

2. AMENDMENT/MODIFICATION NO. 0679	3. EFFECTIVE DATE 09/28/2018	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
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6. ISSUED BY Richlands Operations Office U.S. Department of Energy Richland Operations Office P.O. Box 550, MSIN H5-20 Richland WA 99352	CODE 893039	7. ADMINISTERED BY (If other than Item 6) Richland Operations Office U.S. Department of Energy Richland Operations Office P.O. Box 550, MSIN H5-20 Richland WA 99352	CODE 00601
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) CH2M HILL PLATEAU REMEDIATION COMPANY Attn: Kala Dickerson 2420 Stevens Drive RICHLAND WA 99352-1659	(x)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	x	10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC06-08RL14788
		10B. DATED (SEE ITEM 13) 06/19/2008

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended.  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule	Net Increase:	\$6,855,825.42
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**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Clause B.3, Obligation and Availability of Funds

**E. IMPORTANT:** Contractor  is not.  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

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

DUNS Number: 805603128

A. The purpose of this modification is to obligate \$6,855,825.42 of funding on this contract as shown in the attached Financial Plan Number 68 and to add a zero-dollar requisition to initiate net zero adjustments in local use codes (Financial Plan Number 67).

B. Pursuant to Contract Clause B.3, Obligation and Availability of Funds, the amount of funds (non-Recovery Act) is hereby increased by \$6,855,825.42 from \$4,583,042,356.98 to \$4,589,898,182.40.

C. Pursuant to Clause B.15, Other Costs and Projects, \$3,400,000.00 is obligated to IEWO 425466, RTL Complex Demo Project 2. Clause B.15 is increased by \$3,400,000.00 from

Continued ...

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

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Jenise C. Connerly
15B. CONTRACTOR/OFFEROR  <i>(Signature of person authorized to sign)</i>	15C. DATE SIGNED
	16B. UNITED STATES OF AMERICA Signature on File  <i>(Signature of Contracting Officer)</i>
	16C. DATE SIGNED 09/28/2018

**CONTINUATION SHEET**

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC06-08RL14788/0679

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NAME OF OFFEROR OR CONTRACTOR  
CH2M HILL PLATEAU REMEDIATION COMPANY

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>\$23,730,419.21 to \$27,130,419.21.</p> <p>D. A conformed Section B will be provided with a subsequent modification.</p> <p>E. The effective date of the funding changes is the date of the Financial Plan 9/28/2018.</p> <p>F. This modification and supporting documentation has been routed through STRIPES, for review/approval, by a Warranted Contracting Officer prior to signature.</p> <p>FOB: Destination Period of Performance: 06/19/2008 to 09/30/2019</p>				

Financial Plan Number: 67

U.S. DEPARTMENT OF ENERGY  
 DOE AFP Local Financial Plan Report  
 Period Name: SEP-18  
 PO Number: RL14788  
 Fund Parent: ALL FUNDS  
 Fiscal Year: 2018  
 Reporting Entity:  
 Allottee:  
 Run Prior AFP Report?: N  
 Report Run Type: PRELIMINARY  
 Prior Financial Plan Run Code: RL14788-66 (17-SEP-2018 12:41:28)  
 To Date:  
 Report Output Type: BEARS VERSION  
 Report Output: TEXT

Report Date: 27-SEP-18 12:14  
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Rep Entity	Fund Code	Approp Year	Legacy Program B&R	Object Class	Local Use	Project	Legacy WFO	Order Number	Beginning	Uncosted Obs	Previous	Change	Revised	Total Available
421101	04000	2005	1110549 EY084910B	25400	0000000	0000700	0000000		114,904.31	0.00	0.00	0.00	0.00	114,904.31
Subtotal for Program Parent: C000971, EY0800000									114,904.31	0.00	0.00	0.00	114,904.31	
Subtotal for Fund: 04000									114,904.31	0.00	0.00	0.00	114,904.31	
Subtotal for Reporting Entity: 421101									114,904.31	0.00	0.00	0.00	114,904.31	
421701	00911	2007	1721310 YN1901000	25400	0000000	0000000	0420983	RLTSKFA9902	273,238.52	0.00	0.00	0.00	0.00	273,238.52
Subtotal for Program Parent: C001129, YN1900000									273,238.52	0.00	0.00	0.00	273,238.52	
Subtotal for Fund: 00911									273,238.52	0.00	0.00	0.00	273,238.52	
Subtotal for Reporting Entity: 421701									273,238.52	0.00	0.00	0.00	273,238.52	
422100	00900	2014	2220667 DP0902090	25400	0000000	0000000	0000000		6,466.79	-6,466.79	0.00	-6,466.79	0.00	0.00
Subtotal for Program Parent: C000903, DP0902000									6,466.79	-6,466.79	0.00	-6,466.79	0.00	
Subtotal for Fund: 00900									6,466.79	-6,466.79	0.00	-6,466.79	0.00	
00910	2018	6000021	453440086	25400	0000000	0000000	0421794		0.00	145,631.07	0.00	145,631.07	145,631.07	
2018	6000021	453440086		25400	0000000	0000000	0421788		0.00	97,087.38	0.00	97,087.38	97,087.38	
2018	6000021	453440086		25400	0000000	0000000	0421793		0.00	89,320.39	0.00	89,320.39	89,320.39	
2017	6000021	453440086		25400	0000000	0000000	0421775		40,800.85	-6,817.04	0.00	-6,817.04	33,983.81	
2017	6000021	453440086		25400	0000000	0000000	0421779		2,479.06	-5,425.65	0.00	-5,425.65	-2,946.59	
2017	6000021	453440086		25400	0000000	0000000	0421778		39,749.29	-28,680.29	0.00	-28,680.29	11,069.00	
Subtotal for Program Parent: C003002, 453400000									83,029.20	291,115.86	0.00	291,115.86	374,145.06	
Subtotal for Fund: 00910									83,029.20	291,115.86	0.00	291,115.86	374,145.06	
00911	2018	1721310	YN1901000	25400	0000000	0000000	0425508		0.00	198,040.00	0.00	198,040.00	198,040.00	
2018	1721310	YN1901000		25400	0000000	0000000	0425493		0.00	8,815.00	0.00	8,815.00	8,815.00	
2018	1721310	YN1901000		25400	0000000	0000000	0425492		0.00	10,531.61	0.00	10,531.61	10,531.61	
Subtotal for Program Parent: C001129, YN1900000									0.00	217,386.61	0.00	217,386.61	217,386.61	
Subtotal for Fund: 00911									0.00	217,386.61	0.00	217,386.61	217,386.61	
00922	2018	1721310	YN1901000	25400	0000000	0000000	0425342		0.00	20,689.22	0.00	20,689.22	20,689.22	
2018	1721310	YN1901000		25400	0000000	0000000	0425343		0.00	189,153.72	0.00	189,153.72	189,153.72	
2018	1721310	YN1901000		25400	0000000	0000000	0425466		0.00	8,071,522.00	0.00	8,071,522.00	8,071,522.00	
2018	1721310	YN1901000		25400	0000000	0000000	0425167		0.00	34,150.10	0.00	34,150.10	34,150.10	
2018	1721310	YN1901000		25400	0000000	0000000	0425513		0.00	24,139.14	0.00	24,139.14	24,139.14	
2018	1721310	YN1901000		25400	0000000	0000000	0425396		0.00	18,943.91	0.00	18,943.91	18,943.91	
2018	1721310	YN1901000		25400	0000000	0000000	0425443		0.00	1,597,470.00	0.00	1,597,470.00	1,597,470.00	
2017	1721310	YN1901000		25400	0000000	0000000	0425167		35,308.90	0.00	0.00	0.00	35,308.90	
2017	1721310	YN1901000		25400	0000000	0000000	0425391		19,975.64	-19,591.10	0.00	-19,591.10	384.54	
2017	1721310	YN1901000		25400	0000000	0000000	0425343		171,513.83	0.00	0.00	0.00	171,513.83	
2017	1721310	YN1901000		25400	0000000	0000000	0425443		2,696,966.68	0.00	0.00	0.00	2,696,966.68	
2017	1721310	YN1901000		25400	0000000	0000000	0425429		44,508.37	0.00	0.00	0.00	44,508.37	
2017	1721310	YN1901000		25400	0000000	0000000	0425342		53,269.17	0.00	0.00	0.00	53,269.17	
2017	1721310	YN1901000		25400	0000000	0000000	0425396		15,964.55	0.00	0.00	0.00	15,964.55	
2016	1721310	YN1901000		25400	0000000	0000000	0425391		0.00	-8.37	0.00	-8.37	-8.37	
2016	1721310	YN1901000		25400	0000000	0000000	0425396		1,101.44	0.00	0.00	0.00	1,101.44	
2016	1721310	YN1901000		25400	0000000	0000000	0425167		5,907.06	0.00	0.00	0.00	5,907.06	
2016	1721310	YN1901000		25400	0000000	0000000	0425343		40,645.55	0.00	0.00	0.00	40,645.55	
2015	1721310	YN1901000		25400	0000000	0000000	0425338		17,863.52	0.00	0.00	0.00	17,863.52	
2014	1721310	YN1901000		25499	0000000	0000000	0425163		3,500.00	0.00	0.00	0.00	3,500.00	

Financial Plan Number: 67

U.S. DEPARTMENT OF ENERGY  
 DOE AFP Local Financial Plan Report  
 Period Name: SEP-18  
 PO Number: RL14788  
 Fund Parent: ALL FUNDS  
 Fiscal Year: 2018  
 Reporting Entity:  
 Allottee:  
 Run Prior AFP Report?: N  
 Report Run Type: PRELIMINARY  
 Prior Financial Plan Run Code: RL14788-66 (17-SEP-2018 12:41:28)  
 To Date:  
 Report Output Type: BEARS VERSION  
 Report Output: TEXT

