 1984)	
I.202	52.236-12	Cleaning Up (Apr 1984)	
I.203	52.236-13	Accident Prevention (Apr 1984)	
I.204	52.236-14	Availability and Use of Utility Services	
I.205	52.236-15	Schedules for Construction Contracts (Apr 1984)	
I.206	52.236-16	Quantity Surveys (Apr 1984)	
I.207	52.236-18	Work Oversight in Cost Reimbursement Construction Contracts (Apr 1984)	
I.208	52.236-19	Organization and Direction of the Work (Apr 1984)	
I.209	52.236-21	Specifications and Drawings for Construction Alt I (Apr 1984)	
I.210	52.236-26	Preconstruction Conference (Feb 1995)	
I.211	52.242-14	Suspension of Work (Apr 1984)	
I.212	52.243-1	Changes -- Fixed Price (Aug 1987) Alt I (Apr 1984) Alt II (Apr 1984) <i>Applies to firm-fixed-price task orders only</i>	

I.213	52.243-4	Changes (Jun 2007)	
I.214	52.246-12	Inspection of Construction (Aug. 1996)	
I.215	52.246-13	Inspection -- Dismantling, Demolition, or Removal of Improvements (Aug. 1996)	
I.216	52.249-2	Termination for Convenience of the Government (Fixed-Price) Alt I (Sep 1996) <i>Applies to firm-fixed-price task orders only</i>	
I.217	52.249-10	Default (Fixed-Price Construction) (Apr 1984)	
I.218	52.204-25	Prohibition on Contracting for Certain Telecommunication and Video Surveillance Services or Equipment – Oct. 10, 2019.	
I.219	52.223-99	Ensuring Adequate COVID-19 Safety Protocols for Federal Contractors (OCT 2021) (Deviation) <i>See full text version in Section I below</i>	

****Note:** Any of the above referenced construction clauses that require a fill-in will be identified post-award as construction is initiated.

This Contract incorporates one or more clauses by reference as indicated in the matrix above.

Any clauses that are included in full text are listed below and include the same Section I identifier in parentheses as was used above.

(I.37) FAR 52.216-18, ORDERING (OCT 1995)

- (a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from the contract effective date through the end of contract performance.
- (b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.
- (c) If mailed, a delivery order or task order is considered “issued” when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(I.38) FAR 52.216-19, ORDER LIMITATIONS (OCT 1995)

- (a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than \$1,000, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.
- (b) *Maximum order.* The Contractor is not obligated to honor --
 - (1) Any order for a single item in excess of XXXXXXXXXX;

- (2) Any order for a combination of items in excess of [REDACTED]; or
- (3) A series of orders from the same ordering office within 365 days that together call for quantities exceeding the limitation in subparagraph (b)(1) or (2) of this section.
- (c) If this is a requirements contract (*i.e.*, includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.
- (d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 5 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(I.39) FAR 52.216-22 INDEFINITE QUANTITY (OCT 1995)

- (a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.
- (b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."
- (c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- (d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after 12 months beyond the expiration date of the contract period.

(I.41) FAR 52.217-9 -- OPTION TO EXTEND THE TERM OF THE CONTRACT (Mar

2000)

(a) The Government may extend the term of this contract by written notice to the Contractor within any time period prior to the expiration of the contract: provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 30 calendar days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 10 years.

(I.60) FAR 52.222-42, STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 2014)

In compliance with the Service Contract Labor Standards statute and the regulations of the Secretary of Labor (29 CFR part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only: It is not a Wage Determination

Employee	Class	Monetary Wage*
Administrative Assistant	GS-7	19.18
Clerk	GS-4	13.84
Maintenance Scheduler	GS-4	13.84
Secretary	GS-6	17.26
Computer Operator	GS-8	21.24
Engineering Technician	GS-7	19.18
Lab Technician	GS-6	17.26
Environmental Technician	GS-7	19.18
Carpenter	WG-9	22.39
Electrician	WG-10	23.58
Pipefitter	WG-10	23.58
Painter	WG-9	22.39
Laborer	WG-3	14.93
Heavy Equipment Operator	WG-10	23.58
HVAC Technician	WG-10	23.58
Janitor	WG-2	13.53
Fork Lift Operator	WG-5	17.66
Shipping/Receiving	WG-4	16.36
Well Driller	WG-10	23.58
Boiler Operator	WG-10	23.58
Water Treatment Operator	WG-9	22.39
Truck Driver	WG-8	21.29

*No Collective Bargaining Agreement (CBA) covered positions are listed in the above.

chart.

FRINGE BENEFITS

Annual Leave - Receives 13 days paid leave for service up to 3 years; 20 days for 3 to 15 years service; and 26 days for 15 years service or over.

Sick Leave - Receives 13 days paid leave per year.

Holidays - Receives 11 paid holidays per year.

Health Insurance - Government pays up to 72% of health insurance.

Group Life Insurance - Government pays one-third of the cost of the basic life insurance premium.

Retirement - The Government provides three retirement plans identified as the Civil Service Retirement System (CSRS), the Federal Employees Retirement System (FERS), and the CSRS Offset. Under the CSRS, the Government contributes 7% of the employees' base pay towards the retirement benefit and 1.45% towards Medicare. Under the FERS, the Government contributes 11.2% of the employees' base pay towards a basic benefit plan, 6.2% to Social Security, 1.45% towards Medicare, and 1% (plus matching contributions of up to 4% of basic pay, depending on employees' contributions) to a thrift savings plan. Under the CSRS Offset, the Government contributes 0.8% of the employees' base pay towards the retirement benefit, 6.2% to Social Security, and 1.45% towards Medicare.

Part-time Federal employees receive pro rata annual leave, sick leave, holiday leave, health insurance, and group life insurance benefits based on the number of hours worked.

(I.69) FAR 52.223-7, NOTICE OF RADIOACTIVE MATERIALS (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, 60 days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

* The Contracting Officer shall insert the number of days required in advance of delivery of the item or completion of the servicing to assure that required licenses are obtained and appropriate personnel are notified to institute any necessary safety and health precautions. See FAR [23.601](#)(d).

(b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall-

(1) Be submitted in writing;

(2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

(3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

(c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

(d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(I.70) FAR 52.223-9, ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED ITEMS (MAY 2008)

(a) *Definitions.* As used in this clause—

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.”

“Recovered material” means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material content for EPA designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post-consumer material content; and

(2) Submit this estimate to the Contracting Officer.

(I.123) FAR 52.247-67, SUBMISSION OF TRANSPORTATION DOCUMENTS FOR AUDIT (FEB 2006)

(a) The Contractor shall submit to the address identified below, for prepayment audit, transportation documents on which the United States will assume freight charges that were paid –

(1) By the Contractor under a cost-reimbursement contract; and

(2) By a first-tier subcontractor under a cost-reimbursement subcontract thereunder.

(b) Cost-reimbursement Contractors shall only submit for audit those bills of lading with freight shipment charges exceeding \$100. Bills under \$100 shall be retained on-site by the Contractor and made available for on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.

(c) Contractors shall submit the above referenced transportation documents to—

[To be filled in by Contracting Officer]

(I.156) DEAR 952.242-70, TECHNICAL DIRECTION (DEC 2000)

(a) Performance of the work under this contract shall be subject to the technical direction of the DOE Contracting Officer's Representative (COR). The term "technical direction" is defined to include, without limitation:

(1) Providing direction to the Contractor that redirects contract effort, shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details, or otherwise serves to accomplish the contractual SOW.

(2) Providing written information to the Contractor that assists in interpreting drawings, specifications, or technical portions of the work description.

(3) Reviewing and, where required by the contract, approving, technical reports, drawings, specifications, and technical information to be delivered by the Contractor to the DOE.

- (b) The Contractor will receive a copy of the written COR designation from the CO. It will specify the extent of the COR's authority to act on behalf of the CO.
- (c) Technical direction must be within the scope of work stated in the contract. The COR does not have the authority to, and may not, issue any technical direction that:
 - (1) Constitutes an assignment of additional work outside the SOW;
 - (2) Constitutes a change as defined in the contract clause entitled "Changes;"
 - (3) Changes contract cost, the fee (if any), or the time required for contract performance;
 - (4) Changes any of the expressed terms, conditions or specifications of the contract; or
 - (5) Interferes with the Contractor's right to perform to the terms and conditions of the contract.
- (d) All technical direction shall be issued in writing by the COR.
- (e) The Contractor must proceed promptly with the performance of technical direction duly issued by the COR in the manner prescribed by this clause and within its authority under the provisions of this clause. If, in the opinion of the Contractor, any instruction or direction by the COR falls within one of the categories defined in (c)(1) through (c)(5) of this clause, the Contractor must not proceed and must notify the CO in writing within five working days after receipt of any such instruction or direction and must request the CO to modify the contract accordingly. Upon receiving the notification from the Contractor, the CO must:
 - (1) Advise the Contractor in writing within 30 days after receipt of the Contractor's letter that the technical direction is within the scope of the contract effort and does not constitute a change under the Changes clause of the contract;
 - (2) Advise the Contractor in writing within a reasonable time that the DOE will issue a written change order; or
 - (3) Advise the Contractor in writing within a reasonable time not to proceed with the instruction or direction of the COR.
- (f) A failure of the Contractor and CO either to agree that the technical direction is within the scope of the contract or to agree upon the contract action to be taken with respect the technical direction will be subject to the provisions of the clause in Section I, 52.233-1 "Disputes."

(I.162) DEAR 970.5204-3, ACCESS TO AND OWNERSHIP OF RECORDS (OCT 2014)

- (a) *Government-owned records.* Except as provided in paragraph (b) of this clause, all records acquired or generated by the contractor in its performance of this contract, including records series described within the contract as Privacy Act systems of records, shall be the property of the Government and shall be maintained in accordance with 36 CFR, Chapter XII, Subchapter B, “Records Management.” The contractor shall ensure records classified as Privacy Act system of records are maintained in accordance with FAR 52.224.2 “Privacy Act.”
- (b) *Contractor-owned records.* The following records are considered the property of the contractor and are not within the scope of paragraph (a) of this clause.
- (1) Employment-related records (such as worker’s compensation files; employee relations records, records on salary and employee benefits; drug testing records, labor negotiation records; records on ethics, employee concerns; records generated during the course of responding to allegations of research misconduct; records generated during other employee related investigations conducted under an expectation of confidentiality; employee assistance program records; and personnel and medical/health related records and similar files), and nonemployee patient medical/health-related records, excluding records operated and maintained by the Contractor in Privacy Act system of records. Employee-related systems of record may include, but are not limited to: Employee Relations Records (DOE–3), Personnel Records of Former Contractor Employees (DOE–5), Payroll and Leave Records (DOE–13), Report of Compensation (DOE–14), Personnel Medical Records (DOE–33), Employee Assistance Program (EAP) Records (DOE–34) and Personnel Radiation Exposure Records (DOE–35).
 - (2) Confidential contractor financial information, internal corporate governance records and correspondence between the contractor and other segments of the contractor located away from the DOE facility (i.e., the contractor’s corporate headquarters);
 - (3) Records relating to any procurement action by the contractor, except for records that under 48 CFR 970.5232–3 are described as the property of the Government; and
 - (4) Legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privileges; and
 - (5) The following categories of records maintained pursuant to the technology transfer clause of this contract:
 - (i) Executed license agreements, including exhibits or appendices containing information on royalties, royalty rates, other financial information, or commercialization plans, and all related documents, notes and correspondence.

- (ii) The contractor's protected Cooperative Research and Development Agreement (CRADA) information and appendices to a CRADA that contain licensing terms and conditions, or royalty or royalty rate information.
 - (iii) Patent, copyright, mask work, and trademark application files and related contractor invention disclosures, documents and correspondence, where the contractor has elected rights or has permission to assert rights and has not relinquished such rights or turned such rights over to the Government.
- (c) *Contract completion or termination.* Upon contract completion or termination, the contractor shall ensure final disposition of all Government-owned records to a Federal Record Center, the National Archives and Records Administration, to a successor contractor, its designee, or other destinations, as directed by the Contracting Officer. Upon the request of the Government, the contractor shall provide either the original contractor-owned records or copies of the records identified in paragraph (b) of this clause, to DOE or its designees, including successor contractors. Upon delivery, title to such records shall vest in DOE or its designees, and such records shall be protected in accordance with applicable federal laws (including the Privacy Act) as appropriate. If the contractor chooses to provide its original contractor-owned records to the Government or its designee, the contractor shall retain future rights to access and copy such records as needed.
- (e) *Applicability.* This clause applies to all records created, received and maintained by the contractor without regard to the date or origination of such records including all records acquired from a predecessor contractor.
- (f) *Records maintenance and retention.* Contractor shall create, maintain, safeguard, and disposition records in accordance with 36 CFR Chapter XII, Subchapter B, "Records Management" and the National Archives and Records Administration (NARA)-approved Records Disposition Schedules. Records retention standards are applicable for all classes of records, whether or not the records are owned by the Government or the contractor. The Government may waive application of the NARA-approved Records Disposition Schedules, if, upon termination or completion of the contract, the Government exercises its right under paragraph (c) of this clause to obtain copies of records described in paragraph (b) and delivery of records described in paragraph (a) of this clause.
- (g) *Subcontracts.* The contractor shall include the requirements of this clause in all subcontracts that contain the *Integration of Environment, Safety and Health into Work Planning and Execution* clause at 952.223–71 or, the *Radiation Protection and Nuclear Criticality* clause at 952.223–72.

(I.182) 52.225-9 Buy American—Construction Materials (May 2014)

- (a) *Definitions.* As used in this clause--

“Commercially available off-the-shelf (COTS) item”—

(1) Means any item of supply (including construction material) that is—

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

“Component” means an article, material, or supply incorporated directly into a construction material.

“Construction material” means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

“Cost of components” means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

“Domestic construction material” means—

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if—

(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic; or

(ii) The construction material is a COTS item.

“Foreign construction material” means a construction material other than a domestic construction material.

“United States” means the 50 States, the District of Columbia, and outlying areas.