Report Date: 27-SEP-18 12:14  
 Page: 2 of 4

Rep Entity	Fund Code	Approp Year	Legacy Program B&R	Object Class	Local Use	Legacy Project	WFO	Order Number	Beginning Uncosted	Obs	Previous	Change	Revised	Total Available
422100	00922	2013	1721310 YN1901000	25499	0000000	0000000	0425163		3,595.24	0.00	0.00	0.00	0.00	3,595.24
Subtotal for Program Parent: C001129, YN1900000									3,110,119.95	9,936,468.62	0.00	9,936,468.62	13,046,588.57	
Subtotal for Fund: 00922									3,110,119.95	9,936,468.62	0.00	9,936,468.62	13,046,588.57	
01250	2018	1111549	EY520111A	25400	0000000	0001520	0000000		0.00	25,892,375.56	0.00	25,892,375.56	25,892,375.56	
2017	1111549	EY520111A	25400	0000000	0001520	0000000			30,002,965.86	24,100,902.07	0.00	24,100,902.07	54,103,867.93	
2016	1111549	EY520111A	25400	0000000	0001520	0000000			0.00	27,073.53	0.00	27,073.53	27,073.53	
2015	1111549	EY520111A	25400	0000000	0001520	0000000			0.00	2.67	0.00	2.67	2.67	
2014	1111549	EY520111A	25400	0000000	0001520	0000000			0.00	12,201.88	0.00	12,201.88	12,201.88	
2018	1111551	EY5201120	25400	0000000	0001521	0000000			0.00	41,305,276.11	629,723.89	41,935,000.00	41,935,000.00	
2018	1111551	EY5201120	32002	0427218	0001521	0000000			0.00	629,723.91	-629,723.89	0.02	0.02	
2017	1111551	EY5201120	25400	0000000	0001521	0000000			1,535,894.82	-1,535,894.82	0.00	-1,535,894.82	0.00	
2017	1111551	EY5201120	32002	0427218	0001521	0000000			629,669.90	-629,669.90	0.00	-629,669.90	0.00	
2016	1111551	EY5201120	32002	0427218	0001521	0000000			54.01	-54.03	0.00	-54.03	-0.02	
2018	1111552	EY520113A	32002	0427228	0001522	0000000			0.00	10,000.00	-7,562.27	2,437.73	2,437.73	
2018	1111552	EY520113A	32001	0427207	0001522	0000000			0.00	10,000.00	0.00	10,000.00	10,000.00	
2018	1111552	EY520113A	25400	0421536	0001522	0000000			0.00	6,400,000.00	-3,900,000.00	2,500,000.00	2,500,000.00	
2018	1111552	EY520113A	32002	0427239	0001522	0000000			0.00	1,490,000.00	-1,200,000.00	290,000.00	290,000.00	
2018	1111552	EY520113A	31003	0421580	0001522	0000000			0.00	7,000,000.00	-1,000,000.00	6,000,000.00	6,000,000.00	
2018	1111552	EY520113A	25400	0000000	0001522	0000000			0.00	127,376,896.99	6,307,562.27	133,684,459.26	133,684,459.26	
2018	1111552	EY520113A	32002	0421536	0001522	0000000			0.00	2,000,000.00	-200,000.00	1,800,000.00	1,800,000.00	
2017	1111552	EY520113A	25400	0421536	0001522	0000000			467,521.85	-3,351,984.59	0.00	-3,351,984.59	-2,884,462.74	
2017	1111552	EY520113A	25400	0000000	0001522	0000000			7,359,960.09	-5,375,497.35	0.00	-5,375,497.35	1,984,462.74	
2017	1111552	EY520113A	32002	0427239	0001522	0000000			668,000.00	-668,000.00	0.00	-668,000.00	0.00	
2017	1111552	EY520113A	32002	0427228	0001522	0000000			152,495.62	-155,190.73	0.00	-155,190.73	-2,695.11	
2017	1111552	EY520113A	32002	0427188	0001522	0000000			95,351.66	-95,351.66	0.00	-95,351.66	0.00	
2017	1111552	EY520113A	32001	0427207	0001522	0000000			2,443,681.05	-2,443,681.05	0.00	-2,443,681.05	0.00	
2016	1111552	EY520113A	32002	0427188	0001522	0000000			9.11	-9.11	0.00	-9.11	0.00	
2014	1111552	EY520113A	25400	0000000	0001522	0000000			0.00	201.36	0.00	201.36	201.36	
2014	1111552	EY520113A	32001	0427207	0001522	0000000			0.00	-12,403.24	0.00	-12,403.24	-12,403.24	
2018	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	109,162,011.45	3,533,246.06	112,695,257.51	112,695,257.51	
2018	1111554	EY520130A	32002	0427243	0001524	0000000			0.00	600,000.00	-100,000.00	500,000.00	500,000.00	
2018	1111554	EY520130A	32002	0427222	0001524	0000000			0.00	185,000.00	-165,000.00	20,000.00	20,000.00	
2018	1111554	EY520130A	32002	0427224	0001524	0000000			0.00	1,250,000.00	-792,500.00	457,500.00	457,500.00	
2018	1111554	EY520130A	32002	0427217	0001524	0000000			0.00	10,000.00	-10,000.00	0.00	0.00	
2018	1111554	EY520130A	25400	0421568	0001524	0000000			0.00	1,615,000.00	-1,615,000.00	0.00	0.00	
2018	1111554	EY520130A	31002	0421585	0001524	0000000			0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	31002	0421568	0001524	0000000			0.00	2,500,000.00	108,000.00	2,608,000.00	2,608,000.00	
2018	1111554	EY520130A	32002	0427249	0001524	0000000			0.00	0.00	550,000.00	550,000.00	550,000.00	
2018	1111554	EY520130A	31002	0421582	0001524	0000000			0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	32002	0427226	0001524	0000000			0.00	1,450,000.00	-798,246.06	651,753.94	651,753.94	
2018	1111554	EY520130A	31002	0421581	0001524	0000000			0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	32002	0427197	0001524	0000000			0.00	350,000.00	-350,000.00	0.00	0.00	
2018	1111554	EY520130A	32002	0427229	0001524	0000000			0.00	120,000.00	0.00	120,000.00	120,000.00	
2018	1111554	EY520130A	32002	0427225	0001524	0000000			0.00	2,310,000.00	-320,000.00	1,990,000.00	1,990,000.00	
2018	1111554	EY520130A	31002	0421584	0001524	0000000			0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	32002	0427221	0001524	0000000			0.00	406,974.77	-40,500.00	366,474.77	366,474.77	
2018	1111554	EY520130A	31002	0421583	0001524	0000000			0.00	200,000.00	0.00	200,000.00	200,000.00	
2017	1111554	EY520130A	32002	0427225	0001524	0000000			276,645.22	-276,645.22	0.00	-276,645.22	0.00	
2017	1111554	EY520130A	32002	0427196	0001524	0000000			62,174.93	-62,174.93	0.00	-62,174.93	0.00	
2017	1111554	EY520130A	32002	0427190	0001524	0000000			136,664.72	-136,664.72	0.00	-136,664.72	0.00	
2017	1111554	EY520130A	32002	0427226	0001524	0000000			340,946.44	-340,946.44	0.00	-340,946.44	0.00	
2017	1111554	EY520130A	32002	0427221	0001524	0000000			301,730.17	-301,730.17	0.00	-301,730.17	0.00	
2017	1111554	EY520130A	32002	0427222	0001524	0000000			79,536.21	-79,536.21	0.00	-79,536.21	0.00	
2017	1111554	EY520130A	32002	0427229	0001524	0000000			665,324.04	-674,814.65	0.00	-674,814.65	-9,490.61	
2017	1111554	EY520130A	25400	0000000	0001524	0000000			5,360,093.86	-6,110,486.45	0.00	-6,110,486.45	-750,392.59	
2017	1111554	EY520130A	32002	0427197	0001524	0000000			445,943.62	-452,035.12	0.00	-452,035.12	-6,091.50	
2017	1111554	EY520130A	32002	0427223	0001524	0000000			100,000.00	-100,000.00	0.00	-100,000.00	0.00	
2017	1111554	EY520130A	32002	0427224	0001524	0000000			655,998.77	-655,998.77	0.00	-655,998.77	0.00	
2017	1111554	EY520130A	32002	0427217	0001524	0000000			501,042.36	-504,991.88	0.00	-504,991.88	-3,949.52	
2016	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	134,355.58	0.00	134,355.58	134,355.58	
2016	1111554	EY520130A	32002	0427221	0001524	0000000			0.00	-5,245.60	0.00	-5,245.60	-5,245.60	
2016	1111554	EY520130A	32002	0427217	0001524	0000000			20,074.09	-21,764.79	0.00	-21,764.79	-1,690.70	
2015	1111554	EY520130A	32002	0427190	0001524	0000000			2.67	-2.67	0.00	-2.67	0.00	
2015	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	35,728.09	0.00	35,728.09	35,728.09	
2014	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	70.38	0.00	70.38	70.38	
2013	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	2,492.08	0.00	2,492.08	2,492.08	
2011	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	14,390.84	0.00	14,390.84	14,390.84	
2009	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	541,010.31	0.00	541,010.31	541,010.31	
2006	1111554	EY520130A	25400	0000000	0001524	0000000			0.00	62,936.02	0.00	62,936.02	62,936.02	

2018	1111557	EY5202410	32002	0427192	0001526	0000000	0.00	143,975.09	-143,975.09	0.00	0.00
2018	1111557	EY5202410	25400	0000000	0001526	0000000	0.00	113,448,858.91	143,975.09	113,592,834.00	113,592,834.00
2017	1111557	EY5202410	25400	0000000	0001526	0000000	28,981,191.23	143,975.09	0.00	143,975.09	29,125,166.32
2017	1111557	EY5202410	32002	0427192	0001526	0000000	143,975.09	-143,975.09	0.00	-143,975.09	0.00
Subtotal for Program Parent: C002857, EY5202000							40,106,260.11	170,662,018.99	0.00	170,662,018.99	210,768,279.10
2017	1111637	39EY52000PRN15D401000	32004	0000000	0001521	0000000	1,103,000.00	997,612.28	0.00	997,612.28	2,100,612.28
2017	1111637	39EY52000PRN15D401000	32004	0421519	0001521	0000000	3,976,494.01	-997,612.28	0.00	-997,612.28	2,978,881.73
2016	1111637	39EY52000PRN15D401000	32004	0000000	0001521	0000000	23,702,145.20	-5,853,000.00	0.00	-5,853,000.00	17,849,145.20
2016	1111637	39EY52000PRN15D401000	32004	0421519	0001521	0000000	0.00	5,853,000.00	0.00	5,853,000.00	5,853,000.00
Subtotal for Program Parent: C002965, 39EY52000							28,781,639.21	0.00	0.00	0.00	28,781,639.21
2018	1111691	39EY52000PRN18D404000	32004	0421536	0001522	0000000	0.00	6,500,000.00	0.00	6,500,000.00	6,500,000.00
Subtotal for Program Parent: C003103, 39EY52000							0.00	6,500,000.00	0.00	6,500,000.00	6,500,000.00
Subtotal for Fund: 01250							121,189,680.39	511,175,868.49	0.00	511,175,868.49	632,365,548.88
01751	2018	1110958	EZ4042421	25400	0000000	0001527	0000000	0.00	2,240,000.00	0.00	2,240,000.00
2017	1110958	EZ4042421	25400	0000000	0001527	0000000	1,784,284.36	0.00	0.00	0.00	1,784,284.36
Subtotal for Program Parent: C002146, EZ4000000							1,784,284.36	2,240,000.00	0.00	2,240,000.00	4,024,284.36
Subtotal for Fund: 01751							1,784,284.36	2,240,000.00	0.00	2,240,000.00	4,024,284.36
Subtotal for Reporting Entity: 422100							126,173,580.69	523,854,372.79	0.00	523,854,372.79	650,027,953.48
Grand Total:							126,561,723.52	523,854,372.79	0.00	523,854,372.79	650,416,096.31

Agency Sub-Report

Agency: U.S. DEPARTMENT OF ENERGY  
 Financial Plan Number: 67  
 DOE AFP Local Financial Plan Report  
 Period Name: SEP-18  
 PO Number: RL14788  
 Fund Parent: ALL FUNDS  
 Fiscal Year: 2018  
 Reporting Entity:  
 Allottee:  
 Run Prior AFP Report?: N  
 Report Run Type: PRELIMINARY  
 Prior Financial Plan Run Code: RL14788-66 (17-SEP-2018 12:41:28)  
 To Date:  
 Report Output Type: BEARS VERSION  
 Report Output: TEXT

Report Date: 27-SEP-18 12:14  
 Page: 4 of 4

Rep Entity	Fund Code	Approp Year	Legacy Program B&R	Object Class	Local Use	Project	WFO	Legacy Order Number	Beginning	Uncosted Obs	Previous	Change	Revised	Total Available
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Agency Sub-Report