(b) *Domestic preference.*

(1) This clause implements the 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item. (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows:
_____ [*Contracting Officer to list applicable excepted materials or indicate “none”*]

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) *Request for determination of inapplicability of the Buy American statute.*

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) *
<i>Item 1</i>			
Foreign construction material			
Domestic construction material			
<i>Item 2</i>			
Foreign construction material			
Domestic construction material			

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

*[*Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]*

I.183 52.225-11 Buy American—Construction Materials Under Trade Agreements (Feb 2016) Alt I (May 2014)

(a) *Definitions.* As used in this clause--

“Caribbean Basin country construction material” means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different construction material distinct from the materials from which it was transformed.

“Commercially available off-the-shelf (COTS) item”—

- (1) Means any item of supply (including construction material) that is—
 - (i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);
 - (ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

“Component” means an article, material, or supply incorporated directly into a construction material.

“Construction material” means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

“Cost of components” means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

“Designated country” means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement (WTO GPA) country (Armenia, Aruba, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, or United Kingdom);

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Korea (Republic of), Mexico, Morocco, Nicaragua, Oman, Panama, Peru, or Singapore);

(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, British Virgin Islands, Curacao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sint Eustatius, Sint Maarten, or Trinidad and Tobago).

“Designated country construction material” means a construction material that is a WTO GPA country construction material, an FTA country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

“Domestic construction material” means—

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if—

(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic: or

(ii) The construction material is a COTS item.

“Free Trade Agreement country construction material means” a construction material that--

(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a new and different construction material distinct from the materials from which it was transformed.

“Foreign construction material” means a construction material other than a domestic construction material.

“Least developed country construction material” means a construction material that--

(1) Is wholly the growth, product, or manufacture of a least developed country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

“United States” means the 50 States, the District of Columbia, and outlying areas.

“WTO GPA country construction material” means a construction material that--

(1) Is wholly the growth, product, or manufacture of a WTO GPA country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

(b) *Construction materials.*

(1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item. (See FAR 12.50-5(a)(2)). In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements (FTAs) apply to this acquisition. Therefore, the Buy American restrictions are waived for designated country construction materials.

(2) The Contractor shall use only domestic or designated country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows: _____ [*Contracting Officer to list applicable excepted materials or indicate “none”*]

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Statute.

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of

the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) *Data*. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) *
<i>Item 1</i>			
Foreign construction material			
Domestic construction material			
<i>Item 2</i>			
Foreign construction material			
Domestic construction material			

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]*

(End of clause)

Alternate I (May 2014). As prescribed in [25.1102](#) (c)(3), add the following definition of “Bahrainian or Mexican construction material” to paragraph (a) of the basic clause, and substitute the following paragraphs (b)(1) and (b)(2) for paragraphs (b)(1) and (b)(2) of the basic clause:

“Bahrainian, Mexican, or Omani construction material” means a construction material that—

- (1) Is wholly the growth, product, or manufacture of Bahrain or Mexico; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Bahrain or Mexico into a

new and different construction material distinct from the materials from which it was transformed.

(b) *Construction materials.*

(1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item (See FAR 12.505(a)(2)). In addition, the Contracting Officer has determined that the WTO GPA and all the Free Trade Agreements except the Bahrain FTA, NAFTA, and the Oman FTA apply to this acquisition. Therefore, the Buy American statute restrictions are waived for designated country construction materials other than Bahrainian, Mexican, or Omani construction materials.

(2) The Contractor shall use only domestic, or designated country construction material other than Bahrainian, Mexican, or Omani construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(I.219) – FAR 52.223-99 ENSURING ADEQUATE COVID-19 SAFETY PROTOCOLS FOR FEDERAL CONTRACTORS (OCT 2021) (DEVIATION)

(a) Definition. As used in this clause – United States or its outlying areas means—

- (1) The fifty states;
- (2) The District of Columbia;
- (3) The commonwealths of Puerto Rico and the Northern Mariana Islands;
- (4) The territories of American Samoa, Guam, and the United States Virgin Islands;
- and
- (5) The minor outlying islands of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Navassa Island, Palmyra Atoll, and Wake Atoll.

(b) Authority. This clause implements Executive Order 14042, Ensuring Adequate COVID Safety Protocols for Federal Contractors, dated September 9, 2021 (published in the Federal Register on September 14, 2021, 86 FR 50985).

(c) Compliance. The Contractor shall comply with all guidance, including guidance conveyed through Frequently Asked Questions, as amended during the performance of this contract, for contractor or subcontractor workplace locations published by the Safer Federal Workforce Task Force (Task Force Guidance) at <https://www.saferfederalworkforce.gov/contractors/>.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in subcontracts at any tier that exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation 2.101 on the date of the subcontract award, and are for services, including construction, performed in whole or in part within the United States or its outlying areas.

LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J – LIST OF ATTACHMENTS

ATTACHMENT J-1: SMALL BUSINESS SUBCONTRACTING PLAN (Insert at Contract Award)

ATTACHMENT J-2: RESERVED

ATTACHMENT J-3: RESERVED

ATTACHMENT J-4: REQUIREMENT SOURCES AND IMPLEMENTING DOCUMENTS (LIST A) AND LIST OF APPLICABLE DOE DIRECTIVES (LIST B)

ATTACHMENT J-5: RESERVED

ATTACHMENT J-6: PERFORMANCE GUARANTEE AGREEMENT (Insert at Contract Award)

ATTACHMENT J-7: RESERVED

ATTACHMENT J-8: RESERVED

ATTACHMENT J-9: RESERVED

ATTACHMENT J-10: U.S. DEPARTMENT OF LABOR WAGE DETERMINATION

ATTACHMENT J-11: COMMUNITY COMMITMENT PLAN (Insert at Contract Award)

ATTACHMENT J-12: GOVERNMENT FURNISHED SERVICES AND ITEMS
a. Government Furnished Services and Interface Requirements Matrix
b. Government Furnished Items

ATTACHMENT J-13: DELIVERABLES

ATTACHMENT J-14: PERFORMANCE EVALUATION MEASUREMENT PLAN

ATTACHMENT J-15: FY15/FY16 EM PERFORMANCE AGREEMENT

ATTACHMENT J-16: RESERVED

ATTACHMENT J-17: ACRONYM LIST

ATTACHMENT J-18: PGDP D&R FACILITIES/AREAS ASSIGNMENT RESPONSIBILITY

ATTACHMENT J-19: CO-GENERATOR AGREEMENT

ATTACHMENT J-20: CONTRACT SECURITY CLASSIFICATION SPECIFICATION
FORM (Contractor signs at award)

ATTACHMENT J-21: ADVANCED AGREEMENT

SECTION J - ATTACHMENT J-1
SMALL BUSINESS SUBCONTRACTING PLAN

The data and information on all pages of this Subcontracting Plan are proprietary. This Subcontracting Plan and any information contained herein shall not be disclosed outside the government and shall not be disclosed in whole or in part for other than purposes of responding to client solicitations.

**Memorandum of Agreement Regarding
Small Business Subcontracting Plan
for
FOUR RIVERS NUCLEAR PARTNERSHIP, LLC**

SMALL BUSINESS SUBCONTRACTING PLAN

DATE: September 21, 2016

COMPANY NAME: FOUR RIVERS NUCLEAR PARTNERSHIP, LLC

SUBCONTRACTING PLAN CONTACT: Willie Franklin

ADDRESS: 9189 S. Jamaica Street, Englewood, CO 80112

PHONE / FAX: [REDACTED]

EMAIL: [REDACTED]

INTERNET ADDRESS: www.fourriversnuclear.com

SOLICITATION OR CONTRACT NUMBER: DE-SOL-0008746

ITEM/SERVICE: Paducah Gaseous Diffusion Plant Deactivation and Remediation

(k) Small Business Subcontracting Plan

[illegible]

ii.

vi.

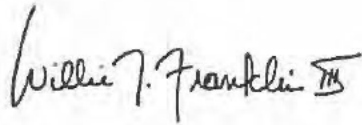
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ix.

[REDACTED]



[REDACTED]

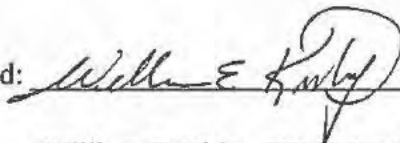


Signed:

Date:

8/31/2016

Willie Franklin, FRNP Contract Administrator

Signed: 

Date:

9/1/16

William E. Kirby, FRNP President and Program Manager

Signed:

Date:

Contracting Officer

180504161139DEN

ATTACHMENT J-4:
REQUIREMENT SOURCES AND IMPLEMENTING DOCUMENTS (LIST A)
AND LIST OF APPLICABLE DOE DIRECTIVES (LIST B)

LIST A	
Document Number	Title
10 CFR 61	Low Level Waste Policy Act Amendments
10 CFR 71	Packaging and Transportation of Radioactive Material
10 CFR 707	Workplace Substance Abuse Programs at DOE Sites
10 CFR 708	DOE Contractor Employee Protection Program
10 CFR 710	Criteria And Procedures For Determining Eligibility For Access To Classified Matter or Special Nuclear Material
10 CFR 712	Human Reliability Program
10 CFR 719	Contractor Legal Management Requirements
10 CFR 810	Assistance to Foreign Atomic Energy Activities
10 CFR 820	Procedural Rules for DOE Nuclear Activities
10 CFR 824	Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations
10 CFR 830	Nuclear Safety Management
10 CFR 835	Occupational Radiation Protection, Amended
10 CFR 840	Extraordinary Nuclear Occurrences
10 CFR 850	Chronic Beryllium Disease Prevention Program
10 CFR 851	Worker Safety and Health Program
10 CFR 860	Trespassing on Department of Energy Property
10 CFR 1004	Freedom of Information Act (FOIA)
10 CFR 1008	Records Maintained on Individuals (PRIVACY ACT)
10 CFR 1016	Safeguarding of Restricted Data
10 CFR 1017	Identification and Protection of Unclassified Controlled Nuclear Information
10 CFR 1021	DOE National Environmental Policy Act Implementing Procedures
10 CFR 1044	Security Requirements for Protected Disclosure Under Section 3164 of the National Defense Authorization Act for Fiscal Year 2000
10 CFR 1045	Nuclear Classification and Declassification
10 CFR 1046	Physical Protection of Security Interests; Protective Force Personnel
10 CFR 1060	Payment of Travel Expenses of Persons Who Are Not Government Employees
20 CFR 617	Trade Adjustment Assistance for Workers Under the Trade Act of 1974
20 CFR 639	Worker Readjustment and Retraining Notification

LIST A	
Document Number	Title
29 CFR 4	Labor Standards for Federal Service Contracts
29 CFR 5.7	Reports to the Secretary of Labor
29 CFR 6	Rules of Practice for Administrative Proceedings Enforcing Labor Standards in Federal and Federally Assisted Construction Contracts and Federal Service Contracts
29 CFR 8	Practice Before the Administrative Review Board with Regard to Federal Service Contracts
29 CFR 24	Procedures for Handling of Retaliation Complaints Under Federal Employee Protection Statutes
29 CFR 30	Equal Employment Opportunity in Apprenticeship and Training
29 CFR 70	Production or Disclosure of Information on Materials
29 CFR 70A	Protection of Individual Privacy in Records
29 CFR 71	Protection of Individual Privacy and Access to Records under the Privacy Act of 1974
29 CFR 516	Records to be Kept by Employers
29 CFR 519	Employment of Full-Time Students at Subminimum Wages
29 CFR 520	Employment of Student-Learners
29 CFR 525	Employment of Workers with Disabilities Under Special Certificates
29 CFR 528	Annulment or Withdrawal of Certificates for the Employment of Student-Learners, Apprentices, Learners, Messengers, Handicapped Persons, Student-Workers, and Full-Time Students in Agricultural or in Retail Service Establishments at Special Minimum Wage Rate
29 CFR 531	Wage Payments Under the Fair Labor Standards Act of 1938
29 CFR 541	Defining and Delimiting the Exemptions for Executives, Administrative, Professional, Computer and Outside Sales employees (Fair Labor Standards Act)
29 CFR 548	Authorization of Established Basic Rates for Computing Overtime Pay
29 CFR 825	Family Medical Leave Act of 1993
29 CFR 1602	Recordkeeping and Reporting Requirements under Title VII and the ADA
29 CFR 1608	Affirmative Action Appropriation Under Title VII of the Civil Rights Act of 1964, as amended
29 CFR 1611	Privacy Act Regulations
29 CFR 1620	Equal Pay Act
29 CFR 1625	Age Discrimination in Employment Act
29 CFR 1627	Records to be Made or kept Relating to Age: Notices to be Posted: Administrative Exemptions
29 CFR 1904	Recording and Reporting Occupational Injuries and Illnesses
29 CFR 1910	Occupational Safety and Health Administration

LIST A	
Document Number	Title
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 2520	Reporting and Disclosure Under Employee Retirement Income Security Act of 1974
29 CFR 4041A	Termination of Multiemployer Plans
32 CFR 2001	Classified National Security Information
34 CFR 395	Vending Facility Program for the Blind on Federal and Other Property
36 CFR Chapter 12, Sub Chapter B	Records Management
36 CFR 1236	Electronic Records Management
36 CFR 1237	Audiovisual, Cartographic, and Related Records Management
40 CFR 61	National Emission Standards for Hazardous Air Pollutants
40 CFR 116	Designation of Hazardous Substances
40 CFR 117	Determination of Reportable Quantities for Hazardous Substances
40 CFR 136	Guidelines Establishing Test Procedures for the Analysis of Pollutants
40 CFR 247	Comprehensive Procurement Guideline for Products Containing Recovered Materials
40 CFR 260-282	Resource Conservation and Recovery Act (RCRA)
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan (CERCLA—National Contingency Plan)
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 350-372	SARA Title III
40 CFR 355	Emergency Planning and Community Right to Know Act (EPCRA)
40 CFR 1500-1508	Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act
41 CFR 60-1	Obligations of Contractors and Sub Contractors
41 CFR 60-2	Affirmative Action Programs
41 CFR 60-3	Uniform Guidelines on Employee Selection Procedures
41 CFR 60-20	Sex Discrimination Guidelines
41 CFR 60-30	Rules of Practice for Administrative Proceedings to Enforce Equal Opportunity Under Executive Order 11246
41 CFR 60-50	Guidelines on Discrimination Because of Religion or National Origin
41 CFR 60-300	Affirmative Action Obligations of Contractors and Subcontractors Regarding Disabled, Recently Separated Veterans, Other Protected Veterans, and Armed Force Service Medal Veterans
41 CFR 60-741	Affirmative Action and Nondiscrimination Obligations of Contractors and Subcontractors Regarding Individuals with Disabilities