Agency: Work for Others Funds Associated with Federal Agencies: 0.00

Total DOE Funds: 0.00

Total Non-Appropriated Funds: 0.00

Grand Total: 0.00

TAS Sub-Report

DOE Funding:  
 Reimbursable Funding:  
 \*\*\* End of Report \*\*\*

Fiscal Year	Finplan Nu	Rpt Entity	Purchase CFund Code	Approp Ye:	Program	Object Clas	Local Use	Project	BA Previous	BA Change	BA Revised	Total Available
2018	67	422100 RL14788	1250	2018	1111554	32002	427217	1524	10,000.00	(10,000.00)	-	-
2018	67	422100 RL14788	1250	2018	1111552	32002	427228	1522	10,000.00	(7,562.27)	2,437.73	2,437.73
2018	67	422100 RL14788	1250	2018	1111552	32002	427239	1522	1,490,000.00	(1,200,000.00)	290,000.00	290,000.00
2018	67	422100 RL14788	1250	2018	1111554	32002	427222	1524	185,000.00	(165,000.00)	20,000.00	20,000.00
2018	67	422100 RL14788	1250	2018	1111556	31003	0	4009	-	3,082,600.00	3,082,600.00	3,082,600.00
2018	67	422100 RL14788	1250	2018	1111551	32002	427218	1521	629,723.91	(629,723.89)	0.02	0.02
2018	67	422100 RL14788	1250	2018	1111554	32002	427226	1524	1,450,000.00	(798,246.06)	651,753.94	651,753.94
2018	67	422100 RL14788	1250	2018	1111554	25400	0	1524	109,162,011.45	3,533,246.06	112,695,257.51	112,695,257.51
2018	67	422100 RL14788	1250	2018	1111556	25400	0	4009	55,052,037.18	(3,082,600.00)	51,969,437.18	51,969,437.18
2018	67	422100 RL14788	1250	2018	1111552	32002	421536	1522	2,000,000.00	(200,000.00)	1,800,000.00	1,800,000.00
2018	67	422100 RL14788	1250	2018	1111554	32002	427224	1524	1,250,000.00	(792,500.00)	457,500.00	457,500.00
2018	67	422100 RL14788	1250	2018	1111557	32002	427192	1526	143,975.09	(143,975.09)	-	-
2018	67	422100 RL14788	1250	2018	1111554	32002	427225	1524	2,310,000.00	(320,000.00)	1,990,000.00	1,990,000.00
2018	67	422100 RL14788	1250	2018	1111554	31002	421568	1524	2,500,000.00	108,000.00	2,608,000.00	2,608,000.00
2018	67	422100 RL14788	1250	2018	1111557	25400	0	1526	113,448,858.91	143,975.09	113,592,834.00	113,592,834.00
2018	67	422100 RL14788	1250	2018	1111552	31003	421580	1522	7,000,000.00	(1,000,000.00)	6,000,000.00	6,000,000.00
2018	67	422100 RL14788	1250	2018	1111552	25400	0	1522	127,376,896.99	6,307,562.27	133,684,459.26	133,684,459.26
2018	67	422100 RL14788	1250	2018	1111554	25400	421568	1524	1,615,000.00	(1,615,000.00)	-	-
2018	67	422100 RL14788	1250	2018	1111554	32002	427249	1524	-	550,000.00	550,000.00	550,000.00
2018	67	422100 RL14788	1250	2018	1111552	25400	421536	1522	6,400,000.00	(3,900,000.00)	2,500,000.00	2,500,000.00
2018	67	422100 RL14788	1250	2018	1111554	32002	427243	1524	600,000.00	(100,000.00)	500,000.00	500,000.00
2018	67	422100 RL14788	1250	2018	1111554	32002	427197	1524	350,000.00	(350,000.00)	-	-
2018	67	422100 RL14788	1250	2018	1111551	25400	0	1521	41,305,276.11	629,723.89	41,935,000.00	41,935,000.00
2018	67	422100 RL14788	1250	2018	1111554	32002	427221	1524	406,974.77	(40,500.00)	366,474.77	366,474.77
										(0.00)		

Financial Plan Number: 68

U.S. DEPARTMENT OF ENERGY  
DOE AFP Local Financial Plan Report  
Period Name: SEP-18  
PO Number: RL14788  
Fund Parent: ALL FUNDS  
Fiscal Year: 2018  
Reporting Entity:  
Allottee:  
Run Prior AFP Report?: N  
Report Run Type: PRELIMINARY  
Prior Financial Plan Run Code: RL14788-67 (27-SEP-2018 12:31:46)  
To Date:  
Report Output Type: BEARS VERSION  
Report Output: TEXT

Report Date: 28-SEP-18 16:05  
Page: 1 of 4

Rep Entity	Fund Code	Approp Year	Legacy Program B&R	Object Class	Local Use	Project	Legacy WFO	Order Number	Beginning	Uncosted Obs	Previous	Change	Revised	Total Available
421101	04000	2005	1110549 EY084910B	25400	0000000	0000700	0000000		114,904.31	0.00	0.00	0.00	0.00	114,904.31
Subtotal for Program Parent: C000971, EY0800000									114,904.31	0.00	0.00	0.00	114,904.31	
Subtotal for Fund: 04000									114,904.31	0.00	0.00	0.00	114,904.31	
Subtotal for Reporting Entity: 421101									114,904.31	0.00	0.00	0.00	114,904.31	
421701	00911	2007	1721310 YN1901000	25400	0000000	0000000	0420983	RLTSKFA9902	273,238.52	0.00	0.00	0.00	0.00	273,238.52
Subtotal for Program Parent: C001129, YN1900000									273,238.52	0.00	0.00	0.00	273,238.52	
Subtotal for Fund: 00911									273,238.52	0.00	0.00	0.00	273,238.52	
Subtotal for Reporting Entity: 421701									273,238.52	0.00	0.00	0.00	273,238.52	
422100	00900	2014	2220667 DP0902090	25400	0000000	0000000	0000000		6,466.79	-6,466.79	0.00	-6,466.79	0.00	0.00
Subtotal for Program Parent: C000903, DP0902000									6,466.79	-6,466.79	0.00	-6,466.79	0.00	
Subtotal for Fund: 00900									6,466.79	-6,466.79	0.00	-6,466.79	0.00	
00910	2018	6000021	453440086	25400	0000000	0000000	0421794		0.00	145,631.07	0.00	145,631.07	145,631.07	
2018	6000021	453440086		25400	0000000	0000000	0421788		0.00	97,087.38	0.00	97,087.38	97,087.38	
2018	6000021	453440086		25400	0000000	0000000	0421793		0.00	89,320.39	0.00	89,320.39	89,320.39	
2017	6000021	453440086		25400	0000000	0000000	0421775		40,800.85	-6,817.04	0.00	-6,817.04	33,983.81	
2017	6000021	453440086		25400	0000000	0000000	0421779		2,479.06	-5,425.65	0.00	-5,425.65	-2,946.59	
2017	6000021	453440086		25400	0000000	0000000	0421778		39,749.29	-28,680.29	0.00	-28,680.29	11,069.00	
Subtotal for Program Parent: C003002, 453400000									83,029.20	291,115.86	0.00	291,115.86	374,145.06	
Subtotal for Fund: 00910									83,029.20	291,115.86	0.00	291,115.86	374,145.06	
00911	2018	1721310	YN1901000	25400	0000000	0000000	0425508		0.00	198,040.00	0.00	198,040.00	198,040.00	
2018	1721310	YN1901000		25400	0000000	0000000	0425493		0.00	8,815.00	0.00	8,815.00	8,815.00	
2018	1721310	YN1901000		25400	0000000	0000000	0425492		0.00	10,531.61	0.00	10,531.61	10,531.61	
Subtotal for Program Parent: C001129, YN1900000									0.00	217,386.61	0.00	217,386.61	217,386.61	
Subtotal for Fund: 00911									0.00	217,386.61	0.00	217,386.61	217,386.61	
00922	2018	1721310	YN1901000	25400	0000000	0000000	0425342		0.00	20,689.22	0.00	20,689.22	20,689.22	
2018	1721310	YN1901000		25400	0000000	0000000	0425343		0.00	189,153.72	0.00	189,153.72	189,153.72	
2018	1721310	YN1901000		25400	0000000	0000000	0425466		0.00	8,071,522.00	3,400,000.00	11,471,522.00	11,471,522.00	
2018	1721310	YN1901000		25400	0000000	0000000	0425167		0.00	34,150.10	0.00	34,150.10	34,150.10	
2018	1721310	YN1901000		25400	0000000	0000000	0425513		0.00	24,139.14	0.00	24,139.14	24,139.14	
2018	1721310	YN1901000		25400	0000000	0000000	0425396		0.00	18,943.91	0.00	18,943.91	18,943.91	
2018	1721310	YN1901000		25400	0000000	0000000	0425443		0.00	1,597,470.00	0.00	1,597,470.00	1,597,470.00	
2017	1721310	YN1901000		25400	0000000	0000000	0425167		35,308.90	0.00	0.00	0.00	35,308.90	
2017	1721310	YN1901000		25400	0000000	0000000	0425391		19,975.64	-19,591.10	0.00	-19,591.10	384.54	
2017	1721310	YN1901000		25400	0000000	0000000	0425429		44,508.37	0.00	0.00	0.00	44,508.37	
2017	1721310	YN1901000		25400	0000000	0000000	0425443		2,696,966.68	0.00	0.00	0.00	2,696,966.68	
2017	1721310	YN1901000		25400	0000000	0000000	0425343		171,513.83	0.00	0.00	0.00	171,513.83	
2017	1721310	YN1901000		25400	0000000	0000000	0425342		53,269.17	0.00	0.00	0.00	53,269.17	
2017	1721310	YN1901000		25400	0000000	0000000	0425396		15,964.55	0.00	0.00	0.00	15,964.55	
2016	1721310	YN1901000		25400	0000000	0000000	0425391		0.00	-8.37	0.00	-8.37	-8.37	
2016	1721310	YN1901000		25400	0000000	0000000	0425396		1,101.44	0.00	0.00	0.00	1,101.44	
2016	1721310	YN1901000		25400	0000000	0000000	0425167		5,907.06	0.00	0.00	0.00	5,907.06	
2016	1721310	YN1901000		25400	0000000	0000000	0425343		40,645.55	0.00	0.00	0.00	40,645.55	
2015	1721310	YN1901000		25400	0000000	0000000	0425338		17,863.52	0.00	0.00	0.00	17,863.52	
2014	1721310	YN1901000		25499	0000000	0000000	0425163		3,500.00	0.00	0.00	0.00	3,500.00	

Financial Plan Number: 68

U.S. DEPARTMENT OF ENERGY  
DOE AFP Local Financial Plan Report  
Period Name: SEP-18  
PO Number: RL14788  
Fund Parent: ALL FUNDS  
Fiscal Year: 2018  
Reporting Entity:  
Allottee:  
Run Prior AFP Report?: N  
Report Run Type: PRELIMINARY  
Prior Financial Plan Run Code: RL14788-67 (27-SEP-2018 12:31:46)  
To Date:  
Report Output Type: BEARS VERSION  
Report Output: TEXT

Report Date: 28-SEP-18 16:05  
Page: 2 of 4

Rep Entity	Fund Code	Approp Year	Legacy Program B&R	Object Class	Local Use	Project	Legacy WFO	Order Number	Beginning Uncosted Obs	Previous	Change	Revised	Total Available
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422100 00922 2013 1721310 YN1901000 25499 0000000 0000000 0425163 3,595.24 0.00 0.00 0.00 3,595.24

Subtotal for Program Parent: C001129, YN1900000 3,110,119.95 9,936,468.62 3,400,000.00 13,336,468.62 16,446,588.57

Subtotal for Fund: 00922 3,110,119.95 9,936,468.62 3,400,000.00 13,336,468.62 16,446,588.57