LIST A	
Document Number	Title
41 CFR 60-742	Procedures for Complaints/Charges of Employment Discrimination Based on Disability Filed Against Employers Holding Government Contracts or Subcontracts
41 CFR 101	Federal Property Management Regulations
41 CFR 102	Federal Management Regulation
41 CFR 109	Department of Energy Property Management Regulations
48 CFR Chapter 1	Federal Acquisition Regulation
48 CFR Chapter 9	Department of Energy
48 CFR 22	Application of Labor Laws to Government acquisitions
48 CFR 27.405	Other Data Rights Provisions
48 CFR 31	Contract Cost Principles and Procedures
48 CFR 33.104	Protests to GAO
48 CFR 45	Government Property
48 CFR 52	Solicitation Provisions and Contract Clauses
48 CFR Chapter 99	Cost Accounting Standards Board, Office of Federal Procurement Policy, Office of Management and Budget
48 CFR Part 970.5203-2	Performance Improvement and Collaboration
48 CFR Part 970.5223-1	Integration of Environmental, Safety, and Health into the Work Planning and Execution
48 CFR 9903.101	Cost Accounting Standards
49 CFR 171	General Information, Regulations, and Definitions
49 CFR 172	Hazardous Material Table, Specials Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans
49 CFR 173	Shippers-General Requirements for Shipments and Packaging's
49 CFR 174	Carriage by Rail
49 CFR 177	Carriage by Public Highway
50 CFR 17	Natural Resource Management
50 CFR 402	Interagency Cooperation Endangered Species Act of 1973, as amended
5 USC 552 et seq.	Freedom of Information Act (FOIA)
5 USC Appendix 2	Freedom Advisory Committee Act (FACA)
15 USC 2601	Toxic Substances Control Act (TSCA)
15 USC 2622	Employee Protection
18 USC 930	Possession of firearms and dangerous weapons in Federal Facilities
18 USC 1001	Statements or entries generally
18 USC 2071	Concealment, removal, or mutilation generally

LIST A	
Document Number	Title
18 USC 3571	Sentence of Fine
20 USC 107	Operation of vending facilities (aka: Randolph-Sheppard Vending Stand Act, as amended)
29 USC 401 et seq.	Labor-Management Reporting and Disclosure Act of 1959
33 USC 1251	Clean Water Act (CWA)
40 USC 483	Federal Property Administrative Services Act
41 USC 422	Cost Accounting Standard Board
42 USC 2021 et seq.	Low-Level Radioactive Waste Policy Act, as amended
42 USC 2168 et seq.	Prohibition Against Dissemination of Certain Unclassified Information
42 USC 2278(a)	Trespass on Commission Installations
42 USC 2286	Defense Nuclear Facilities Safety Board
42 USC 2297h-8	Employee Protections
42 USC 4321	National Environmental Policy Act (NEPA)
42 USC 6901	Resource Conservation & Recover Act (RCRA)
42 USC 7401	Clean Air Act (CAA)
42 USC 7256	National Defense Authorization Act
42 USC 7512	Classification and Attainment Dates
42 USC 9601	Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
42 USC 9605	CERCLA Amendment
42 USC 9620	CERCLA Federal Facility Agreement (FFA)
42 USC 11001-11050	CERCLA Emergency Planning and Community Right to Know Act (EPCRA)
42 USC 11411	Title V, of the Steward B. McKinney Homeless Assistance Act, as amended
42 USC 13101-13109	Pollution Prevention Act (PPA)
42 USC 2011-2259 et seq.	The Atomic Energy Act (AEA) of 1954, As Amended
44 USC Chapter 21	National Archives and Records Administration
44 USC Chapter 29	Records Management by the Archivist of the United States and by the Administrator of General Studies
44 USC Chapter 31	Records Management by Federal Agencies
44 USC Chapter 33	Disposal of Records
44 USC Chapter 35	Coordination of Federal Information Policy
44 USC Chapter 36	Management and Promotion of Electronic Government Services
AASHTO MCEB-2	Manual for Condition Evaluation of Bridges, 2 nd Edition with 2011, 2013, and 2014 Interim Revisions

LIST A	
Document Number	Title
	Manual for Railway Engineering, American Railway Engineering and Maintenance-of-Way Association
Executive Order 12580	Superfund Implementation
Executive Order 12829, (As Amended by E.O. 12885)	National Industrial Security Program
Executive Order 13221	Energy Efficient Standby Power Devices
Executive Order 13423	Strengthening Federal Environmental, Energy, and Transportation Management
Executive Order 13514	Federal Leadership in Environmental, Energy and Economic Performance
Executive Order 13526	Classified National Security Information
Executive Order 13556	Controlled Unclassified Information
Executive Order 13658	Establishing a Minimum Wage for Contractors
Executive Order 13834	Efficient Federal Operations
Homeland Security Presidential Directive (HSPD)-12	Policy for a Common Identification Standard for Federal Employees and Contractors
ISOO Notice 2011-02	Further Guidance and Clarification on Coming Atomic Energy Information and Classified National Security Information (Implements Executive Order 13526)
M-11-11	Executive Office of the President, Office of Management and Budget, Memorandum for the Heads of Executive Departments and Agencies (Continued Implementation of Homeland Security Presidential Directive (HSPD) 12 – Policy for a Common Identification Standard for Federal Employees and Contractors
M-12-18	Managing Government Records Directives, Dated August 24, 2012
National Security Decision Directive (NSDD) 298	National Operations Security Program
Public Law 94-469	Toxic Substances Control Act
Public Law 100-679	Office of Federal Procurement Policy Act Amendments of 1988
Public Law 102-368	Federal Facility Compliance Act of 1992
Public Law 102-484	National Defense Authorization Act of 1993
Public Law 102-486	Energy Policy Act of 1992
Public Law 103-160	National Defense Authorization Act for Fiscal Year 1994
Public Law 103-355	Federal Acquisition Streamlining Act of 1994

LIST A	
Document Number	Title
Public Law 106-65, Section 3149	Supplement to Plan for Declassification of Restricted Data and Formerly Restricted Data
Public Law 106-398, Section 3193	Frequency of Reports of Inadvertent Releases of Restricted Data and Formerly Restricted Data
Public Law 107-347	The E-Government Act of 2002
TSCA-UE-FFCA, Feb 1992	Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement

The Contractor shall comply with the Contractor Requirements Documents of DOE Directives identified under LIST OF APPLICABLE DOE DIRECTIVES (LIST B). DOE Directives may be found at <http://www.directives.doe.gov/>.

List B	
DOE Directives	Subject
EM-QA-001, Latest Revision	Environmental Management Quality Assurance Program (QAP)
Classification Bulletin GEN-16, Revision 2	"No Comment" Policy on Classified Information in the Open Literature
DOE EM	Office of Environmental Management Operations Activity Protocol, Revision 0, 2/28/2012
DOE O 140.1A	Interface with the Defense Nuclear Facilities Safety Board
DOE O 142.2A Admin Chg 1	Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
DOE O 142.3B	Unclassified Foreign National Access Program
DOE O 150.1A	Continuity Programs
DOE O 151.1D Chg 1 (MinChg)	Comprehensive Emergency Management System
DOE O 200.1A, Chg. 1 (MinChg)	Information Technology Management
DOE O 203.1	Limited Personal Use of Government Office Equipment including Information Technology
DOE O 203.2	Mobile Technology Management
DOE O 205.1C	Department of Energy Cyber Security Program
DOE O 206.1 Chg 1 (MinChg)	Department of Energy Privacy Program
DOE O 206.2	Identity, Credential, and Access Management (ICAM)
DOE O 210.2A	DOE Corporate Operating Experience Program
DOE O 221.1B	Reporting Fraud, Waste, and Abuse to the Office of the Inspector General
DOE O 221.2A	Cooperation with the Office of Inspector General
DOE O 225.1B	Accident Investigations
DOE O 226.1B	Implementation of DOE Oversight Policy
DOE O 227.1A Chg 1 (Admin Chg)	Independent Oversight Program

List B	
DOE Directives	Subject
DOE O 231.1B, Admin. Chg. 1	Environment, Safety, and Health Reporting
DOE O 232.2A Chg 1 (MinChg)	Occurrence Reporting and Processing of Operations Information
DOE O 243.1B, Admin. Chg. 1	Records Management Program
DOE O 251.1D Chg 1 (Admin Chg)	Departmental Directives Program
DOE O 252.1A, Admin. Chg. 1	Technical Standards Program
DOE O 311.1B Chg 1 (LtdChg)	Equal Employment Opportunity and Diversity Program
DOE O 350.1 Chg 7 (LtdChg)	Contractor Human Resource Management Programs
DOE O 350.3 Chg 1 (MinChg)	Labor Standards Compliance, Contractor Labor Relations, and Contractor Workforce Restructuring Programs
DOE P 364.1	Health and Safety Training Reciprocity
DOE O 410.2, Admin. Chg. 1	Management of Nuclear Materials
DOE O 412.1A, Admin. Chg. 1	Work Authorization System
DOE O 413.3B Chg 6 (LtdChg)	Program and Project Management for the Acquisition of Capital Assets
DOE G 413.3-7A, Admin. Chg. 1	Risk Management Guide
DOE G 414.1-4	Safety Software Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance
DOE O 414.1D Chg 2 (LtdChg)	Quality Assurance
DOE O 420.1C Chg 3 (LtdChg)	Facility Safety
DOE O 422.1 Chg 3 (MinChg)	Conduct of Operations
DOE O 425.1D Chg 2 (MinChg)	Verification of Readiness to Start Up or Restart Nuclear Facilities
DOE O 426.2, Admin. Chg. 1	Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities
DOE O 430.1C Chg 2 (AdminChg)	Real Property Asset Management
DOE O 433.1B, Admin. Chg. 1	Maintenance Management Program for DOE Nuclear Facilities
DOE O 435.1 Chg. 2 (AdminChg)	Radioactive Waste Management
DOE N 435.1	Contact-Handled and Remote-Handled Transuranic Waste Packaging
DOE M 435.1-1 Chg 3 (LtdChg)	Radioactive Waste Management Manual
DOE O 436.1	Departmental Sustainability
DOE M 441.1-1, Admin. Chg. 1	Nuclear Material Packaging Manual
DOE O 442.1B	Department of Energy Employee Concerns Program
DOE O 442.2 Chg 1 (PgChg)	Differing Professional Opinions for Technical Issues Involving Environment, Safety and Health Technical Concerns
DOE O 450.2, Chg. 1 (MinChg)	Integrated Safety Management
DOE P 451.1	National Environmental Policy Act Compliance Program
DOE O 458.1 Chg 4 (LtdChg)	Radiation Protection of the Public and the Environment
DOE O 460.1D	Hazardous Materials Packaging and Transportation Safety
DOE O 460.2A	Departmental Materials Transportation and Packaging Management
DOE M 460.2-1A	Radioactive Material Transportation Practices Manual
DOE O 461.1C Chg 1 (MinChg)	Packaging and Transportation for Offsite Shipment of Materials of National Security Interest
DOE O 461.2	Onsite Packaging and Transfer of Materials of National Security Interest

List B	
DOE Directives	Subject
DOE O 470.3C Chg 1 (LtdChg)	Design Basis Threat (DBT) Order
DOE O 470.4B Chg 3 (LtdChg)	Safeguards and Security Program
DOE O 470.5	Insider Threat program
DOE O 471.1B	Identification and Protection of Unclassified Controlled Nuclear Information
DOE O 471.3 Chg 1 (AdminChg)	Identifying and Protecting Official Use Only Information
DOE M 471.3-1 Chg 1 (AdminChg)	Manual for Identifying and Protecting Official Use Only Information
DOE O 471.5	Special Access Programs
DOE O 471.6 Chg 3 (AdminChg)	Information Security
DOE O 472.2 Chg 2 (PgChg)	Personnel Security
DOE O 473.3A, Chg. 1	Protection Program Operations
DOE O 474.2, Chg. 4 (PgChg)	Nuclear Material Control and Accountability
DOE O 475.1	Counterintelligence Program
DOE O 475.2B	Identifying Classified Information
DOE O 486.1A	Foreign Government Sponsored or Affiliated Activities
DOE O 520.1B	Financial Management and Chief Financial Officer Responsibilities
DOE O 522.1A	Pricing of Departmental Materials and Services
DOE O 550.1 Chg 1 (LtdChg)	Official Travel
DOE G 580.1-1A	Personal Property
DOE O 3731.1, Chg. 1	Suitability, Position Sensitivity Designations, and Related Personnel Matters
DOE-HDBK-1169-2003	DOE Handbook Nuclear Air Cleaning Handbook
DOE-HDBK-1208-2012	Accident Investigation and Prevention
DOE-HDBK-1216-2015	Environmental Radiological Effluent Monitoring and Environmental Surveillance
DOE-HDBK-1226-2019	Conduct of Operations Implementation
DOE-STD-1027-92	Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports
DOE-STD-1066-2016	Fire Protection
DOE-STD-1090-2020	Hoisting And Rigging
DOE-STD-1098-2017	Radiological Control
DOE-STD-1186-2016	Specific Administrative Controls
DOE-STD-1187-2019	Beryllium-Associated Worker Registry Data Collection and Management Guidance
DOE-STD-1189-2016	Integration of Safety into the Design Process
DOE-STD-1194-2019	Nuclear Materials Control and Accountability
DOE-STD-1212-2019	Explosives Safety
DOE-STD-3011-2016	Preparation of Documented Safety Analysis for Interim Operations at DOE Nuclear Facilities
DOE-STD-3013-2018	Stabilization, Packaging, and Storage of Plutonium-Bearing Materials
DOE-STD-3020-2015	Specification for HEPA Filters Used by DOE Contractors
DOE-STD-3025-2007	Quality Assurance Inspection and Testing of HEPA Filters

List B	
DOE Directives	Subject
DOE-STD-5506-2021	Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities

SECTION J - ATTACHMENT J-6

PERFORMANCE GUARANTEE AGREEMENT



L.11 (i) PERFORMANCE GUARANTEE AGREEMENT



 **FOUR RIVERS
NUCLEAR PARTNERSHIP, LLC**



ATTACHMENT L-1
Performance Guarantee Agreement

For value received, and in consideration of, and to induce the United States (the Government) to enter into Contract DE- EM0004895 which resulted from Solicitation No. DE-SOL-0008746 for the **Paducah Gaseous Diffusion Plant Deactivation and Remediation** (Contract) dated 05/25/2017, by and between the Government and **Four Rivers Nuclear Partnership, LLC** (contractor), the undersigned, **CH2M HILL Constructors, Inc.** (Guarantor), a corporation incorporated in the State of **Delaware** with its principal place of business at **9189 South Jamaica Street, Englewood, Colorado 80112** 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 (c) 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 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 Government's 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 contract 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 ensure 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

September 21, 2016

Date

CH2M HILL Constructors, Inc.