01250	2018	1111549	EY520111A	25400	0000000	0001520	0000000		0.00	25,892,375.56	0.00	25,892,375.56	25,892,375.56
2017	1111549	EY520111A	25400	0000000	0001520	0000000		30,002,965.86	24,100,902.07	0.00	24,100,902.07	54,103,867.93	
2016	1111549	EY520111A	25400	0000000	0001520	0000000		0.00	27,073.53	0.00	27,073.53	27,073.53	
2015	1111549	EY520111A	25400	0000000	0001520	0000000		0.00	2.67	0.00	2.67	2.67	
2014	1111549	EY520111A	25400	0000000	0001520	0000000		0.00	12,201.88	0.00	12,201.88	12,201.88	
2018	1111551	EY5201120	25400	0000000	0001521	0000000		0.00	41,935,000.00	0.00	41,935,000.00	41,935,000.00	
2018	1111551	EY5201120	32002	0427218	0001521	0000000		0.00	0.02	0.00	0.02	0.02	
2017	1111551	EY5201120	25400	0000000	0001521	0000000		1,535,894.82	-1,535,894.82	0.00	-1,535,894.82	0.00	
2017	1111551	EY5201120	32002	0427218	0001521	0000000		629,669.90	-629,669.90	0.00	-629,669.90	0.00	
2016	1111551	EY5201120	32002	0427218	0001521	0000000		54.01	-54.03	0.00	-54.03	-0.02	
2018	1111552	EY520113A	32002	0427228	0001522	0000000		0.00	2,437.73	0.00	2,437.73	2,437.73	
2018	1111552	EY520113A	32001	0427207	0001522	0000000		0.00	10,000.00	0.00	10,000.00	10,000.00	
2018	1111552	EY520113A	25400	0421536	0001522	0000000		0.00	2,500,000.00	0.00	2,500,000.00	2,500,000.00	
2018	1111552	EY520113A	32002	0427239	0001522	0000000		0.00	290,000.00	0.00	290,000.00	290,000.00	
2018	1111552	EY520113A	31003	0421580	0001522	0000000		0.00	6,000,000.00	0.00	6,000,000.00	6,000,000.00	
2018	1111552	EY520113A	25400	0000000	0001522	0000000		0.00	133,684,459.26	0.00	133,684,459.26	133,684,459.26	
2018	1111552	EY520113A	32002	0421536	0001522	0000000		0.00	1,800,000.00	0.00	1,800,000.00	1,800,000.00	
2017	1111552	EY520113A	25400	0421536	0001522	0000000		467,521.85	-3,351,984.59	0.00	-3,351,984.59	-2,884,462.74	
2017	1111552	EY520113A	32001	0427207	0001522	0000000		2,443,681.05	-2,443,681.05	0.00	-2,443,681.05	0.00	
2017	1111552	EY520113A	32002	0427188	0001522	0000000		95,351.66	-95,351.66	0.00	-95,351.66	0.00	
2017	1111552	EY520113A	32002	0427228	0001522	0000000		152,495.62	-155,190.73	0.00	-155,190.73	-2,695.11	
2017	1111552	EY520113A	25400	0000000	0001522	0000000		7,359,960.09	-5,375,497.35	0.00	-5,375,497.35	1,984,462.74	
2017	1111552	EY520113A	32002	0427239	0001522	0000000		668,000.00	-668,000.00	0.00	-668,000.00	0.00	
2016	1111552	EY520113A	32002	0427188	0001522	0000000		9.11	-9.11	0.00	-9.11	0.00	
2014	1111552	EY520113A	25400	0000000	0001522	0000000		0.00	201.36	0.00	201.36	201.36	
2014	1111552	EY520113A	32001	0427207	0001522	0000000		0.00	-12,403.24	0.00	-12,403.24	-12,403.24	
2018	1111554	EY520130A	31002	0421581	0001524	0000000		0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	32002	0427221	0001524	0000000		0.00	366,474.77	0.00	366,474.77	366,474.77	
2018	1111554	EY520130A	31002	0421583	0001524	0000000		0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	32002	0427225	0001524	0000000		0.00	1,990,000.00	0.00	1,990,000.00	1,990,000.00	
2018	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	112,695,257.51	0.00	112,695,257.51	112,695,257.51	
2018	1111554	EY520130A	32002	0427243	0001524	0000000		0.00	500,000.00	0.00	500,000.00	500,000.00	
2018	1111554	EY520130A	32002	0427222	0001524	0000000		0.00	20,000.00	0.00	20,000.00	20,000.00	
2018	1111554	EY520130A	32002	0427224	0001524	0000000		0.00	457,500.00	0.00	457,500.00	457,500.00	
2018	1111554	EY520130A	31002	0421585	0001524	0000000		0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	31002	0421568	0001524	0000000		0.00	2,608,000.00	0.00	2,608,000.00	2,608,000.00	
2018	1111554	EY520130A	32002	0427249	0001524	0000000		0.00	550,000.00	0.00	550,000.00	550,000.00	
2018	1111554	EY520130A	32002	0427226	0001524	0000000		0.00	651,753.94	0.00	651,753.94	651,753.94	
2018	1111554	EY520130A	31002	0421584	0001524	0000000		0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	31002	0421582	0001524	0000000		0.00	200,000.00	0.00	200,000.00	200,000.00	
2018	1111554	EY520130A	32002	0427229	0001524	0000000		0.00	120,000.00	0.00	120,000.00	120,000.00	
2017	1111554	EY520130A	32002	0427229	0001524	0000000		665,324.04	-674,814.65	0.00	-674,814.65	-9,490.61	
2017	1111554	EY520130A	32002	0427217	0001524	0000000		501,042.36	-504,991.88	0.00	-504,991.88	-3,949.52	
2017	1111554	EY520130A	32002	0427224	0001524	0000000		655,998.77	-655,998.77	0.00	-655,998.77	0.00	
2017	1111554	EY520130A	32002	0427223	0001524	0000000		100,000.00	-100,000.00	0.00	-100,000.00	0.00	
2017	1111554	EY520130A	32002	0427197	0001524	0000000		445,943.62	-452,035.12	0.00	-452,035.12	-6,091.50	
2017	1111554	EY520130A	25400	0000000	0001524	0000000		5,360,093.86	-6,110,486.45	0.00	-6,110,486.45	-750,392.59	
2017	1111554	EY520130A	32002	0427222	0001524	0000000		79,536.21	-79,536.21	0.00	-79,536.21	0.00	
2017	1111554	EY520130A	32002	0427221	0001524	0000000		301,730.17	-301,730.17	0.00	-301,730.17	0.00	
2017	1111554	EY520130A	32002	0427226	0001524	0000000		340,946.44	-340,946.44	0.00	-340,946.44	0.00	
2017	1111554	EY520130A	32002	0427190	0001524	0000000		136,664.72	-136,664.72	0.00	-136,664.72	0.00	
2017	1111554	EY520130A	32002	0427196	0001524	0000000		62,174.93	-62,174.93	0.00	-62,174.93	0.00	
2017	1111554	EY520130A	32002	0427225	0001524	0000000		276,645.22	-276,645.22	0.00	-276,645.22	0.00	
2016	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	134,355.58	0.00	134,355.58	134,355.58	
2016	1111554	EY520130A	32002	0427217	0001524	0000000		20,074.09	-21,764.79	0.00	-21,764.79	-1,690.70	
2016	1111554	EY520130A	32002	0427221	0001524	0000000		0.00	-5,245.60	0.00	-5,245.60	-5,245.60	
2015	1111554	EY520130A	32002	0427190	0001524	0000000		2.67	-2.67	0.00	-2.67	0.00	
2015	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	35,728.09	0.00	35,728.09	35,728.09	
2014	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	70.38	0.00	70.38	70.38	
2013	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	2,492.08	0.00	2,492.08	2,492.08	
2011	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	14,390.84	0.00	14,390.84	14,390.84	
2009	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	541,010.31	0.00	541,010.31	541,010.31	
2006	1111554	EY520130A	25400	0000000	0001524	0000000		0.00	62,936.02	0.00	62,936.02	62,936.02	

Subtotal for Program Parent: C002856, EY5201000 52,301,781.07 334,013,849.50 0.00 334,013,849.50 386,315,630.57

U.S. DEPARTMENT OF ENERGY  
 DOE AFP Local Financial Plan Report Report Date: 28-SEP-18 16:05  
 Financial Plan Number: 68 Period Name: SEP-18 Page: 3of 4  
 PO Number: RL14788  
 Fund Parent: ALL FUNDS  
 Fiscal Year: 2018  
 Reporting Entity:  
 Allottee:  
 Run Prior AFP Report?: N  
 Report Run Type: PRELIMINARY  
 Prior Financial Plan Run Code: RL14788-67 (27-SEP-2018 12:31:46)  
 To Date:  
 Report Output Type: BEARS VERSION  
 Report Output: TEXT

Rep Entity	Fund Code	Approp Year	Legacy Program B&R	Object Class	Local Use	Project	Legacy WFO	Order Number	Beginning Uncosted Obs	Previous	Change	Revised	Total Available
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422100	01250	2018	1111556	EY5202400	25400	0000000	0004009	0000000	0.00	51,969,437.18	3,251,962.82	55,221,400.00	55,221,400.00
2018	1111556	EY5202400	31003	0000000	0004009	0000000			0.00	3,082,600.00	0.00	3,082,600.00	3,082,600.00
2017	1111556	EY5202400	25400	0000000	0004009	0000000			10,979,278.78	0.00	0.00	10,979,278.78	
2016	1111556	EY5202400	25400	0421371	0001525	0000000			1,815.01	-1,815.01	0.00	-1,815.01	0.00

Subtotal for Program Parent: C002857, EY5202000										40,106,260.11	170,662,018.99	3,455,825.42	174,117,844.41	214,224,104.52
2017	1111637	39EY52000PRN15D401000	32004	0421519	0001521	0000000		3,976,494.01	-997,612.28	0.00	-997,612.28	2,978,881.73		
2017	1111637	39EY52000PRN15D401000	32004	0000000	0001521	0000000		1,103,000.00	997,612.28	0.00	997,612.28	2,100,612.28		
2016	1111637	39EY52000PRN15D401000	32004	0421519	0001521	0000000		0.00	5,853,000.00	0.00	5,853,000.00	5,853,000.00		
2016	1111637	39EY52000PRN15D401000	32004	0000000	0001521	0000000		23,702,145.20	-5,853,000.00	0.00	-5,853,000.00	17,849,145.20		
Subtotal for Program Parent: C002965, 39EY52000										28,781,639.21	0.00	0.00	28,781,639.21	
2018	1111691	39EY52000PRN18D404000	32004	0421536	0001522	0000000		0.00	6,500,000.00	0.00	6,500,000.00	6,500,000.00		
Subtotal for Program Parent: C003103, 39EY52000										0.00	6,500,000.00	0.00	6,500,000.00	
Subtotal for Fund: 01250										121,189,680.39	511,175,868.49	3,455,825.42	514,631,693.91	635,821,374.30
01751	2018	1110958	EZ4042421	25400	0000000	0001527	0000000	0.00	2,240,000.00	0.00	2,240,000.00	2,240,000.00		
2017	1110958	EZ4042421	25400	0000000	0001527	0000000		1,784,284.36	0.00	0.00	0.00	1,784,284.36		
Subtotal for Program Parent: C002146, EZ4000000										1,784,284.36	2,240,000.00	0.00	2,240,000.00	4,024,284.36
Subtotal for Fund: 01751										1,784,284.36	2,240,000.00	0.00	2,240,000.00	4,024,284.36
Subtotal for Reporting Entity: 422100										126,173,580.69	523,854,372.79	6,855,825.42	530,710,198.21	656,883,778.90
Grand Total:										126,561,723.52	523,854,372.79	6,855,825.42	530,710,198.21	657,271,921.73

Agency Sub-Report

Agency: U.S. DEPARTMENT OF ENERGY  
 Financial Plan Number: 68  
 DOE AFP Local Financial Plan Report  
 Period Name: SEP-18  
 PO Number: RL14788  
 Fund Parent: ALL FUNDS  
 Fiscal Year: 2018  
 Reporting Entity:  
 Allottee:  
 Run Prior AFP Report?: N  
 Report Run Type: PRELIMINARY  
 Prior Financial Plan Run Code: RL14788-67 (27-SEP-2018 12:31:46)  
 To Date:  
 Report Output Type: BEARS VERSION  
 Report Output: TEXT

Report Date: 28-SEP-18 16:05  
 Page: 4 of 4

Rep Entity	Fund Code	Approp Year	Legacy Program B&R	Object Class	Local Use	Project	OCTADJ1-18 Legacy WFO Order Number	Beginning Uncosted Obs	Previous	Change	Revised	Total Available
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Agency Sub-Report

Agency	Obligation Change Amount
Work for Others Funds Associated with Federal Agencies:	0.00
Total DOE Funds:	3,455,825.42
Total Non-Appropriated Funds:	3,400,000.00
Grand Total:	6,855,825.42

TAS Sub-Report

DOE Funding: 089X0251  
 Reimbursable Funding:  
 \*\*\* End of Report \*\*\*

Fiscal Year	Fiscal Mon	Finplan Nu	Rpt Entity	Purchase CFund Code	Approp Ye	Program	Object Clas	Local Use	Project	WFO	Beginning	BA Previous	BA Change	BA Revised	Total Available	Finplan Note
2018	12	68	422100 RL14788	922	2018	1721310	25400	0	0	425466	-	8,071,522.00	3,400,000.00	11,471,522.00	11,471,522.00	
2018	12	68	422100 RL14788	1250	2018	1111556	25400	0	4009	0	-	51,969,437.18	3,251,962.82	55,221,400.00	55,221,400.00	
2018	12	68	422100 RL14788	1250	2018	1111557	25400	0	1526	0	-	113,592,834.00	203,862.60	113,796,696.60	113,796,696.60	
													6,855,825.42			

**U.S. Department of Energy  
INTER-ENTITY CONTRACTOR WORK ORDER**

<b>1. Work Order Number:</b> 383121  <b>Amendment Number:</b> 2	<b>2. Month/Year to be recorded:</b> <i>(for use in DOE-DOE work only)</i>  September 2018	
<b>Authorizer</b>		
<b>3. Authorizing Contractor:</b> Pacific Northwest National Laboratory		
<b>4. Authorizing Contractor OPI Code:</b> OR20	<b>5. Allotment Symbol:</b> OR-42-91	
<b>6. DOE Cognizant Authorizing Official:</b> Ryan Kilbury Telephone: (509) 372-4030 Fax: (509) 372-4037 E-Mail: ryan.kilbury@science.doe.gov		
<b>7. PNNL Funds Availability Authorization Official's Signature:</b> Farrah Taylor/ PNNL Funding Management 509-371-7799 <b>Farrah A Taylor</b> Farrah.Taylor@pnnl.gov <small>Digitally signed by Farrah A Taylor:          DN: cn=U.S. Government, ou=Department of Energy, ou=Pacific Northwest National Laboratory, c=US, email=Farrah.A.Taylor@pnnl.gov, serial=201809271450514700</small>		
<b>Authorizer's DOE Contracting Officer Signature: (Required for actions &gt;\$1M):</b> <i>PPG 9-28-18 Melanie P. Fletcher 9/28/18</i> <b>Melanie P. Fletcher, C.O.</b> U.S. Department of Energy		
<b>8. Scope of Work (attach additional sheets if needed):</b> This is an Inter-Entity/Contractor Work Order issued for services to be provided and are necessary and required in connection with Battelle Memorial Institute, Pacific Northwest Division's Government Contract DE-AC05-76RL01530 to operate the Pacific Northwest National Laboratory (PNNL) for the U.S. Department of Energy (DOE). Accounting for the cost of the services, equipment or materials will be made in accordance with practice and procedures required by the DOE Accounting Handbook unless other DOE instructions govern.  RTL Complex Project 2 - D4 Demo and Subsurface Remediation.  Mod 2 - Provides additional funds and extends the POP through December 31, 2018. FY18 - Authorization of additional \$3,000,000.00, FY19 - Authorization - \$400,000.00 The PNNL technical POC shall be Skip Kerschner 375-5345.		
<b>9. Period of Performance:</b> Upon CO signed acceptance - December 31, 2018		
<b>10. Billing Information:</b> Billing shall be monthly via DOE PAC and reference IWO# 383121		
<b>Address:</b> Pacific Northwest National Laboratory PO Box 999 MS J1-04 Richland WA 99354 <b>Attention:</b> Accounts Payable Tele: 509/371-7546 Fax 509/371-7551 Ref: IWO# 383121		
<b>Authority</b>	<b>Current Year</b>	<b>Cumulative</b>
Previous Total	\$ 8,071,522.00	\$ 8,071,522.00
Current Action	\$ 3,400,000.00	\$ 3,400,000.00
Revised Total	\$ 11,471,522.00	\$ 11,471,522.00
<b>Performer</b>		
<b>11. Performing Contractor:</b> DOE Richland Operations		
<b>12. Performing Contractor OPI Code:</b> RL90	<b>13. Allotment Symbol:</b> 34	
<b>14. Performers Cognizant Authorizing Official:</b> Jenise Connerly Telephone: 509-376-8362 E-Mail: Jenise.Connerly@rl.doe.gov		
<b>15. Performer's Authorizing Official Signature:</b>		
<b>Performer's Cognizant DOE Contracting Officer Signature: (Required for actions &gt;\$1M)</b> <i>Jenise C Connerly</i>		<b>Date:</b> 9-28-18

Overhead funded

WFO - 0425466

# STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
Subsurface Soil Remediation  
S740277-SOW-05 Rev 0  
October 2017



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## Introduction

Battelle, as the M&O contractor for the Pacific Northwest National Laboratory (PNNL), is requesting services for the demolition of the Research Technology Laboratory (RTL) Complex located on the PNNL campus at the NW corner of George Washington Way and 3rd Street in Richland, WA.

Per the DOE-Battelle Prime Contract for the Management and Operation of Pacific Northwest National Laboratory DE-AC05-76RL01830, Modification M1067, Section J, Appendix I, the RTL Complex is to be remediated via demolition by September 30, 2020. Acceleration of remediation and demolition has been mutually agreed upon by PNNL and the DOE Pacific Northwest Site Office (PNSO) with an end date of September 2018.

The Pacific Northwest National Laboratory will be referenced as PNNL and the CH2MHill Plateau Remediation Contractor (CHPRC) will be referenced as the D4 Contractor. The activities of deactivation, decontamination, decommissioning, and demolition will be referred to as D4.

## Background

- The Tri-Party Agreement Change Notice TPA-CN-0738 (signed September 6, 2016) added the 10 buildings associated with the Research Technology Laboratory to the "Removal Action Work Plan for the River Corridor General Decommissioning Activities". The buildings include RTL510, RTL520 (with associated vault), RTL524, RTL530, RTL540, RTL550, RTL560, RTL570, RTL580 and RTL590 and conex boxes. The D4 Contractor must implement its D4 work in compliance with the Research Technology Laboratory "Removal Action Work Plan for the River Corridor General Decommissioning Activities" referenced in this Statement of Work as the RAWP.

## RTL D4 Contractor Program Structure

The Pacific Northwest National Laboratory's overall program management of the RTL Complex disposition and release activities is discussed in the Battelle Facilities Restoration Program Management Plan Volume II (current revision). The D4 Contractor work for the RTL Complex Program supports two individual projects that are shown in Figure 1.

# STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
Subsurface Soil Remediation  
S740277-SOW-05 Rev 0  
October 2017

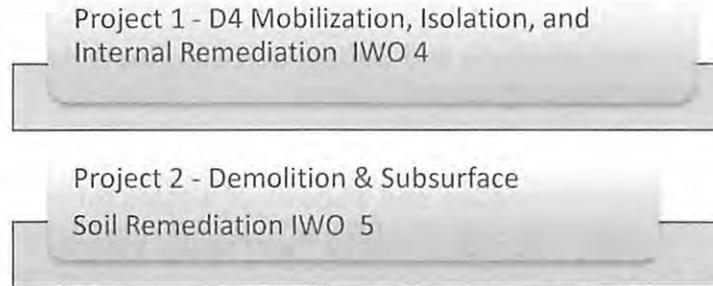


Figure 1 D4 Contractor Project Structure

This statement of work covers Project 2 (IWO 5) for the D4 Demolition and Subsurface Soil Remediation of the RTL Complex.

## STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
Subsurface Soil Remediation  
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### Scope

The Project will cover the Demolition and Subsurface Soil Remediation of the RTL Complex. It includes the following scope:

#### Demolition

- RAWP compliant demolition and disposal of wastes for the RTL510, RTL520, RTL524, RTL530, RTL540, RTL550, RTL560, RTL 570, RTL580, the tank vault, and RTL590 facilities (including equipment, systems and materials left in the facilities). This includes the removal of ground level slabs and the RTL520 basement. Tasks for the D4 Contractor to execute include the following.
  - Any boundary and other air monitoring that the D4 Contractor determines as necessary to support the D4 Contractor demolition operations and the related permits will need to be developed, installed and maintained and removed by the D4 Contractor.
  - Demolition of above and below grade structures to include removal of floor slab and foundation walls and footings.
  - Remove all support structures (chiller towers, brick walls, shrubs impacted by the D4 footprint, equipment, etc.).
  - During demolition activities debris and disturbed soils are to be contained or wet-down as precautions to prevent and mitigate fugitive emissions.
  - Rubble and building systems will be size reduced and loaded into suitable transport containers or truck and shipped to disposal facility. The D4 Contractor shall not leave demolition material behind other than clean soils for use as backfill.
  - Dispose of all wastes generated during the demolition project.
  - Potentially radioactive waste, radioactive contaminated waste and radioactive contaminated debris will be demolished, loaded and disposed of following all Department of Transportation, federal, state, and local requirements and in compliance with DOE Orders.

# STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
Subsurface Soil Remediation  
S740277-SOW-05 Rev 0  
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- The Contractor shall handle, treat, package, label, store, and ship solid waste (e.g., low-level, low-level mixed, TRU/TRU mixed wastes) from the facility in compliance with applicable waste acceptance criteria for the disposal facility, state, and Federal regulations for disposal at an approved facility.

## Subsurface Soil Remediation

- RAWP compliant excavation and disposal of contaminated soils under and around the RTL510, RTL520, RTL524, RTL530, RTL540, RTL550, RTL560, RTL570, RTL580, the tank vault, and RTL590 facilities (including equipment, systems and materials left in the facilities). This includes the removal of contaminated soils under, and adjacent to, the building slabs. Tasks for the D4 Contractor to execute include the following:
  - Potentially radioactive waste, radioactive contaminated waste and radioactive contaminated debris will be removed, loaded and disposed of following all Department of Transportation, federal, state, and local requirements and in compliance with DOE Orders.
  - Contaminated soils and vault rubble will be size reduced and loaded into suitable transport containers or truck and shipped to disposal facility. Piping and underground wiring encounter during soils removal actions will be size reduced and loaded into suitable transport containers or truck and shipped to disposal facility.
  - Soils excavation for RTL520 basement will maintain safe and stable slopes, or other approved means of preventing subsidence.
  - During subsurface remediation activities debris and disturbed soils are to be contained or wet-down as precautions to prevent and mitigate fugitive emissions.
  - The Contractor shall handle, treat, package, label, store, and ship solid waste (e.g., low-level, low-level mixed, TRU/TRU mixed wastes) from the facility in compliance with applicable waste acceptance criteria for the disposal facility, state, and Federal regulations for disposal at an approved facility.
- Any boundary and other air monitoring that the D4 Contractor determines as necessary to support the D4 Contractor subsurface and soils remediation operations and the related permits will need to be developed, installed and

## STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
Subsurface Soil Remediation  
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maintained and removed by the D4 Contractor.

- Potential soil contamination (radiological, chemical, etc.) may be present underneath or adjacent to the RTL520, the vault, and between the two where the service lines previously ran to and were capped under the RTL520 slab. Additionally, potential soil contamination (radiological, chemical, etc.) may be present underneath or adjacent to the RTL520 and RTL530 slabs. The D4 Contractor is to remove all contaminated soils in this area that are above the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2.
- Removal of the soils under and any contaminated soils around the edges of the RTL510, RTL520, RTL524, RTL530, RTL540, RTL550, RTL560, RTL 570, RTL580, the tank vault, and RTL590 facilities. Soil must be removed until the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2 for the RTL Complex are achieved.
- All exposed to surface pipeline and wire chase ways will be removed. Contaminated soils under and adjacent to that are above the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2 for the RTL Complex must be removed.
- Only a portion of the underground pipelines will be removed. The division of the pipelines that will be removed versus those that will stay are summarized as follows and are Shown in Figures 2a and 2b:
  - Pipelines that must be removed<sup>1</sup> are
    - Underground piping that is currently connected to the RTL Complex buildings that handled or could have been exposed to sanitary and process waste flows. This included the sanitary sewer lines connected to the building and the abandon pipes that are connected to that sanitary sewer line.
    - Underground utility piping that is in the area of soil removal for the RTL520/530/560 building. This includes the piping from the RTL520 to 560 and the pipelines (including natural gas, fire water and sanitary waterlines) just north of the RTL520 building and south of the vault.

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<sup>1</sup> The D4 Contractor to make sure they do not leave asbestos material behind in or around trenches where the piping was removed.

## STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
Subsurface Soil Remediation  
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- 
- The remaining portion of the radioactive waste pipeline to the waste tank vault.
  - Pipelines that are to remain include
    - Underground clean water utility piping with or without asbestos that are OUTSIDE the building soils excavation foot print. This includes the fire water supply line, the sanitary (potable) water supply lines, natural gas piping, galvanized water/irrigation piping, and abandoned PVC irrigation piping.
    - All the newly added irrigation piping.
    - Historically Abandoned Sanitary (potables) Water and Sanitary Sewer Pipelines.