Name of Corporation



Dyan L. Foss, Nuclear Sector Global Managing Director

Name and Position of Official Executing Performance Guarantee Agreement on Behalf of Guarantor

Sally Hill

Sally Hill, Assistant Secretary, CH2M HILL Constructors, Inc.

Attestation Including Application of Seal by an Official of Guarantor Authorized to Affix
Corporate Seal





ATTACHMENT L-1
Performance Guarantee Agreement

For value received, and in consideration of, and to induce the United States (the Government) to enter into Contract DE- EM0004895 **which resulted from Solicitation No. DE-SOL-0008746** for the **Paducah Gaseous Diffusion Plant Deactivation and Remediation** (Contract) dated 05/25/2017, by and between the Government and **Four Rivers Nuclear Partnership, LLC** (contractor), the undersigned, **Fluor Federal Services, Inc.** (Guarantor), a corporation incorporated in the State of **Washington** with its principal place of business at **100 Fluor Daniel Drive Greenville, SC. 29607-2770** 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 (c) 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 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 Government's 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 contract 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 ensure 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

September 21, 2016

Date

Fluor Federal Services, Inc.

Name of Corporation

J. Greg Meyer, Sr. Vice President of Operations, Fluor Federal Services, Inc.

Name and Position of Official Executing Performance Guarantee Agreement on Behalf of Guarantor

Brad H. Smith, Assistant Secretary

Attestation Including Application of Seal by an Official of Guarantor Authorized to Affix Corporate Seal



ATTACHMENT L-1
Performance Guarantee Agreement

For value received, and in consideration of, and to induce the United States (the Government) to enter into Contract DE- EM0004895 _____ which resulted from Solicitation No. DE-SOL-0008746 for the **Paducah Gaseous Diffusion Plant Deactivation and Remediation** (Contract) dated 05/25/2017 _____, by and between the Government and **Four Rivers Nuclear Partnership, LLC** (contractor), the undersigned, **BWXT Technical Services Group, Inc.** (Guarantor), a corporation incorporated in the State of **Delaware** with its principal place of business at **2016 Mt. Athos Road, Lynchburg, Virginia 24504** 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 (c) 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 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 Government's 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 contract 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 ensure 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

September 21, 2016.

Date

BWXT Technical Services Group, Inc.

Name of Corporation


Signature


William A. Fox III, President

Name and Position of Official Executing Performance Guarantee Agreement on Behalf of Guarantor

Attestation Including Application of Seal by an Official of Guarantor Authorized to Affix Corporate Seal

I certify that I am the Secretary of the corporation named as a Guarantor herein; that the officer who signed the Performance Guarantee Agreement on behalf of the Guarantor was

then President of said corporation; and that said officer was acting within the scope of his corporate powers.

By: 
Richard V. Anderson

Date: September 21, 2016

"REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT by direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
--------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------

Daniel W. Simms Director	Division of Wage Determinations	Wage Determination No.: 2015-4692 Revision No.: 13 Date Of Last Revision: 12/23/2019
-----------------------------	------------------------------------	--------------------------------------------------------------------------------------------

Rate: Under Executive Order (EO) 13658 an hourly minimum

Rate of \$10.80 for calendar year 2020 applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation is 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 \$10.80 per hour (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 2020. 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.

State: Kentucky

Area: Kentucky Counties of Ballard Calloway Carlisle Fulton Graves
Clarkman Marshall McCracken

****Fringe Benefits Required Follow the Occupational Listing****

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
0000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		13.78
01012 - Accounting Clerk II		15.47
01013 - Accounting Clerk III		17.31
01020 - Administrative Assistant		21.69
01035 - Court Reporter		17.00
01041 - Customer Service Representative I		11.49
01042 - Customer Service Representative II		12.92
01043 - Customer Service Representative III		14.10
01051 - Data Entry Operator I		14.19
01052 - Data Entry Operator II		15.48
01060 - Dispatcher Motor Vehicle		17.85
01070 - Document Preparation Clerk		14.01
01090 - Duplicating Machine Operator		14.01
01111 - General Clerk I		12.56
01112 - General Clerk II		13.71
01113 - General Clerk III		15.47
01120 - Housing Referral Assistant		20.25
01141 - Messenger Courier		11.61
01191 - Order Clerk I		12.37
01192 - Order Clerk II		13.50
01261 - Personnel Assistant (Employment) I		15.20
01262 - Personnel Assistant (Employment) II		17.00
01263 - Personnel Assistant (Employment) III		19.71
01270 - Production Control Clerk		21.00
01290 - Rental Clerk		15.13
01300 - Scheduler Maintenance		15.74
01311 - Secretary I		15.74
01312 - Secretary II		17.61
01313 - Secretary III		19.63
01320 - Service Order Dispatcher		15.96
01410 - Supply Technician		21.69
01420 - Survey Worker		17.19
01460 - Switchboard Operator/Receptionist		13.23

01531 - Travel Clerk I	12.72
01532 - Travel Clerk II	13.54
01533 - Travel Clerk III	14.58
01611 - Word Processor I	12.48
01612 - Word Processor II	15.20
01613 - Word Processor III	17.17
000 - Automotive Service Occupations	
05005 - Automobile Body Repairer Fiberglass	21.84
05010 - Automotive Electrician	19.23
05040 - Automotive Glass Installer	17.17
05070 - Automotive Worker	17.21
05110 - Mobile Equipment Servicer	15.07
05130 - Motor Equipment Metal Mechanic	19.23
05160 - Motor Equipment Metal Worker	17.21
05190 - Motor Vehicle Mechanic	19.23
05220 - Motor Vehicle Mechanic Helper	13.97
05250 - Motor Vehicle Upholstery Worker	17.21
05280 - Motor Vehicle Wrecker	17.21
05310 - Painter Automotive	18.23
05340 - Radiator Repair Specialist	17.21
05370 - Tire Repairer	11.65
05400 - Transmission Repair Specialist	18.98
000 - Food Preparation And Service Occupations	
07010 - Baker	11.90
07041 - Cook I	11.47
07042 - Cook II	13.00
07070 - Dishwasher	9.02
07130 - Food Service Worker	8.88
07210 - Meat Cutter	15.02
07260 - Waiter/Waitress	8.67
000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	17.83
09040 - Furniture Handler	11.39
09080 - Furniture Refinisher	17.83
09090 - Furniture Refinisher Helper	13.31
09110 - Furniture Repairer Minor	15.27
09130 - Upholsterer	17.97
000 - General Services And Support Occupations	
11030 - Cleaner Vehicles	10.78
11060 - Elevator Operator	11.13
11090 - Gardener	15.59
11122 - Housekeeping Aide	11.16
11150 - Janitor	11.16
11210 - Laborer Grounds Maintenance	12.50
11240 - Maid or Houseman	10.23
11260 - Pruner	11.12
11270 - Tractor Operator	14.85
11330 - Trail Maintenance Worker	12.50
11360 - Window Cleaner	12.17
000 - Health Occupations	
12010 - Ambulance Driver	17.06
12011 - Breath Alcohol Technician	16.91
12012 - Certified Occupational Therapist Assistant	24.04
12015 - Certified Physical Therapist Assistant	24.92
12020 - Dental Assistant	14.77
12025 - Dental Hygienist	28.57
12030 - EKG Technician	19.34
12035 - Electroneurodiagnostic Technologist	19.34
12040 - Emergency Medical Technician	17.06
12071 - Licensed Practical Nurse I	15.11
12072 - Licensed Practical Nurse II	16.91
12073 - Licensed Practical Nurse III	18.84
12100 - Medical Assistant	13.65
12130 - Medical Laboratory Technician	23.51
12160 - Medical Record Clerk	15.33
12190 - Medical Record Technician	17.15
12195 - Medical Transcriptionist	17.09
12210 - Nuclear Medicine Technologist	37.14
12221 - Nursing Assistant I	11.34
12222 - Nursing Assistant II	12.76
12223 - Nursing Assistant III	13.92
12224 - Nursing Assistant IV	15.62

12235 - Optical Dispenser	17.59
12236 - Optical Technician	15.11
12250 - Pharmacy Technician	14.10
12280 - Phlebotomist	14.14
12305 - Radiologic Technologist	24.12
12311 - Registered Nurse I	25.41
12312 - Registered Nurse II	30.43
12313 - Registered Nurse II Specialist	30.43
12314 - Registered Nurse III	36.80
12315 - Registered Nurse III Anesthetist	36.80
12316 - Registered Nurse IV	44.11
12317 - Scheduler (Drug and Alcohol Testing)	20.94
12320 - Substance Abuse Treatment Counselor	17.73
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	19.51
13012 - Exhibits Specialist II	24.17
13013 - Exhibits Specialist III	29.56
13041 - Illustrator I	19.51
13042 - Illustrator II	24.17
13043 - Illustrator III	29.56
13047 - Librarian	26.77
13050 - Library Aide/Clerk	11.87
13054 - Library Information Technology Systems Administrator	24.17
13058 - Library Technician	13.07
13061 - Media Specialist I	17.44
13062 - Media Specialist II	19.51
13063 - Media Specialist III	21.74
13071 - Photographer I	17.44
13072 - Photographer II	19.51
13073 - Photographer III	24.17
13074 - Photographer IV	29.56
13075 - Photographer V	35.77
13090 - Technical Order Library Clerk	15.49
13110 - Video Teleconference Technician	18.06
14000 - Information Technology Occupations	
14041 - Computer Operator I	16.64
14042 - Computer Operator II	18.67
14043 - Computer Operator III	20.82
14044 - Computer Operator IV	23.14
14045 - Computer Operator V	25.61
14071 - Computer Programmer I	(see 1) 23.37
14072 - Computer Programmer II	(see 1)
14073 - Computer Programmer III	(see 1)
14074 - Computer Programmer IV	(see 1)
14101 - Computer Systems Analyst I	(see 1)
14102 - Computer Systems Analyst II	(see 1)
14103 - Computer Systems Analyst III	(see 1)
14150 - Peripheral Equipment Operator	16.64
14160 - Personal Computer Support Technician	23.14
14170 - System Support Specialist	28.73
15000 - Instructional Occupations	
15010 - Aircrew Training Devices Instructor (Non-Rated)	28.99
15020 - Aircrew Training Devices Instructor (Rated)	36.76
15030 - Air Crew Training Devices Instructor (Pilot)	42.05
15050 - Computer Based Training Specialist / Instructor	28.99
15060 - Educational Technologist	27.85
15070 - Flight Instructor (Pilot)	42.05
15080 - Graphic Artist	23.07
15085 - Maintenance Test Pilot Fixed Jet/Prop	42.05
15086 - Maintenance Test Pilot Rotary Wing	42.05
15088 - Non-Maintenance Test/Co-Pilot	42.05
15090 - Technical Instructor	24.01
15095 - Technical Instructor/Course Developer	29.37
15110 - Test Proctor	19.38
15120 - Tutor	19.38
16000 - Laundry Dry-Cleaning Pressing And Related Occupations	
16010 - Assembler	9.23
16030 - Counter Attendant	9.23
16040 - Dry Cleaner	11.68
16070 - Finisher Flatwork Machine	9.23
16090 - Presser Hand	9.23

16110 - Presser Machine Drycleaning	9.23
16130 - Presser Machine Shirts	9.23
16160 - Presser Machine Wearing Apparel Laundry	9.23
16190 - Sewing Machine Operator	12.50
16220 - Tailor	13.31
16250 - Washer Machine	10.02
19000 - Machine Tool Operation And Repair Occupations	
19010 - Machine-Tool Operator (Tool Room)	19.65
19040 - Tool And Die Maker	23.44
21000 - Materials Handling And Packing Occupations	
21020 - Forklift Operator	18.28
21030 - Material Coordinator	21.00
21040 - Material Expediter	21.00
21050 - Material Handling Laborer	13.47
21071 - Order Filler	11.14
21080 - Production Line Worker (Food Processing)	18.28
21110 - Shipping Packer	16.35
21130 - Shipping/Receiving Clerk	16.35
21140 - Store Worker I	13.83
21150 - Stock Clerk	18.18
21210 - Tools And Parts Attendant	18.28
21410 - Warehouse Specialist	18.28
23000 - Mechanics And Maintenance And Repair Occupations	
23010 - Aerospace Structural Welder	24.50
23019 - Aircraft Logs and Records Technician	19.77
23021 - Aircraft Mechanic I	23.37
23022 - Aircraft Mechanic II	24.50
23023 - Aircraft Mechanic III	25.65
23040 - Aircraft Mechanic Helper	17.17
23050 - Aircraft Painter	22.87
23060 - Aircraft Servicer	19.77
23070 - Aircraft Survival Flight Equipment Technician	22.87
23080 - Aircraft Worker	21.05
23091 - Aircrew Life Support Equipment (ALSE) Mechanic I	21.05
23092 - Aircrew Life Support Equipment (ALSE) Mechanic II	23.37
23110 - Appliance Mechanic	22.18
23120 - Bicycle Repairer	16.68
23125 - Cable Splicer	31.39
23130 - Carpenter Maintenance	20.20
23140 - Carpet Layer	21.04
23160 - Electrician Maintenance	28.46
23181 - Electronics Technician Maintenance I	25.62
23182 - Electronics Technician Maintenance II	27.42
23183 - Electronics Technician Maintenance III	29.12
23260 - Fabric Worker	19.81
23290 - Fire Alarm System Mechanic	20.41
23310 - Fire Extinguisher Repairer	18.58
23311 - Fuel Distribution System Mechanic	26.16
23312 - Fuel Distribution System Operator	22.57
23370 - General Maintenance Worker	16.93
23380 - Ground Support Equipment Mechanic	23.37
23381 - Ground Support Equipment Servicer	19.77
23382 - Ground Support Equipment Worker	21.05
23391 - Gunsmith I	18.58
23392 - Gunsmith II	21.04
23393 - Gunsmith III	23.29
23410 - Heating Ventilation And Air-Conditioning Mechanic	20.18
23411 - Heating Ventilation And Air Contidioning Mechanic (Research Facility)	23.55
23430 - Heavy Equipment Mechanic	24.96
23440 - Heavy Equipment Operator	21.77
23460 - Instrument Mechanic	27.79
23465 - Laboratory/Shelter Mechanic	22.18
23470 - Laborer	12.80
23510 - Locksmith	22.18
23530 - Machinery Maintenance Mechanic	25.08
23550 - Machinist Maintenance	22.83
23580 - Maintenance Trades Helper	15.96
23591 - Metrology Technician I	27.79

23592 - Metrology Technician II	29.08
23593 - Metrology Technician III	30.42
23640 - Millwright	25.99
23710 - Office Appliance Repairer	22.52
23760 - Painter Maintenance	17.49
23790 - Pipefitter Maintenance	25.85
23810 - Plumber Maintenance	24.63
23820 - Pneudraulic Systems Mechanic	23.29
23850 - Rigger	23.29
23870 - Scale Mechanic	21.04
23890 - Sheet-Metal Worker Maintenance	18.72
23910 - Small Engine Mechanic	17.13
23931 - Telecommunications Mechanic I	23.97
23932 - Telecommunications Mechanic II	25.40
23950 - Telephone Lineman	26.11
23960 - Welder Combination Maintenance	18.74
23965 - Well Driller	23.37
23970 - Woodcraft Worker	23.29
23980 - Woodworker	18.58
000 - Personal Needs Occupations	
24550 - Case Manager	12.32
24570 - Child Care Attendant	11.22
24580 - Child Care Center Clerk	14.11
24610 - Chore Aide	10.84
24620 - Family Readiness And Support Services Coordinator	12.32
24630 - Homemaker	16.62
000 - Plant And System Operations Occupations	
25010 - Boiler Tender	23.37
25040 - Sewage Plant Operator	19.58
25070 - Stationary Engineer	23.37
25190 - Ventilation Equipment Tender	17.42
25210 - Water Treatment Plant Operator	19.58
000 - Protective Service Occupations	
27004 - Alarm Monitor	14.76
27007 - Baggage Inspector	12.07
27008 - Corrections Officer	19.23
27010 - Court Security Officer	18.53
27030 - Detection Dog Handler	13.51
27040 - Detention Officer	19.23
27070 - Firefighter	17.14
27101 - Guard I	12.07
27102 - Guard II	13.51
27131 - Police Officer I	21.51
27132 - Police Officer II	23.90
000 - Recreation Occupations	
28041 - Carnival Equipment Operator	11.50
28042 - Carnival Equipment Repairer	12.31
28043 - Carnival Worker	8.99
28210 - Gate Attendant/Gate Tender	14.66
28310 - Lifeguard	12.26
28350 - Park Attendant (Aide)	16.41
28510 - Recreation Aide/Health Facility Attendant	11.97
28515 - Recreation Specialist	18.59
28630 - Sports Official	13.06
28690 - Swimming Pool Operator	13.96
000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	21.68
29020 - Hatch Tender	21.68
29030 - Line Handler	21.68
29041 - Stevedore I	21.20
29042 - Stevedore II	23.95
000 - Technical Occupations	
30010 - Air Traffic Control Specialist Center (HFO) (see 2)	38.78
30011 - Air Traffic Control Specialist Station (HFO) (see 2)	26.74
30012 - Air Traffic Control Specialist Terminal (HFO) (see 2)	29.45
30021 - Archeological Technician I	16.54
30022 - Archeological Technician II	18.50
30023 - Archeological Technician III	22.93
30030 - Cartographic Technician	22.93
30040 - Civil Engineering Technician	23.25
30051 - Cryogenic Technician I	24.38

30052 - Cryogenic Technician II	26.92
30061 - Drafter/CAD Operator I	16.54
30062 - Drafter/CAD Operator II	18.50
30063 - Drafter/CAD Operator III	20.64
30064 - Drafter/CAD Operator IV	25.39
30081 - Engineering Technician I	17.14
30082 - Engineering Technician II	18.54
30083 - Engineering Technician III	21.52
30084 - Engineering Technician IV	25.66
30085 - Engineering Technician V	30.95
30086 - Engineering Technician VI	37.45
30090 - Environmental Technician	22.10
30095 - Evidence Control Specialist	22.01
30210 - Laboratory Technician	23.27
30221 - Latent Fingerprint Technician I	24.38
30222 - Latent Fingerprint Technician II	26.92
30240 - Mathematical Technician	22.93
30361 - Paralegal/Legal Assistant I	19.05
30362 - Paralegal/Legal Assistant II	23.59
30363 - Paralegal/Legal Assistant III	28.85
30364 - Paralegal/Legal Assistant IV	34.91
30375 - Petroleum Supply Specialist	26.92
30390 - Photo-Optics Technician	22.93
30395 - Radiation Control Technician	26.92
30461 - Technical Writer I	22.46
30462 - Technical Writer II	27.48
30463 - Technical Writer III	33.24
30491 - Unexploded Ordnance (UXO) Technician I	24.65
30492 - Unexploded Ordnance (UXO) Technician II	29.82
30493 - Unexploded Ordnance (UXO) Technician III	35.74
30494 - Unexploded (UXO) Safety Escort	24.65
30495 - Unexploded (UXO) Sweep Personnel	24.65
30501 - Weather Forecaster I	25.39
30502 - Weather Forecaster II	30.89
30620 - Weather Observer Combined Upper Air Or Surface Programs	(see 2) 20.64
30621 - Weather Observer Senior	(see 2) 23.38
000 - Transportation/Mobile Equipment Operation Occupations	
31010 - Airplane Pilot	29.82
31020 - Bus Aide	12.84
31030 - Bus Driver	18.40
31043 - Driver Courier	13.20
31260 - Parking and Lot Attendant	12.46
31290 - Shuttle Bus Driver	13.89
31310 - Taxi Driver	11.04
31361 - Truckdriver Light	13.89
31362 - Truckdriver Medium	15.04
31363 - Truckdriver Heavy	20.14
31364 - Truckdriver Tractor-Trailer	20.14
000 - Miscellaneous Occupations	
99020 - Cabin Safety Specialist	14.54
99030 - Cashier	9.09
99050 - Desk Clerk	10.48
99095 - Embalmer	24.26
99130 - Flight Follower	24.65
99251 - Laboratory Animal Caretaker I	11.95
99252 - Laboratory Animal Caretaker II	13.40
99260 - Marketing Analyst	24.07
99310 - Mortician	24.26
99410 - Pest Controller	17.00
99510 - Photofinishing Worker	12.95
99710 - Recycling Laborer	15.49
99711 - Recycling Specialist	17.56
99730 - Refuse Collector	13.79
99810 - Sales Clerk	11.81
99820 - School Crossing Guard	15.30
99830 - Survey Party Chief	21.44
99831 - Surveying Aide	14.05
99832 - Surveying Technician	19.24
99840 - Vending Machine Attendant	18.55
99841 - Vending Machine Repairer	23.08
99842 - Vending Machine Repairer Helper	18.36

ate: Executive Order (EO) 13706 Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness injury or other health-related needs including preventive care; to assist a family member (or person who is like family to the employee) who is ill injured or has other health-related needs including preventive care; or for reasons resulting from or to assist a family member (or person who is like family to the employee) who is the victim of domestic violence sexual assault or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: Life accident and health insurance plans sick leave pension plans civic and personal leave severance pay and savings and thrift plans. Minimum employer contributions costing an average of \$4.54 per hour computed on the basis of all hours worked by service employees employed on the contract.

HEALTH & WELFARE EO 13706: Minimum employer contributions costing an average of \$4.54 per hour computed on the basis of all hours worked by service employees employed on the covered contracts. *

This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706 Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or predecessor 3 weeks after 8 years and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or predecessor wherever employed and with the predecessor contractors in the performance of similar work at the same Federal facility. (See 29 CFR 4.173)

HOLIDAYS: A minimum of eleven paid holidays per year: New Year's Day Martin Luther King Jr's Birthday Washington's Birthday Good Friday Memorial Day Independence Day Labor Day Columbus Day Veterans' Day Thanksgiving Day and Christmas Day. A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

ALL OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

COMPUTER EMPLOYEES: Under the SCA at section 8(b) this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than \$27.63 (or on a salary or fee basis at a rate not less than \$455 per week) an hour would likely qualify as exempt computer professionals (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition because this wage determination may not set a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds \$27.63 per hour conformances may be necessary for certain nonexempt employees. For example if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

In addition because job titles vary widely and change quickly in the computer industry job titles are not determinative of the application of the computer professional exemption. Therefore the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

- (1) The application of systems analysis techniques and procedures including consulting with users to determine hardware software or system functional specifications;
- (2) The design development documentation analysis creation testing or modification of computer systems or programs including prototypes based on and related to user or system design specifications;
- (3) The design documentation testing creation or modification of computer programs related to machine operating systems; or
- (4) A combination of the aforementioned duties the performance of which requires the same level of skills. (29 C.F.R. 541.400).

AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employee (40 hours a week) and Sunday is part of your regularly scheduled workweek you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL **

A 8 percent differential is applicable to employees employed in a position that presents a high degree of hazard when working with or in close proximity to ordnance explosives and incendiary materials. This includes work such as screening blending dying mixing and pressing of sensitive ordnance explosives and pyrotechnic compositions such as lead azide black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization modification renovation demolition and maintenance operations on sensitive ordnance explosives and incendiary materials. All operations involving re-grading and cleaning of artillery ranges.

4 percent differential is applicable to employees employed in a position that presents a low degree of hazard when working with or in close proximity to ordnance (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands face or arms of the employee engaged in the operation irritation of the skin minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving unloading storage and hauling of ordnance explosive and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance explosives and incendiary material differential pay.

UNIFORM ALLOWANCE **

employees are required to wear uniforms in the performance of this contract either by the terms of the Government contract by the employer by the state or local law etc.) the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition where uniform cleaning and maintenance is made the responsibility of the employee all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount or the furnishing of contrary affirmative proof as to the actual cost) reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However in those instances where the uniforms furnished are made of "wash and wear" materials may be routinely washed and dried with other personal garments and do not require any special treatment such as dry cleaning daily washing or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract by the contractor by law or by the nature of the work there is no requirement that employees be reimbursed for uniform maintenance costs.

SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations" Fifth Edition (Revision 1) dated September 2015 unless otherwise indicated.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE Standard Form 1444 (SF-1444) **

Informance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e. the work to be performed is not performed by any classification listed in the wage determination) be classified by the contractor so as to provide a reasonable relationship (i.e. appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination (See 29 CFR 6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees

See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification wage rate and/or fringe benefits which shall be paid to all employees performing in the classification from the first day of work on which contract work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or fully determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract. (See 29 CFR 4.6(b)(2)(v)). When multiple wage determinations are included in a contract a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

When preparing the bid the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

After contract award the contractor prepares a written report listing in order the proposed classification title(s) a Federal grade equivalency (FGE) for each proposed classification(s) job description(s) and rationale for proposed wage rate(s) including information regarding the agreement or disagreement of the authorized representative of the employees involved or where there is no authorized representative the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

The contracting officer reviews the proposed action and promptly submits a report of the action together with the agency's recommendations and pertinent information including the position of the contractor and the employees to the U.S. Department of Labor Wage and Hour Division for review (See 29 CFR 4.6(b)(2)(ii)).

Within 30 days of receipt the Wage and Hour Division approves modifies or disapproves the action via transmittal to the agency contracting officer or notifies the contracting officer that additional time will be required to process the request.

The contracting officer transmits the Wage and Hour Division's decision to the contractor.

Each affected employee shall be furnished by the contractor with a written copy of such determination or it shall be posted as a part of the wage determination (See 29 CFR 4.6(b)(2)(iii)).

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request the "Service Contract Act Directory of Occupations" should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember it is not the job title but the required tasks that determine whether a class is included in an established wage determination. Informances may not be used to artificially split combine or subdivide classifications listed in the wage determination (See 29 CFR 4.152(c)(1))."

perseded General Decision Number: KY20190030

ate: Kentucky

nstruction Type: Building

ounty: McCracken County in Kentucky.