**STATEMENT OF WORK- D4 PHASE**

CHPRC IWO for RTL Complex D4 Demolition &  
 Subsurface Soil Remediation  
 S740277-SOW-05 Rev 0  
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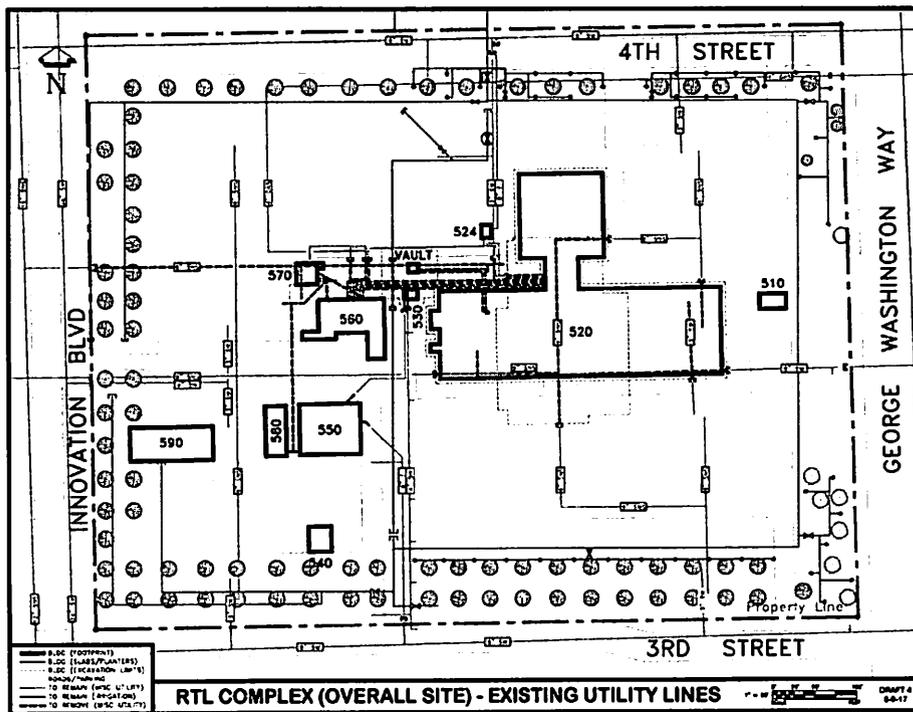


Figure 2a Pipelines that must be removed (dashed) and those that remain (solid lines)

**STATEMENT OF WORK- D4 PHASE**

CHPRC IWO for RTL Complex D4 Demolition &  
 Subsurface Soil Remediation  
 S740277-SOW-05 Rev 0  
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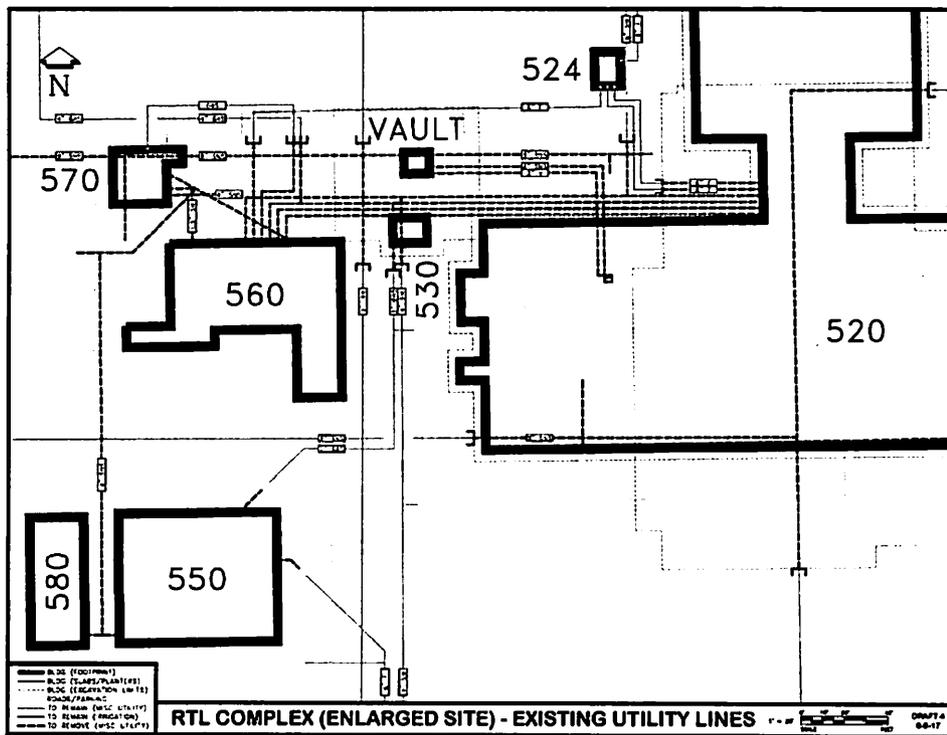


Figure 2b Detail of Pipelines near the RTL520 building that must be removed (dashed) and those that remain (solid lines)

## STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
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- Remove the soils above and any contaminated soils around the edges of the RTL560 to RTL520 hot/chilled water and utility pipelines. Remove and package the piping and asbestos materials. Soil under and adjacent to the pipelines must be removed until the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2 for the RTL Complex are achieved.
- Remove the radioactive waste pipelines that went to the tank vault that still remains under the RTL520 slab. Soils under and adjacent to the pipelines must be removed until the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2 for the RTL Complex are achieved.
- Remove the underground piping that is currently connected to the RTL Complex Buildings that handled or could have been exposed to sanitary and process waste flows. This included the sanitary sewer lines connected to the building and the abandon pipes that are connected to that sanitary line (see figure 2). The sewer pipes are made of Cement Asbestos Pipe. Remove the pipeline plus the bedding soil under the pipeline. Soil must be removed until the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2 for the RTL Complex are achieved.
- All contaminated soils in the RTL complex area<sup>2</sup> that is not already specified in the tasks above must be removed until the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2 for the RTL Complex are achieved.
- Dispose of all wastes generated during the project.
- The D4 Contractor will conduct site release surveys and sampling for Radioactive and MTCA constituents<sup>3</sup> in compliance with the *“Research Technology Laboratory (RTL) Disposition: Data Quality Objectives (DQOs)”* and the *“Research Technology Laboratory (RTL) Disposition: Sampling and Analysis*

<sup>2</sup> The soils that surround the pipelines that are not to be removed shall remain in place.

<sup>3</sup> This SOW assumes that up to 126 sample sets for the MTCA constituents in Table 2 and 126 sample sets for the radioactive constituents in Table 1 will be necessary to comply with the document expected to be named S740277-PLAN-14 *“Research Technology Laboratory (RTL) Disposition: Sampling and Analysis Plan”*.

## STATEMENT OF WORK- D4 PHASE

CHPRC IWO for RTL Complex D4 Demolition &  
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*Plan*<sup>7</sup>. This work included sampling, sample analysis, reporting and coordination of work to be conducted by a PNNL-funded Independent Verification (IV) Contractor. Sample collection, sample analysis, reporting and IV coordination costs should be part of the estimated value of this SOW.

### Closeout Activities

- Decontaminate demolition equipment, survey and release the decontamination areas, and demobilize all staff, equipment, wastes and materials from the RTL Complex. All areas used for waste packaging, equipment/material decontamination, and all other D4 Contractor support (trailers....) must be cleaned to meet the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2. Provide the final survey documentation. (Note that protective fencing is to remain in place and NOT be removed.)
- Final project closeout will include site closeout surveys.
- Final project closeout will include providing PNNL with all the post demolition summary reports listed in the deliverables section and all required document preparation and submittal.

The scope also includes the general project support that the D4 Contractor must provide to Project 2. In addition to routine project management and administrative support, there are some specific activities that must be done by the D4 Contractor that include<sup>4</sup>:

- CHPRC shall read and comply with PNNL's Research Technology Laboratory Complex Deactivation, Decontamination, Decommissioning, & Demolition Communications & Stakeholder Plan (current version).
- The D4 Contractor Project Manager will read and understand the Memorandum of Agreement (MOA) between PNSO and Washington State Department of Archaeology and Historic Preservation provided by PNNL prior to turnover. Key actions from the Memorandum of Agreement will be included in the Job Safety Analysis read by all workers prior to working during the D4

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<sup>4</sup> It is important to note that these activities are common with the same requirements in Project 1 - D4 Mobilization, Isolation, and Internal Remediation IWO 4. Those efforts that have been completed in Project 1 - D4 Mobilization, Isolation, and Internal Remediation IWO 4 do not need to be repeated for this SOW and their implementation can continue from their use in IWO4. The estimate should not include costs for repeating work completed in IWO 4.

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Phase. Additional monitoring requirements that come from the Cultural Resources Review<sup>5</sup> include:

- Monitoring Plan - A Section 106 Review has been conducted for the Remediation of Radiological Contamination at the RTL complex at PNNL. Based on the results of the research conducted for this review, full-time cultural resources monitoring by cultural resources staff is recommended for the ground-disturbing activities within the Area of Potential Effect (APE) that will take place on the west side of the APE along Q Avenue. Monitoring recommendations apply to excavation, removal of slab on-grade, or removal of paved surfaces.
- Pre- Project Activities - To ensure monitoring is conducted as recommended, the cultural resources monitor (monitor) must be notified in a timely manner prior to the start of project-related activities. Cultural resources staff must be given sufficient time to notify the State Historic Preservation Officer (SHPO), area tribes, and interested parties and allow for participation by Tribal members.

Prior to initiation of project activities, all personnel will be given a cultural resources awareness briefing to ensure they understand the roles and responsibilities of the monitor, the limitations placed on the work to be conducted, and the procedures to follow in the event of a discovery.

- Monitoring Procedures - Based on the proximity to known resources, ground-disturbing activities will be monitored full-time, by cultural resources staff. The monitor will be given adequate opportunity to inspect all portions of the work area or disturbed surface for the presence of cultural materials. The monitor will be present to inspect cleared ground and excavated areas for signs of previously undiscovered archaeological resources. The monitor will maintain monitoring notes describing the field conditions, type of equipment being used, progress, and activities, and record any finds of archaeological material for each day that he or she is present. The monitor will keep daily field notes and take photographs. Photographic documentation of all monitored activities will include photographs before, during, and after ground-disturbing activities.
- Inadvertent Discoveries – The MOA contains the inadvertent discovery plan.

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<sup>5</sup> Cultural Resources Review of the Remediation of Radiological Contamination at the Research Technology Laboratory (RTL) Complex at the Pacific Northwest National Laboratory (PNNL), Benton County, Washington (HCRC#2015-PNSO-003), By: David Harvey (Northwest Cultural Resources Services), Doug McFarland MS RPA, Joy Ferry (CH2M HILL)

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- The D4 Contractor will provide the cultural resources monitor (monitor) when it is doing ground disturbing activities. The monitor will have, at a minimum, an undergraduate degree in anthropology, archaeology, historic archaeology, or a related field and at least one year of professional archaeological experience or equivalent specialized training. The monitor's actions and activities will be reviewed on a daily basis by a cultural resource professional meeting the Secretary of Interior standards for professional archaeologists. PNNL must concur with that the selected monitor and the cultural resource professional complies with the SHPO MOA training and experience requirements.
- The D4 Contractor Project Manager will read and understand the Cultural and Biological Resources Management Plan provided by PNNL prior to turnover. Key actions from the plan will be included in the Job Safety Analysis read by all workers prior to working during the D4 Phase.
- The D4 Contractor must implement the site security and incident response contingency plan for responses to the finding of unexpected radiological materials or chemicals during the D4 Phase.<sup>6</sup>
- The D4 Contractor must implement the Waste Transportation Plan which includes the selected haul route and trucks after an evaluation of alternative truck sizes and alternative haul routes (in compliance with Revised Code of Washington State (RCW 46.44.041).
- The D4 Contractor must implement the Building/RTL Complex Emergency Response Plan for PNNL concurrence which includes the early notification of the PNNL "Single Point of Contact" at 509-375-2400 and follow the occurrence reporting protocol as defined in Appendix A.<sup>7</sup>

### Authorized limits for Radiological Release

Table 1 presents proposed Authorized Limits for the unrestricted soil release of the RTL Complex as approved by the Department of Energy letter of January, 12 2017 "CONTRACT NO. DE-AC05-76RL01830 - APPROVAL OF AUTHORIZED LIMITS FOR RADIOLOGICAL CLEARANCE OF THE RESEARCH TECHNOLOGY LABORATORY (RTL) SITE".

<sup>6</sup> The D4 Contractor can use the HASP to implement the site security and incident response plan elements.

<sup>7</sup> The D4 Contractor can use the HASP to implement the Building/RTL Complex Emergency Response Plan elements.