UILDING CONSTRUCTION PROJECTS (does not include single family
mes or apartments up to and including 4 stories).

te: Under Executive Order (EO) 13658, an hourly minimum wage
\$10.80 for calendar year 2020 applies to all contracts
subject to the Davis-Bacon Act for which the contract is
awarded (and any solicitation was issued) on or after January
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 \$10.80 per hour (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
2020. If this contract is covered by the EO and a
classification considered necessary for performance of work on
the contract does not appear on this wage determination, the
contractor must pay workers in that classification at least the
wage rate determined through the conformance process set forth
in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is
higher than the conformed wage rate). The EO minimum wage rate
will be adjusted annually. Please note that this EO applies to
the above-mentioned types of contracts entered into by the
federal government that are subject to the Davis-Bacon Act
itself, but it does not apply to contracts subject only to the
Davis-Bacon Related Acts, including those set forth at 29 CFR
1(a)(2)-(60). Additional information on contractor
requirements and worker protections under the EO is available
at: www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/10/2020

SBEO051-001 03/01/2019

	Rates	Fringes
BESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 25.81	15.96

IOIL0040-001 03/01/2018

	Rates	Fringes
ILERMAKER.....	\$ 35.10	27.56

IRKY0004-001 06/01/2018

	Rates	Fringes
ICKLAYER.....	\$ 31.00	15.35

ARP0224-001 06/01/2018

	Rates	Fringes
RPENTER (Acoustical Ceiling Installation Only).....	\$ 25.50	18.26

ARP0357-006 06/01/2017

Rates	Fringes
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IRPENTER (Drywall Hanging and Metal Stud Installation only).....	\$ 22.00	18.00
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ARP1076-002 07/01/2018

	Rates	Fringes
ILLWRIGHT.....	\$ 27.20	19.97

ELEC0816-005 01/01/2020

	Rates	Fringes
ELECTRICIAN.....	\$ 33.58	25.5%+7.25

NGI0181-084 06/01/2018

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Filer).....	\$ 27.70	15.75

NGI0181-087 07/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Crane).....	\$ 33.54	16.50

CRANES WITH BOOM 150 FEET & OVER, INCLUDING JIB, SHALL
RECEIVE \$1.00 ABOVE THE WAGE RATE; 250 FEET AND OVER,
INCLUDING JIB, SHALL RECEIVE \$1.50 ABOVE THE WAGE RATE.
ALL CRANES WITH PILING LEADS WILL RECEIVE \$1.00 ABOVE THE
WAGE, REGARDLESS OF BOOM LENGTH.

NGI0181-088 07/01/2018

	Rates	Fringes
POWER EQUIPMENT OPERATOR (forklift).....	\$ 32.88	15.75

RON0782-015 05/01/2018

	Rates	Fringes
CONWORKER, REINFORCING.....	\$ 27.20	22.75

ABO0189-007 06/01/2018

	Rates	Fringes
LABORER (Pipelayer).....	\$ 23.36	12.47

ABO1214-008 07/01/2018

	Rates	Fringes
LABORER (Backfiller, Carpenter Tender, Form - stripping).....	\$ 21.69	13.33

ABO1214-009 07/01/2018

	Rates	Fringes
LABORER (Grouting, Jack hammer, Mason Tender - tamp/Concrete, Tamper -		

ind Held, Vibrating Plate).....\$ 21.93 13.33

AB01392-010 07/01/2018

Rates Fringes

LBORER (Concrete Saw - Hand
ld/Walk Behind).....\$ 23.10 13.02

AIN1072-005 12/01/2018

Rates Fringes

INTER (Spray Only).....\$ 27.76 18.50

AIN1165-023 07/01/2019

Rates Fringes

AZIER.....\$ 29.13 16.07

LUM0184-003 07/01/2019

Rates Fringes

UMBER/PIPEFITTER.....\$ 35.86 18.38

FKY0669-002 04/01/2018

Rates Fringes

RINKLER FITTER.....\$ 35.05 19.74

HEE0110-005 06/01/2017

Rates Fringes

HEET METAL WORKER (Includes
AC Duct Installation).....\$ 29.17 22.00

UAVG-KY-0009 01/01/2019

Rates Fringes

EVATOR MECHANIC.....\$ 46.26 33.70

UAVG-KY-0010 01/01/2019

Rates Fringes

ONWORKER, ORNAMENTAL.....\$ 29.46 23.50

UAVG-KY-0011 01/01/2019

Rates Fringes

LBORER: Grade Checker.....\$ 22.05 13.28

UAVG-KY-0012 01/01/2019

Rates Fringes

LBORER: Power Tool Operator....\$ 23.44 13.07

UAVG-KY-0013 01/01/2019

Rates Fringes

ERATOR: Bulldozer.....\$ 32.38 15.75

SUKY2015-013 06/02/2015

	Rates	Fringes
WRENTER (Form Work Only).....	\$ 24.46	9.07
WRENTER, Excludes Acoustical Ceiling Installation, Drywall Scaffolding, Form Work, and Metal Stud Installation.....	\$ 20.97	12.01
WRENT MASON/CONCRETE FINISHER...	\$ 23.49	9.01
WORKER, STRUCTURAL.....	\$ 28.70	12.14
WORKER: Common or General.....	\$ 21.05	8.09
WORKER: Mason Tender - Brick...	\$ 18.73	10.60
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 27.30	10.73
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 24.64	13.00
OPERATOR: Grader/Blade.....	\$ 24.33	13.00
WINTER (Brush and Roller).....	\$ 20.19	11.33
WORKER.....	\$ 22.31	7.41
WALL FINISHER.....	\$ 17.67	7.45
WALL SETTER.....	\$ 25.77	6.10
TRUCK DRIVER: Dump Truck.....	\$ 17.07	6.25

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

NOTE: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at www.dol.gov/whd/govcontracts.

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
listed type(s) of construction in the area covered by the wage

termination. 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), 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: .UM0198-005 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, 05 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.

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 used.

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

1 survey related matters, initial contact, including requests
or 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"

Superseded General Decision Number: KY20190053

State: Kentucky

Instruction Type: Heavy

County: McCracken County in Kentucky.

Heavy Construction Projects (including sewer/water construction).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded and any 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 \$10.80 per hour (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 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Classification Number	Publication Date
0	01/03/2020

ENGI0181-009 07/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 33.30	16.50
GROUP 2.....	\$ 30.44	16.50
GROUP 3.....	\$ 30.89	16.50
GROUP 4.....	\$ 30.12	16.50

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Backhoe/Excavator/Trackhoe; Bulldozer; Crane; Drill; Grader/Blade; Loader; Mechanic; Scraper

GROUP 2 - Bobcat/Skid Steer/Skid Loader; Forklift; Tractor (50 H.P. or over)

GROUP 3 - Articulating Truck Operator

GROUP 4 - Oiler; Tractor (under 50 H.P.)

Operators on cranes with booms 150 feet and over (including jib) shall receive \$1.00 above Group 1 rate; 250 feet and over including jib shall receive \$1.50 above Class 1 rate. Combination Rate: All crane operators operating cranes, where the length of the boom in combination with the length of the piling leads equal or exceeds 150 feet, shall

receive \$1.00 above the Group 1 rate.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

RON0782-010 05/01/2018

	Rates	Fringes
IRONWORKER (Reinforcing & Structural)		
Projects over \$20,000,000.00.....	\$ 28.79	24.17
Projects under \$20,000,000.00.....	\$ 27.20	22.75

ABO0189-001 07/01/2018

	Rates	Fringes
LABORER		
Concrete Saw (Hand Held/Walk Behind).....	\$ 23.32	14.21

ABO0561-003 07/01/2018

	Rates	Fringes
LABORER		
Form Worker.....	\$ 22.71	15.00

ABO1214-001 07/01/2018

	Rates	Fringes
LABORER		
Backfiller, Carpenter		
Tender, Common or General,		
Concrete Worker, Dumpman,		
Fence Erection.....	\$ 23.07	14.21
Pipelayer & Tamper (Hand Held/Walk Behind).....	\$ 23.32	14.21

UAVG-KY-0001 01/01/2019

	Rates	Fringes
LABORER: Grade Checker.....	\$ 23.78	13.63

SUKY2011-009 06/25/2014

	Rates	Fringes
MENT MASON/CONCRETE FINISHER...	\$ 20.96	10.53
ELECTRICIAN.....	\$ 32.35	2.18
LABORER: Flagger.....	\$ 18.31	8.89
OPERATOR: Boring Machine.....	\$ 25.35	13.00

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

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note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any

licitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours of work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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 stated 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), survey rate (weighted average rate) or a union average rate (weighted union average rate).

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Washington, DC 20210

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Wage and Hour Administrator
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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.

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Administrative Review Board
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

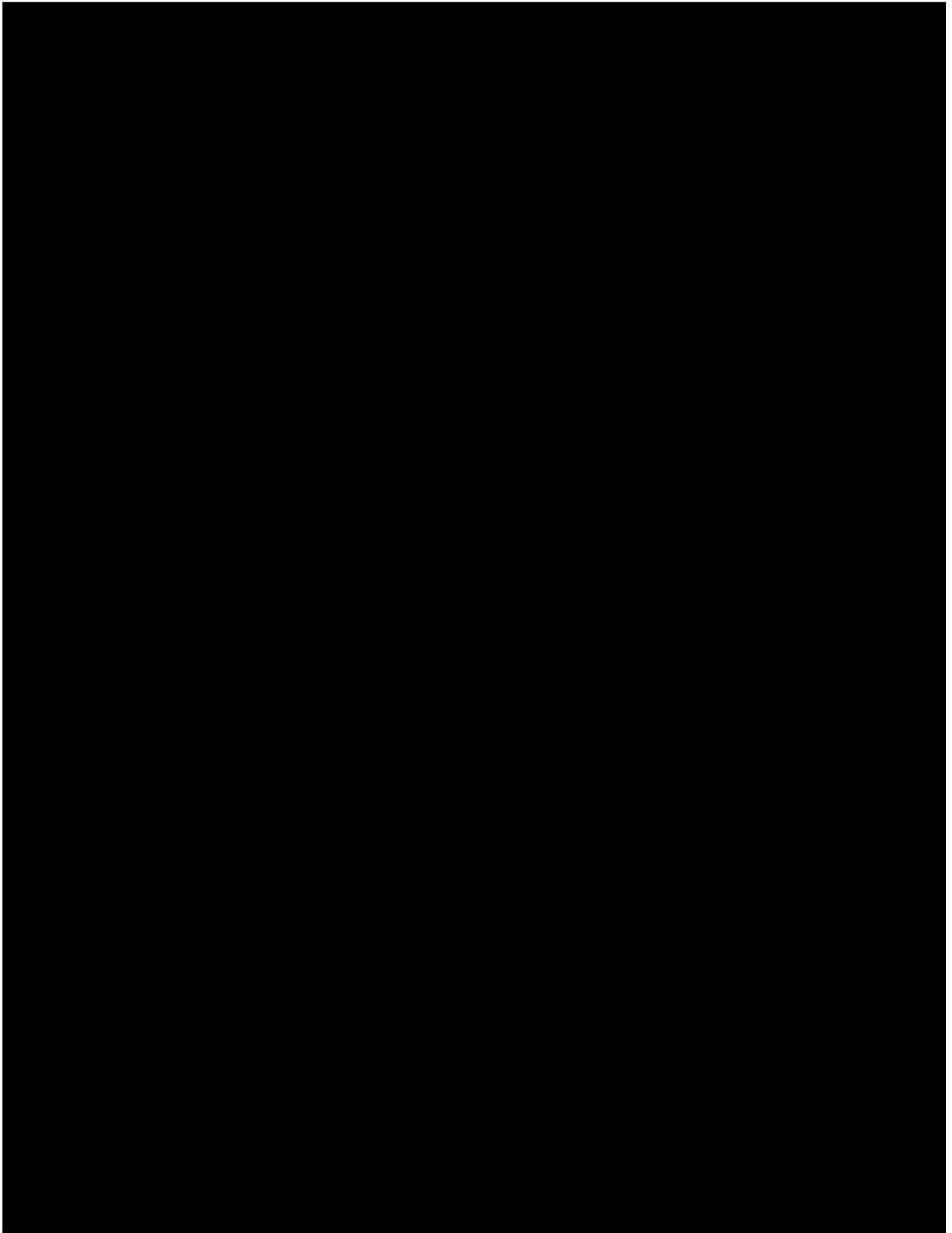
SECTION J - ATTACHMENT J-11
COMMUNITY COMMITMENT PLAN

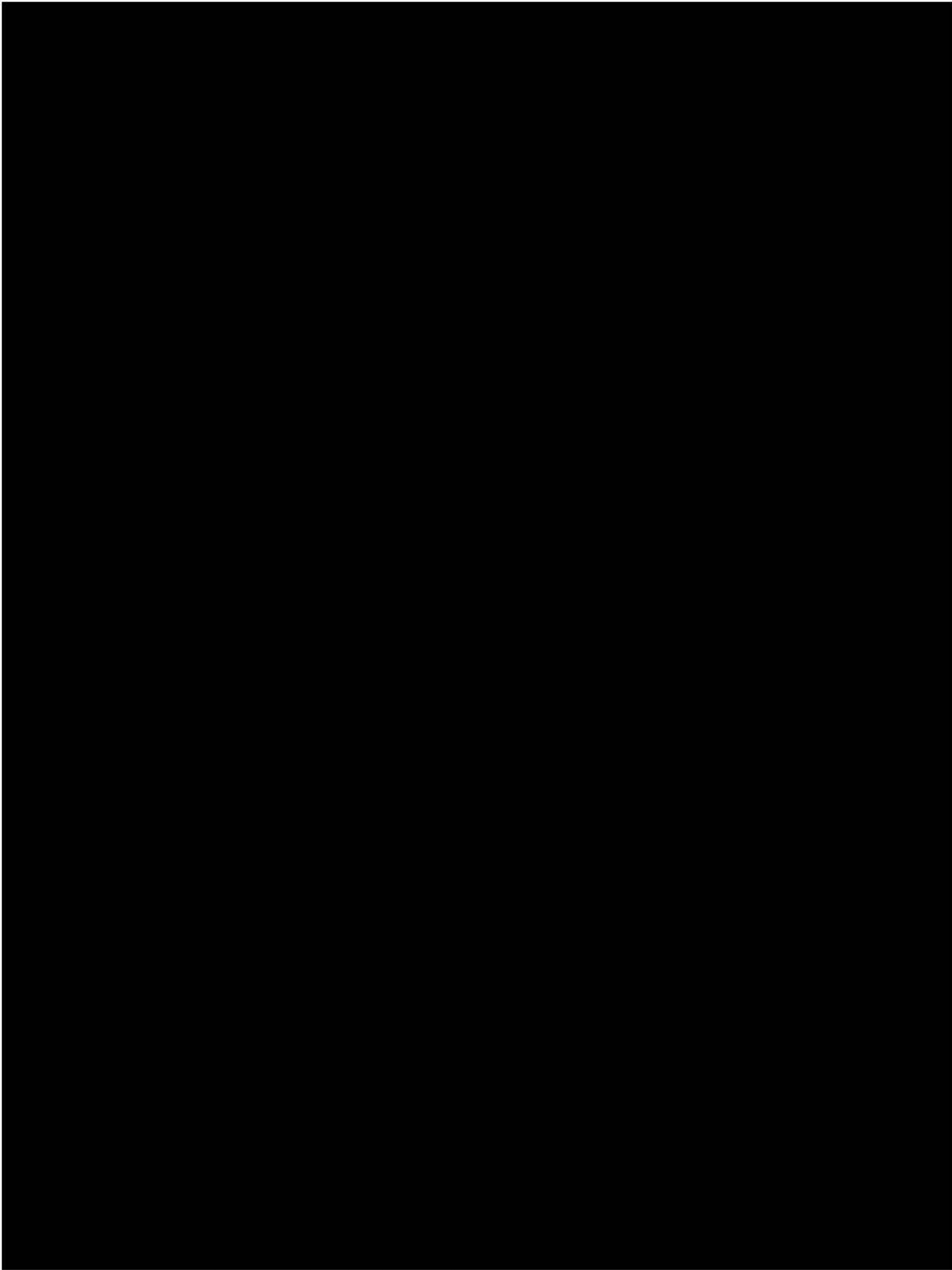


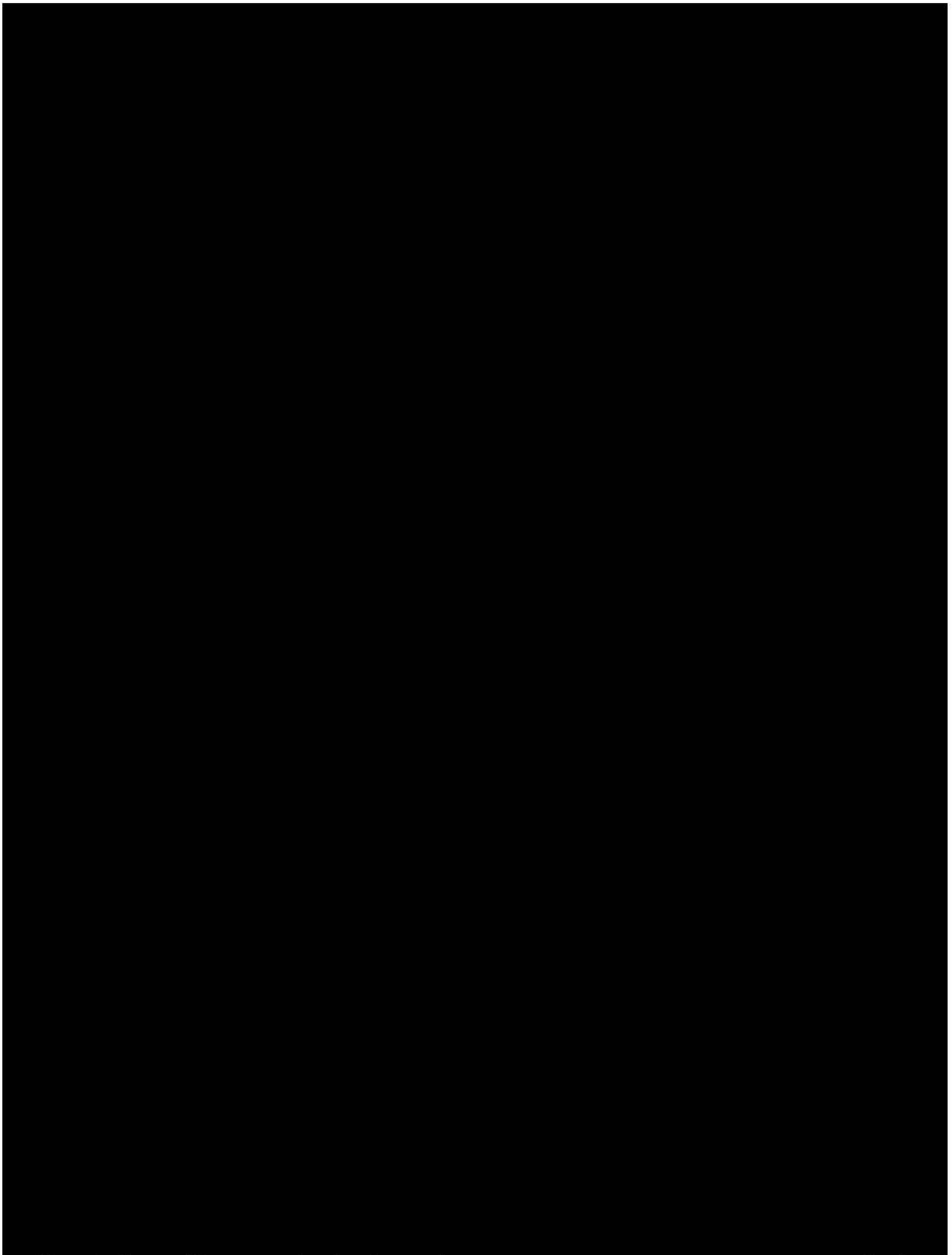
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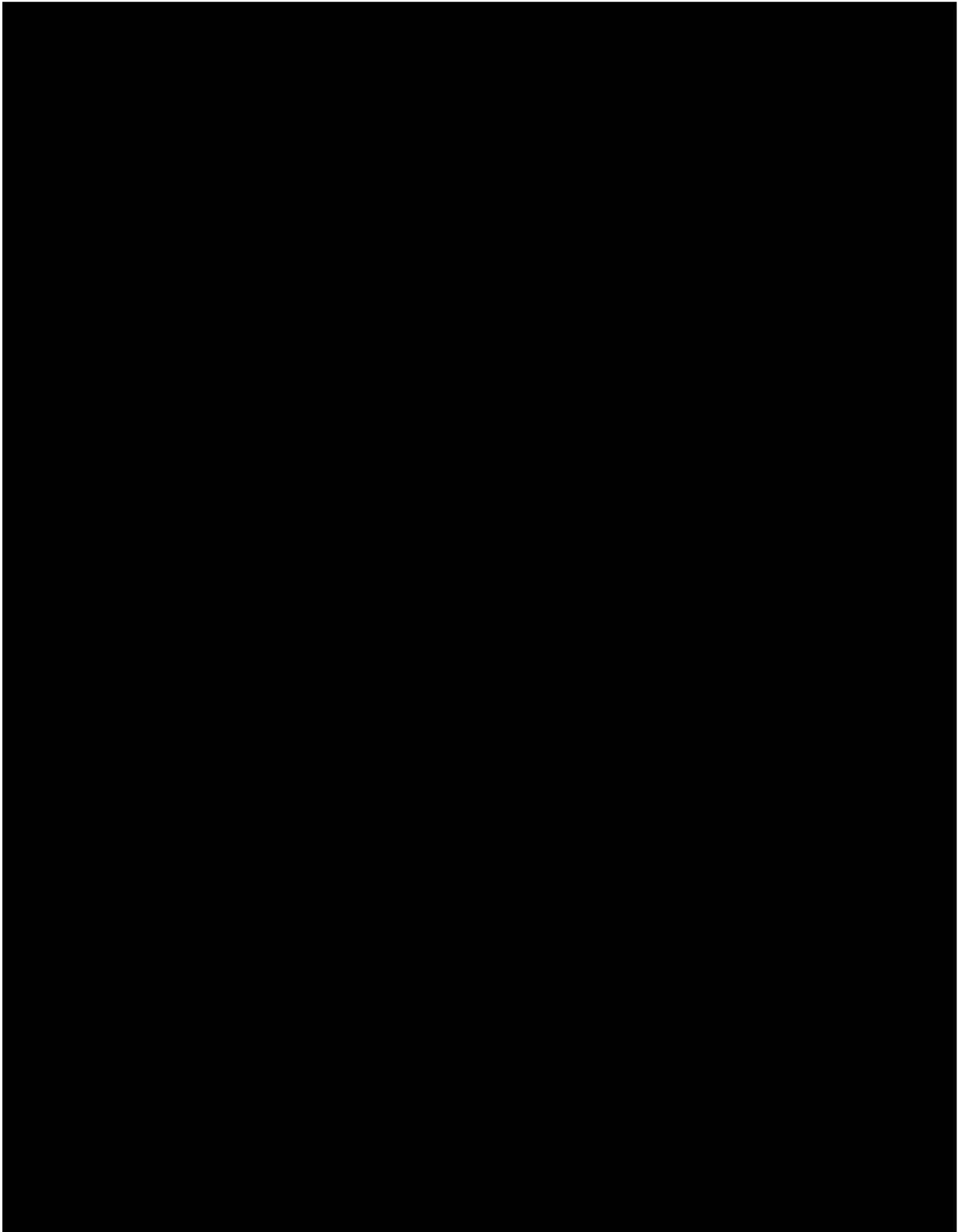


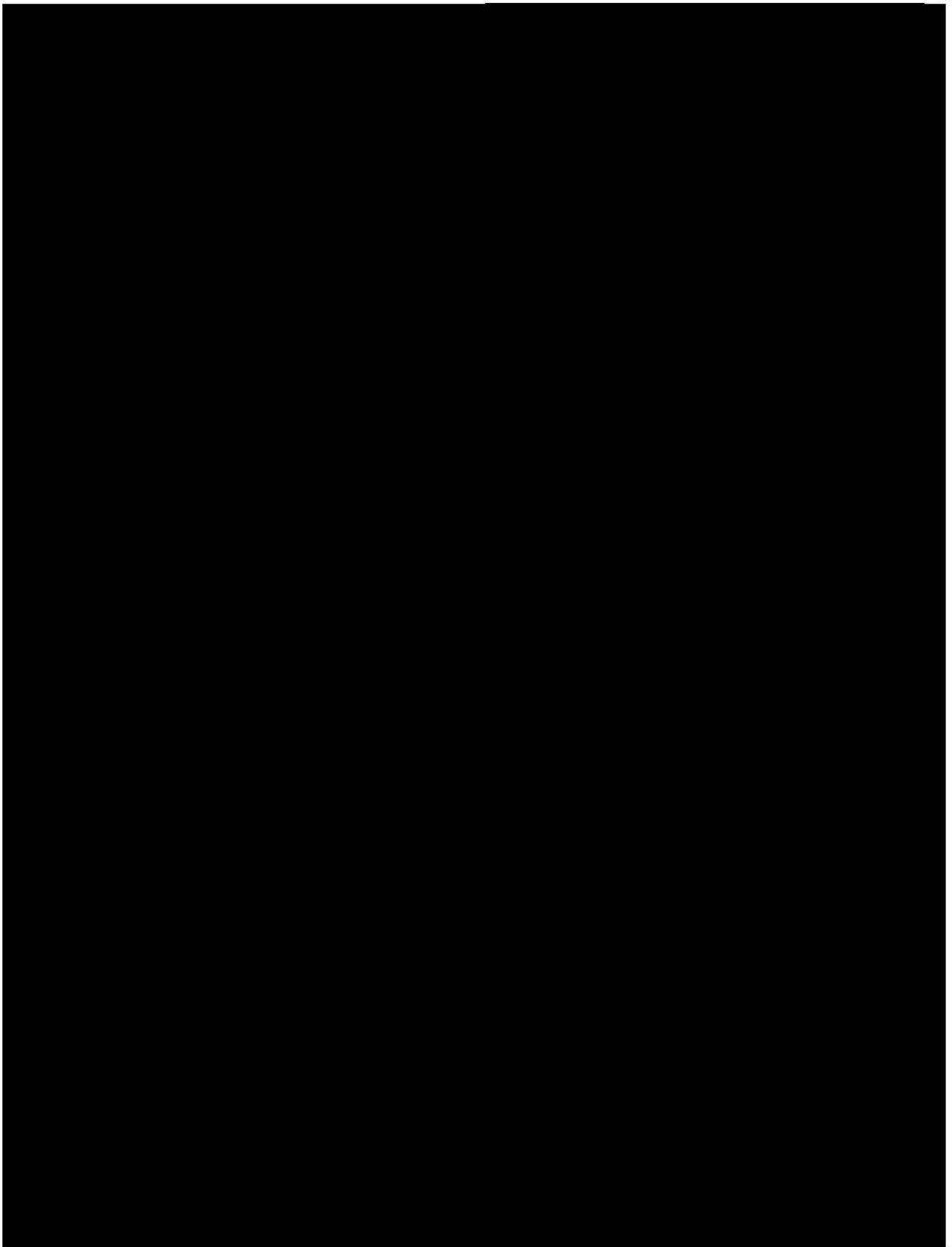
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NUCLEAR PARTNERSHIP, LLC**