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Table 1. Authorized Limits for Radiological Clearance of the Research Technology Laboratory Site

Radionuclide	Authorized Limit (pCi/g)
$^{60}\text{Co}$	3.7
$^{238}\text{Pu}$	800
$^{239/240}\text{Pu}$	740
$^{241}\text{Pu}$	30,000
$^{234}\text{U}$	700 <sup>3</sup>
$^{235}\text{U}$	60
$^{238}\text{U}$	280

### Non-radiological unrestricted release requirements

For non-radiological cleanup standards of the RTL Complex, the RAWP for General Hanford Decommissioning (DOE/RL-2010-34) specifies the applicable or relevant and appropriate requirements (ARAR) to be met for this project. However, Battelle and PNNL have chosen to adopt the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels for this project. These are found in Table 2.

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**Table 2. Exposure Scenario Basis for the RTL Authorized Limits**

Analyte Type	Non-radiological COPC	Release Limit (in mg/kg) <sup>a</sup>	Background Concentration (in mg/kg)
PCB	Aroclor 1016	5.6 <sup>c</sup>	e
	Aroclor 1254	1.6 <sup>c</sup>	e
	Aroclor 1260	0.5 <sup>b</sup>	e
	Diesel Range	2,000 <sup>b</sup>	e
TPH	Organics (DRO)	100 <sup>b</sup>	e
	Gasoline Range	100 <sup>b</sup>	e
	Organics (GRO)	100 <sup>b</sup>	e
Pesticides	4,4'-DDD	4.17 <sup>c</sup>	e
	4,4'-DDE	2.94 <sup>c</sup>	e
	4,4'-DDT	2.94 <sup>c</sup>	e
	Dieldrin	0.0625 <sup>c</sup>	e
VOC	Methylene Chloride	480 <sup>b</sup>	e
	Arsenic, inorganic	20 <sup>d</sup>	6.47 <sup>f</sup>
	Beryllium	160 <sup>b</sup>	1.51 <sup>f</sup>
Metals	Cadmium	80 <sup>b</sup>	0.56 <sup>g</sup>
	Chromium (III)	120,000 <sup>b</sup>	18.5 <sup>f</sup>
	Lead	250 <sup>d</sup>	10.2 <sup>f</sup>
	Mercury	200 <sup>d</sup>	0.01 <sup>g</sup>
	Zinc	24,000 <sup>b</sup>	67.8 <sup>f</sup>

<sup>a</sup> Selected the lowest value in the MTCA Cleanup Levels and Risk Calculation (CLARC) table (MTCA 2015) based on Method B for direct contact (exposure to hazardous substances through ingestion and/or dermal contact), or Method A (if no Method B value is available).

<sup>b</sup> CLARC table, Method B, Cancer, Direct Contact

<sup>c</sup> CLARC table, Method B, Noncancer, Direct Contact

<sup>d</sup> CLARC table, Method A, Unrestricted Land Use

<sup>e</sup> No value available for natural background concentration, therefore, substituting the practical quantitation limit (PQL) for the analyte method (WAC 173-340). The PQL is the lowest concentration that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability during routine laboratory operating conditions, using department approved methods. WAC 173-340-707 identifies the conditions for selecting the PQL, e.g., the PQL is no greater than ten times the method detection limit.

<sup>f</sup> DOE, 2001

<sup>g</sup> Hoover, 2012

## CONTRACT DELIVERABLES<sup>8</sup>

<sup>8</sup> All dates in this section are subject to modification after the D4 Contractor schedule is provided as a deliverable to

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### The D4 Contractor deliverables include:

- Complete the Demolition work scope in this Statement of Work (excluding equipment decontamination, demobilization, and closeout paperwork). Due 6/15/2018.
- The D4 Contractor will provide the Facility Status Change Form required in section 2.6 of the RAWP to PNNL. Due 8/30/17
- Complete the Subsurface Soil Remediation work scope in this Statement of Work. The D4 Contractor must interface closely with the PNNL-funded Independent Verification Contractors (IVC) as remediation is not complete until the IVC has verified that release limits have been met. Due 8/30/2018.
- Complete all Closeout Activities in this Statement of Work. Due 9/15/2018
- Deliver base line WBS, costs, and schedules for the D4 Contractor Projects 30 days after this IWO is issued. Baseline changes must be filed within 10 days of any baseline effecting request.
- Provide a letter that CHPRC has sufficient resources and capabilities to execute this work within 30 day of receipt of this IWO.
- Provide, on a graded-approach, monthly Earned Value Management Reports and weekly schedule status updates with a summary of IWO work status. At a minimum, the monthly Earned Value Management Reports should address the current status, major accomplishments for the period, cost and schedule performance, variance analysis, significant issues and remedial actions and a schedule analysis including any forecasted deviations from the agreed to milestone dates.
- Demolition of the first non-rad building<sup>9</sup> must complete by November 21, 2017.
- Provide copies of all permits issued to the D4 Contractor in support of Project 2. Due within 15 days of the permit being issued.

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the IWO work conducted under S740277-SOW-03.

<sup>9</sup> The non-rad buildings include RTL510, RTL540, RTL550, RTL560, RTL570, RTL580 and RTL590.

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- If developed under CHPRC procedures and processes, provide copies of the Waste Disposal and Waste Transportation Plans to PNNL within 10 days of issue (unless they have already been provided under Project 1 and not revised).
- Provide simple As-Built Utility drawings (or redline markups on existing drawings) showing locations and final disposition of all existing utility “demarcations” within the property boundary. This deliverable can also be met by working directly with PNNL Engineering and by the D4 Contractor providing the VOEHI package to PNNL. If any utilities are “abandoned” and/or “buried” in place these also need documented. Due 8/30/18.
- Final post equipment decontamination area surveys. Due 8/30/18.
- Provide all radiological and Industrial Hygiene surveys completed during the performance of the project. Due 8/30/18.
- Provide PNNL with copies of all waste management manifest and waste disposal records related to Projects 1 and 2. Due 8/30/18
- All wastes, equipment, materials, and staff used in the D4 Contractor Projects are removed from the RTL Complex. Due 8/30/18.
- Final RTL Complex “Property Return” walk down and checklist with the D4 Management Contractor Project Manager and the PNNL Program Manager.

## PERIOD OF PERFORMANCE

The original anticipated period of performance is from the date of award through December 31, 2018.

Any additional materials or information required to complete the tasks not covered can be requested through Michael Minette at [Michael.Minette@PNNL.gov](mailto:Michael.Minette@PNNL.gov) or via phone on (509) 375-5367.

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### GENERAL TERMS AND CONDITIONS

This project will develop and deliver the Baseline WBS, costs and schedules for the IWO scope, will support transition and turnover activities, and will conduct walkthroughs for planning and turnover acceptance activities.

The D4 Contractor is to supply all staff, equipment, sample analysis, subcontracting, materials (including waste packaging) to complete the tasks in this project.

The scope of this IWO must be conducted in compliance with the "Removal Action Work Plan (RAWP) for River Corridor General Decommissioning Activities" (DOE/RL-2010-34 Rev.2) and this Statement of Work.

Exceptions or clarifications to the elements in the RAWP for the RTL Complex D4 activities:

- Facility Demolition/Debris Removal (Section 2.5 of the RAWP)
  - All below grade structures will be removed. All piping will be addressed in accordance with this Statement of Work.
  - Soils will be removed until the complex meets the Authorized Limits specified below in this Statement of Work or the Department of Energy's accepted Authorized Limits.
- Site Completion (Section 2.6 of the RAWP)
  - Final acceptance for work completion under this Statement of Work of the site D4 work must be received from PNNL.
- Equipment Decontamination (Section 2.7 of the RAWP)
  - Decontamination areas must be sampled and shown to comply with the Authorized Limits specified in this Statement of Work or the Department of Energy's accepted Authorized Limits that comply with DOE Order 458.1.

The D4 Contractor is to maintain operational control of the RTL Complex. During all D4 activities, the D4 Contractor will operate under its own work control, risk management, and safety programs. The D4 Contractor's programs and processes will control the D4 Phase activities. Their programs must meet the RAWP requirements in section 3 Safety and Health Management Controls; section 4 Environmental Management and Controls; section 5 Project Administration; it's Department of Energy Prime Contract, and State and Federal Laws/regulations.

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Although work will be performed under the D4 Contractor's work controls and processes, project monitoring and oversight will be conducted by PNNL and DOE PNSO. Attachment B provides a summary of oversight roles and responsibilities.

The D4 Contractor will provide and maintain a Waste Management Program and processes that comply with applicable State and Federal laws and regulations, DOE Orders and Guidelines, and must comply with the Waste Acceptance requirements of the applicable waste disposal facilities used during the performance of this work. The D4 Contractor shall handle, treat, package, label, store, and ship solid waste (e.g., low-level, low-level mixed, TRU/TRU mixed wastes) from the facility in compliance with applicable Waste Acceptance criteria for the disposal facility, state, and Federal regulations for disposal at an approved facility.

The security controls for the RTL Complex will transfer to the D4 Contractor at turnover. This includes but is not limited to badging, access control, and implementation of DOE guidelines/requirements for security. Industrial security considerations for the D4 Contractor are likely to include fencing that is reasonable to keep unauthorized people out of the construction and operation zones.

Additionally, the D4 Contractor must comply with the following already issued regulatory permits:

- The Radioactive Air Emissions License (RAEL), Emission Unit (EU) specific to allow for the demolition and removal of the J-RTL Complex was received on August 25, 2016 under permit, Demolition and Removal of the J-RTL Complex (NOC 1023, EU 1439, RAEL-005), under approval AIR 16-818.

During the implementation of the Radioactive Air Emissions License (RAEL), Emission Unit (EU) specific to allow for the demolition and removal of the RTL Complex under the Demolition and Removal of the J-RTL Complex (NOC 1023, EU 1439, RAEL-005), the following conditions apply:

1. Conduct demolition and removal of the RTL Complex area, in particular, for locations that have potential radioactive fugitive emissions including basement areas, associated grounds, an underground tank vault and buildings (510, 520, 524, 530, 540, 550, 560, 570, 580, and 590).

The following activities for demolition and removal of the RTL Complex are:

- Contamination abatement activities (e.g., contaminated equipment and ductwork and fixed contamination removal) involving various types of radioactive material, including mixed activation products (MAPs), mixed fission products (MFPs), and actinides.

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- Excavation by mechanical or manual methods to support complex stabilization, removal, and deactivation. Mechanical and manual methods may include, but are not limited to, material handlers, loaders, trucks, excavators, shovels, hoes, picks, and axes.
  - Removal activities including demolition and removal of buildings and structures
  - Removal of environmental residual radioactivity associated with past operations
  - Sampling activities
  - Soil backfill with the original material removed or with brought in 'clean' soil
  - Waste management
2. Health physics/technician coverage shall be provided during demolition and excavation activities where potential contamination is known or anticipated to exist.
  3. Excavated soils and/or demolition rubble will be stockpiled in appropriately posted area(s) adjacent to excavation locations.
  4. Appropriate controls such as water, fixatives, covers, containment tents, or windscreens shall be applied, if needed, as determined by the health physics personnel. Soil and/or demolition rubble stockpiles that are inactive for greater than 24 hours shall require dust control measures.
  5. All demolition and soil excavation operations will cease and dust control measures will be implemented when sustained wind conditions reach or exceed 20 miles per hour.
  6. If field surveys during demolition and excavation identify localized areas of contamination greater than 5,000 dpm/100 cm<sup>2</sup> beta/gamma and 100 dpm/100 cm<sup>2</sup> alpha, additional surveys shall be conducted on the perimeter of the 'hot spot' to verify the localized nature, ensuring that the overall average contamination limits are not exceeded.
  7. After leveling, the average soil surface radiological total contamination levels shall be verified less than 5,000 dpm/100 cm<sup>2</sup> beta/gamma and less than 100 dpm/100 cm<sup>2</sup> alpha. If contamination is present above these levels, soil shall be removed and containerized for disposal or covered or fixed to provide containment of the contamination.
  8. As appropriate, before starting work on removing/isolating utilities, piping, structures and underground material; removable contamination in affected

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- area(s) shall be reduced to ALARA. Measures such as expandable foam, fixatives, or glovebags shall also be used as necessary to help reduce contamination.
9. To demonstrate the periodic confirmatory measurements, radiological surveys shall be provided to PNNL.
  10. If the license requirements above cannot be met, the PNNL RTL Complex Program Manager must be immediately notified.
- o The Tri-Party Agreement Change Notice TPA-CN-0738 (signed September 6, 2016) added the 10 building associated with the Research Technology Laboratory to the *“Removal Action Work Plan for the River Corridor General Decommissioning Activities”*. The buildings include RTL510, RTL520, RTL524, RTL530, RTL540, RTL550, RTL560, RTL570, RTL580 and RTL590. The D4 Contractor must implement its D4 Phase in compliance with the Research Technology Laboratory *“Removal Action Work Plan for the River Corridor General Decommissioning Activities”* referenced in this Statement of Work as the RAWP. The D4 Contractor must comply with the *“Removal Action Work Plan (RAWP) for River Corridor General Decommissioning Activities”* (DOE/RL-2010-34 Rev.2) including project reporting and controls requirements.