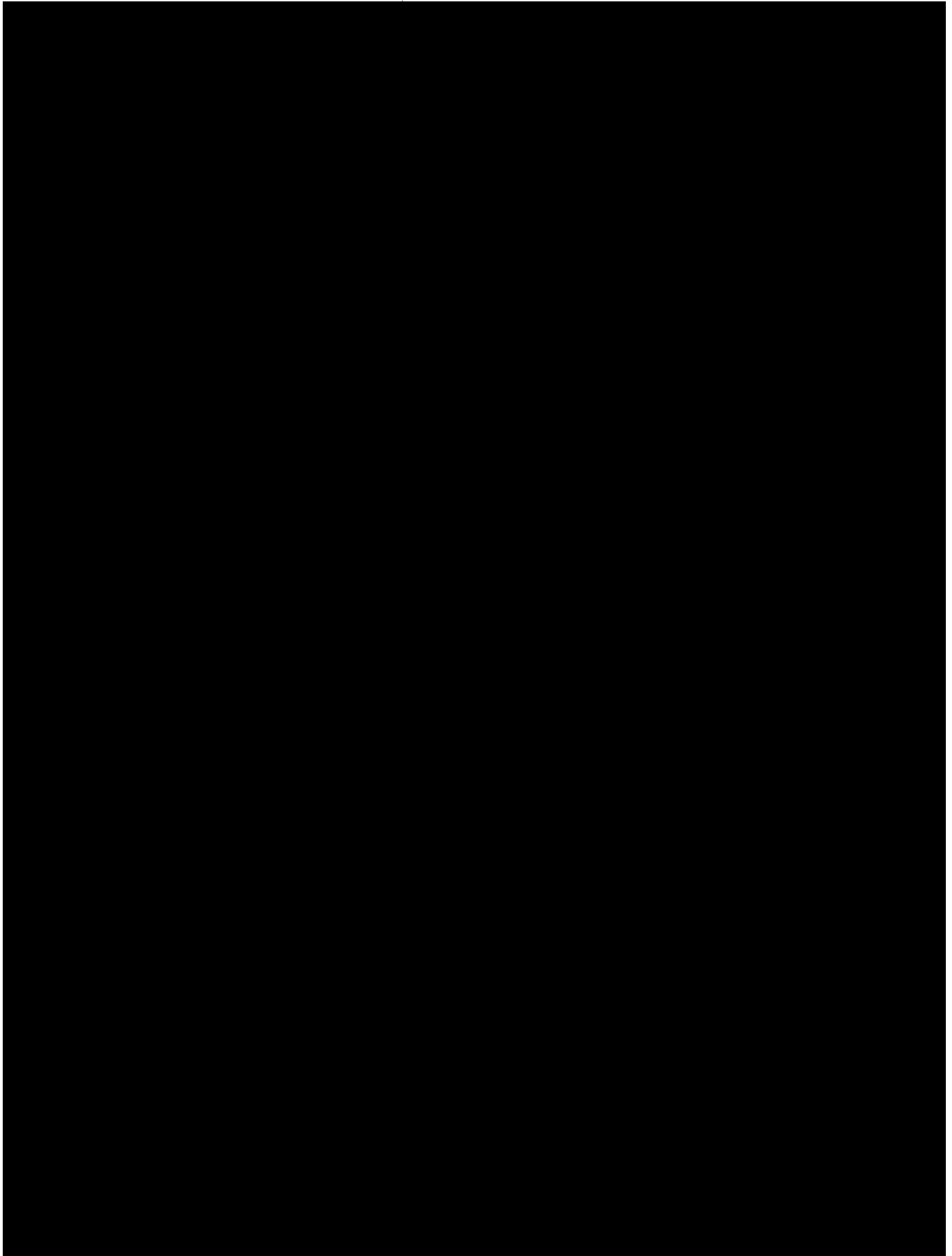


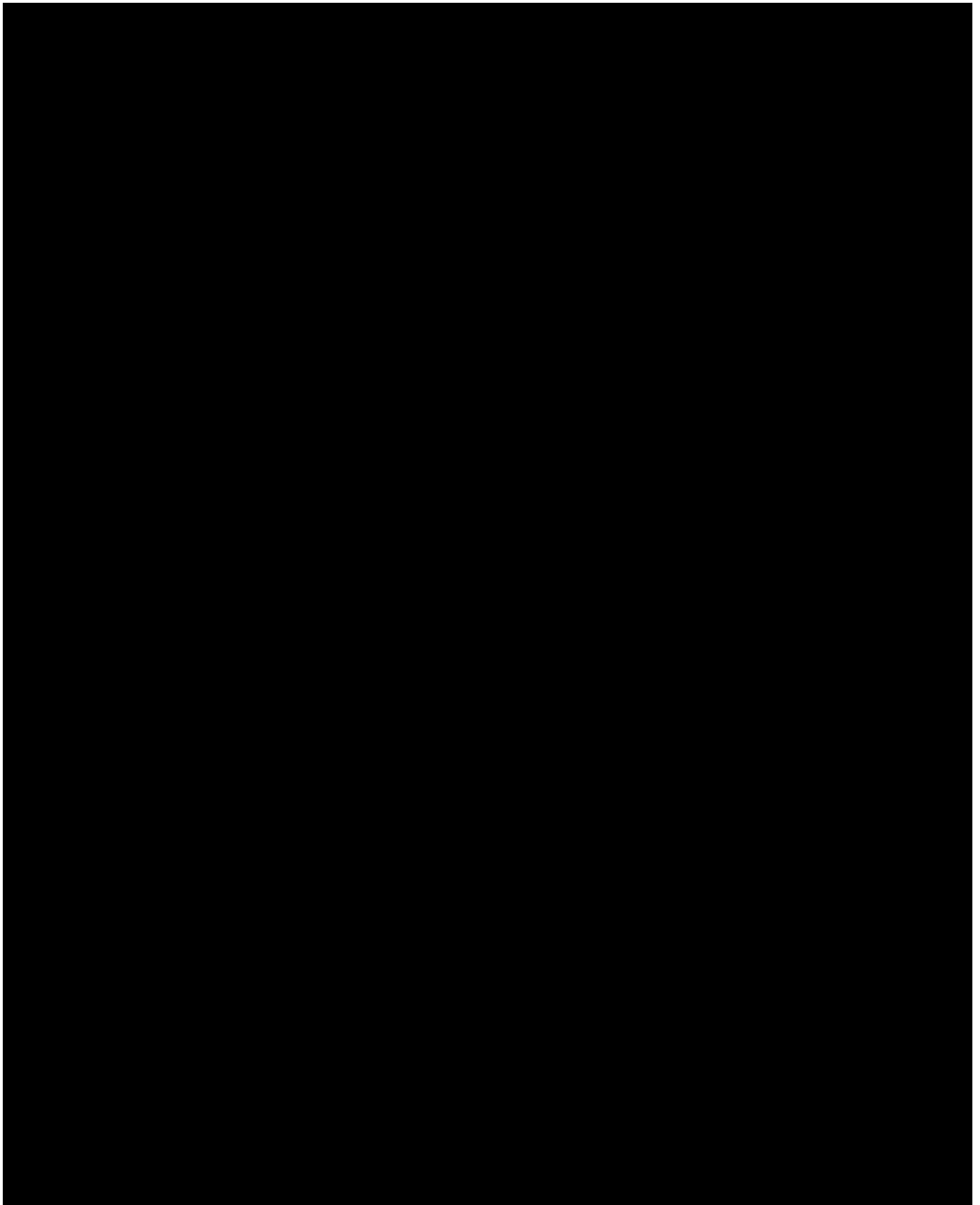












SECTION J, ATTACHMENT J-12a
Government Furnished Services and Interface Requirements Matrix

Table of Contents

Section 1: Services Provided by the Infrastructure Support Services Contractor.....	2
Section 2: Services Provided by the Deactivation and Remediation Contractor.....	12
Section 3: Services Provided by the Depleted Uranium Hexafluoride Conversion Facility Contractor	16
Section 4: Services Provided by the U.S. Department of Energy Technical Services Contractor (or Other Site Contractor).....	17

Services and activities listed in the Paducah Government Furnished Services and Interface Requirements Matrix shall be performed in accordance with the Performance Work Statement. The Paducah Government Furnished Services and Interface Requirements Matrix, identifies the key specific tasks and services that require interface and coordination with other site entities. The Paducah Government Furnished Services and Interface Requirements Matrix may not represent all of the necessary interactions; therefore, the Contractor is responsible to reach agreement with other site entities on any other necessary interfaces and/or the clause of services for the performance of the Contractor's work.

Section 1: Services Provided by the Infrastructure Support Services Contractor		
Item	Activity/Service Provided	Other Contractor Interface Requirement
1	<p>Safeguards & Security Program. Develops, conducts, coordinates, and maintains the Site Security Program (SSP) for Personnel Security, Information Security, Physical Security, Program Management, Cyber Security, Classification, site security posture, site protective strategies, all Government Furnished Services and Items (GFS&I), self-assessments and drafts the Annual Comprehensive Self-Assessment Report of all Security Programs to include the review/concurrence and utilization of Nuclear Materials Control and Accountability (NMC&A) and Protective Force assessments provided by the Deactivation and Remediation (D&R) Contractor. Additionally, the Infrastructure Contractor trains and appoints derivative classifiers.</p> <p>Security badging encompasses issuance and control of security badges, credentials, and shields. Other responsibilities include the administration of the Plant Access Enrollment System, Foreign National Visits and Assignments, Unclassified Visits, Area and Facility access, Contraband Pass issuance, and Vehicle Access Placard program. The Infrastructure Contractor is responsible for access control, badging, visitor control, subcontractor badging, and management of the Point of Entry process.</p> <p>Perform testing, intrusion detection, entry/access control, locksmith services (lock and key program) for on-site U.S. Department of Energy (DOE) facilities, and engineering and maintenance of installed physical security and access control systems.</p>	<p>DUF₆ <input checked="" type="checkbox"/> ISS <input type="checkbox"/> D&R <input checked="" type="checkbox"/> DOE Technical Support <input checked="" type="checkbox"/></p> <p>Other site contractors will interface and coordinate with service provider to:</p> <ul style="list-style-type: none"> ▪ ensure implementation and compliance with current DOE directives, SSP, approved plans; ▪ ensure annual security refresher training is completed; ▪ request approval for foreign national visits and assignments; ▪ coordinate with other site contractors and request support for, as appropriate, regarding Safeguards & Security programs such as information security, Incidents of Security Concern, visitor control information, physical security, personnel security, classification, cyber security, and program management; ▪ ensure control of badges issued to its workforce; ▪ recommend derivative classifier candidates for appointment; ▪ coordinate personnel security service requests with the Officially Designated Security Authority (ODSA) including pre-employee backgrounds, drug testing, and submission of justifications for all clearance activity via Form 238 submission; ▪ ensure a DOE compliant protection strategy exists for the protection of government property and information; and ▪ ensure that personnel maintain access control for their assigned facilities (locking doors and protecting property) consistent with Federal laws, Regulations, Paducah Site Security Plan and the protection strategy developed by the Infrastructure Contractor. <p>The D&R Contractor manages, maintains and supervises the Protective Force (PF) Program. This includes providing personnel and equipment required for support of the protective strategy developed by the ODSA. Ensures PF personnel are trained and equipped to DOE requirements for the task and providing operational procedures for the safe, efficient, and effective implementation of the DOE approved, ODSA Site Security Plan. The D&R Contractor will conduct self-assessments of the PF program and provide self-assessment reports and any resulting Corrective Action Plans (CAPs) to the ODSA for inclusion in the Annual Comprehensive Site Assessment Report submitted to the DOE Officially Designated Federal Security Authority (ODFSA)/ODSA. The D&R Contractor provides input to the Site Security Plan, the consolidated security report on security infractions, and provides an information security program.</p>

Paducah Gaseous Diffusion Plant Deactivation and Remediation
DE-EM0004895
MOD 0009

Section 1: Services Provided by the Infrastructure Support Services Contractor		
Item	Activity/Service Provided	Other Contractor Interface Requirement
2	<p>Radio & Telephone. Maintain the Federal Communications Commission radio frequency license, tower, transmission, and radio repairs. Radio services include engineering, maintenance and operations of radio communication services, including two-way, fire dispatch, safety and emergency preparedness, security systems and infrastructure. Manage radio services, including radio spectrum licensing and design, engineering integration, operations and maintenance, installation, upgrade and maintain required system calibration services. Maintain registration of radio frequencies with the National Telecommunications and Information Administration.</p> <p>Maintain the telephone lines and hardware (including telephones) related to the site wide telephone system. Telephone services function consists of the telephone exchange activities that encompass voice, data, special circuits, 911 support, and attendant/operator services to programs, projects, and support organizations. The Contractor provides all required telephone services including maintaining telecommunications capability and capacity, data and network circuits, off premise stations, telephone service to offsite offices occupied by end-users, alerting and crash alarm systems, and other miscellaneous voice and data circuits.</p> <p>Perform maintenance and repair of all installed data/communication lines up to and including the end user receptacle (jack or port), and reallocating/reassigning office phone numbers.</p> <p>Provide Mobile Device Management services and devices such as cell phones/smartphones/blackberry for the D&R Contractor.</p> <p>Provide voicemail operations for use by others.</p>	<p>DUF₆ <input checked="" type="checkbox"/> ISS <input type="checkbox"/> D&R <input checked="" type="checkbox"/> DOE Technical Support <input type="checkbox"/></p> <p>Interface and provide feedback on system capabilities/availability. Utilize the system in accordance with provider's instructions/procedures. For radios, provide own equipment to access the system. Programming of radios will be at each user's own expense.</p> <p>Depleted Uranium Hexafluoride Conversion Facility (DUF₆) - For telephones, provide all end user devices and equipment to connect to the site system at own expense.</p> <p>D&R - Coordinate use of radio frequencies and phone service needs. The D&R Contractor will support the Infrastructure Contractor to enable the elimination reliance on the Private Automatic Exchange telephone system within a year of the Notice to Proceed.</p> <p>The D&R contractor will be limited to 850 (+/- 15%) phone numbers/lines and 380 (+/- 15%) cell phones/smartphones/blackberry, including hot spot wireless devices.</p>
3	<p>Emergency Notification Service. Provide reliable electronic notification service to individual personnel associated with the Paducah Gaseous Diffusion Plant (PGDP) emergency response organizations.</p>	<p>DUF₆ <input checked="" type="checkbox"/> ISS <input type="checkbox"/> D&R <input checked="" type="checkbox"/> DOE Technical Support <input type="checkbox"/></p> <p>Utilize services and interface on needs and service levels provided.</p>