PNNL reserves the right to concurrently monitor PNSO permit AIR 16-818.

The D4 Contractor must obtain all necessary permits that are not already provided to implement the work in this statement of work.

Additionally, the Benton Clean Air Agency (BCAA) Regulation 1, Article 4 General Standards for Particulate Matter requires a written *“Dust Control Plan”* be maintained and readily available for any destabilization project. The D4 Contractor is responsible to develop the Dust Control Plan. Also, before the demolition begins, BCAA must receive a notification that is made online at their website where it says Submit a Soil Destabilization Notification: <http://www.bentoncleanair.org/> .

Be aware that according to the BCAA definitions: A *“Destabilization project”* means construction, repair, or demolition of any building or road, or landscaping work on a property, which destabilizes the soil and thus has potential for fugitive dust emissions.

Dust Control Plan Requirements include:

- a. Dust control plans must identify management practices and operational procedures which will effectively control fugitive dust emissions.

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- b. Dust control plans must contain the following information:
- A detailed map or drawing of the site;
  - A description of the water source to be made available to the site, if any;
  - A description of preventive dust control measures to be implemented, specific to each area or process; and
  - A description of contingency measures to be implemented in the event any of the preventive dust control measures become ineffective.
- c. For this SOW the D4 Contractor must implement effective dust control measures outlined in dust control plans.
- d. For this SOW the D4 Contractor must provide the Agency with a copy of the plan within two business days of it being requested.

### Special Conditions

There are special systems located at the RTL Complex that need to be operational during and after the D4 Contractor activities. The D4 Contractor will need to make special provision for the following systems during the execution of this IWO:

- The trees that border 3rd Street, George Washington Way, 4th Street, and Innovation Avenue must be preserved. PNNL will operate and maintain the perimeter irrigation system.
- There are public apartments and buildings south of 3rd street and to the west of Innovation Boulevard that are outside the control of PNNL and the D4 Contractor. Public activities are expected to continue during and after the D4 Contractor project activities at the RTL Complex. Noisy outdoor demolition tasks will have work hour controls to limit the impact on the public apartments (e.g. 7:30 am to 6:30pm with weekend work and Hanford Friday off work allowed).
- The transformer north of RTL570 in the field is owned by the City of Richland. It will be operational during and after the D4 Contractor project activities. All actions related to the transformer must be coordinated with the City of Richland.
- The Hanford Site's monitoring well 699-S37-E14 is located northeast of the junction of Innovation and 3rd Street, and Innovation Boulevard needs to be maintained as operational during and after the D4 Contractor activities. The D4 Contractor should determine if other wells are present during planning. The July

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24, 2016 reading from monitoring well 699-S37-E14 was 51.82 feet to groundwater. The maximum uranium reading was observed in 1995 at 2 micrograms per liter.

The RTL Complex D4 project activities are a non-time critical “Surplus Facility Removal Action” being conducted in accordance with requirements documented in the “Removal Action Work Plan (RAWP) for River Corridor General Decommissioning Activities” and DOE policy. Where there are unanticipated conflicts between requirements in the RAWP, permits, and the SOW, the D4 Contractor shall immediately notify PNNL.

The D4 Contractor should be aware of current project planning assumptions, dependencies, and constraints. These are subject to change and do not constitute direction beyond those specified in this statement of work or other contracting documents.

Assumptions not already covered in this Statement of Work:

- a. The PNNL direction for this Battelle Facilities Remediation Program work is being conducted per the *DOE-Battelle Prime Contract for the Management and Operation of Pacific Northwest National Laboratory DE-AC05-76RL01830, Modification M1067 Part III – List of Documents, Exhibits, Section J, Appendix I* which states: “... RTL520, RTL530, and RTL570 will be demolished prior to September 30, 2020. The Parties also agree RTL and RTL Outbuilding Demolition is scheduled to be completed by no later than FY2020.

**FOR THIS STATEMENT OF WORK<sup>10</sup> ALL D4 CONTRACTOR ACTIVITIES MUST BE COMPLETED BY December 31, 2018.**

- b. The RTL Complex consists of 10 buildings: 520, 510, 524, 530, 540, 550, 560, 570, 580, and 590, located south of the main PNNL campus on the southeastern corner of property owned by BMI in Richland, Washington. The RTL Complex is bounded to the south by properties owned by the City of Richland, Washington State University, and other commercial and private entities.

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<sup>10</sup> Including the Independent Verification Review (IVR) reporting, As-Built Drawings, Data Quality Objectives and sampling results and close out paperwork.

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- c. The future use for the areas surrounding the RTL is currently identified as “Business Research Park” and “General Commercial” by the City of Richland and Benton County, respectively. In support of the project objectives, there will be no post-remediation restrictions on land use (i.e., the site will be suitable for unrestricted use). Unrestricted use means the site is available for any use or disposition (e.g., sale, transfer, demolition, waste disposal) without regulatory restriction, permits, or licenses that are associated with potential radiological contamination of the facility.

### Constraints not already covered in the Statement of Work

- a. Should the Environmental Restoration Disposal Facility not be allowed to accept the RTL Complex Demolition waste, there would be a major constraint to the RTL Complex demolition.
- b. PNNL may be subject to unforeseen federal policy changes, lack of available federal funding, or change of DOE contractual direction.
- c. Other potential project constraints may arise from public opposition, labor work stoppage events and other unforeseen force majeure conditions.

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## **Appendix A – RTL Program Oversight**

Although work will be performed under the D4 Contractor's work controls and processes, project monitoring and oversight will be conducted by PNNL and DOE PNSO. Key elements to the oversight are the following:

PNNL will provide a dedicated onsite project coordinator for interface and management with CHPRC's onsite Project Manager or Field Supervisor, and general oversight of worker safety, public safety, and PNNL/PNSO permit compliance. The PNNL coordinator will:

- Attend POD during onsite work
- Provide Intermittent Coverage for low-risk activities
- Provide Full Time Coverage for high risk activities (e.g. facility demolition and isolation of energized systems)
- Coordinate additional PNNL engagement/oversight expertise as needed (e.g. WS&H)
- Exercise of Stop Work Authority, if required
- Report to the PNNL Program Manager any issues, concerns or events arising from this oversight role
- Report to the PSNO Facility Representative any issues, concerns or events arising from this oversight role

Under the Contractor Assurance model, DOE-PNSO will rely primarily upon PNNL engagement and oversight; accordingly PNSO will heavily leverage PNNL's dedicated onsite oversight. The PNSO Facility Representative coverage will include:

- Interfaces with onsite PNNL coordinator and onsite CHPRC leads (generally weekly)
- Engagement in all events during the onsite work
- Other coverage as needed (which may include plan-of-the-day, occurrence reporting, critiques, etc.)
- Exercise of Stop Work Authority, if required

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Both PNNL and PNSO, short of actual Stop Work, will use safety “pause” authority with D4 Contractor On-Site Manager to work out minor issues. The PNNL Program Manager and D4 Contractor On-site Manager will resolve issues in compliance with the standards established in the IWO and each Contractor’s existing procedures applicable to their respective DOE prime contracts.

Off-Normal event reporting in compliance with DOE O 232.2, *Occurrence Reporting and Processing of Operations Information* and DOE Non-Compliance Tracking System (NTS) reporting will be made by the D4 Contractor for all work planned and conducted under CHPRC management and work control processes. Off-Normal event reporting in compliance with DOE O 232.2 and DOE NTS reporting will be made by PNNL when the work was planned and conducted under PNNL management and work control processes.

- All PNNL or CHPRC ORPS or NTS events will be reported directly to the assigned PNSO Facility Representative in accordance with DOE O 232.2 requirements and will be tracked under SC ORPS reporting.
- CHPRC events will also be reported to DOE-RL (Deputy, AMSE and Director, Operations Oversight Division) by both CHPRC and the PNSO Facility Representative. CHPRC should use their existing notification system (PRCNS) and the PNSO Facility Representative may utilize a phone call, text message, or email.
- The PNSO Facility Representative will have the lead for review and closure of all ORPS or NTS reporting related to this project, in coordination with DOE-RL as appropriate.

RL will provide the PNSO Facility Representative and SMEs support as needed, and as available, for the following kinds of RTL program activities:

- Mentoring on D&D requirements and expectations and consultation regarding approved CHPRC processes and programs;
- Periodic walkthroughs during the CHPRC activities and assistance regarding CHPRC ORPS reportable events.

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# **1 RTL Complex D4 Demolition & Subsurface Soil Remediation IWO5 Estimate**

## **1.1 Introduction**

Per the DOE-Battelle Prime Contract for the Management and Operation of PNNL DE-AC05-76RL01830, Modification M1025, Section J, Appendix J, the Research Technology Laboratory (RTL) Complex is to be remediated via demolition by September 30, 2020, with negotiable acceleration if direct funding is obtained prior to fiscal year (FY) 2018.

Pacific Northwest National Laboratory (PNNL) requested CH2M HILL Plateau Remediation Company (CHPRC) to provide a cost and schedule in support of demolition and subsurface soil remediation of the RTL Complex. PNNL provided a D4 Phase statement of work (SOW), Revision 0, dated October 2017, "S740277-SOW-05 R0 - IWO CHRPC Demolition and Subsurface Remediation," via e-mail from L. J. Oukrop, PNNL, to A. F. Meyer, CHPRC, dated October 16, 2017, and an Inter-Entity Work Order (IWO) Number 314051 to CHPRC to support this effort. The D4 Phase SOW outlines 2 individual projects: Project 1 – D4 Mobilization, Isolation, and Internal Remediation IWO 4 and Project 2 – Demolition and Subsurface Soil Remediation IWO 5.

This Estimate and Narrative supports Project 2 – D4 Demolition and Subsurface Soil Remediation IWO 5.

CHPRC subject matter experts (SMEs) and PNNL project staff held a series of planning meetings and site walk-throughs for orientation and familiarization and to convey known information and data applicable to the RTL structures. Original building drawings (circa 1965) were provided along with a draft project transition plan.

CHPRC developed a cost and schedule using CHPRC methods and processes for a safe and compliant decontamination and decommissioning (D&D) preparation of the RTL complex.

## **1.2 Scope of Work**

The RTL Complex is located south of the main PNNL campus on the southeastern corner of property owned by Battelle Memorial Institute in Richland, Washington, and consists of the following 10 buildings:

- RTL510 – Support Building
- RTL520 – Main Building Laboratory and offices
- RTL524 – Fire Riser Building
- RTL530 – Radioactive Material Storage Building
- RTL540 – Paper Shredder Facility
- RTL550 – Technical Services Building
- RTL560 – Utility Building
- RTL570 – Autoclave Center
- RTL580 – Craft Shop Building
- RTL590 – Warehouse

The RTL Complex is bounded to the south by properties owned by the City of Richland, Washington State University, and other commercial and private entities. The future use of the areas surrounding the

RTL complex is currently identified as “Business Research Park” and “General Commercial” by the City of Richland.

Included within the statement of work IWO 5, the following deliverables required by PNNL are:

- Complete demolition of all above-grade structures and below-grade basement and storage vaults including support structures, equipment, systems, and materials left in the facilities.
- Rubble and building systems will be size reduced and loaded into suitable transport containers or trucked and shipped to a disposal facility. All exposed to surface pipeline and wire chase ways will be removed. The D4 Contractor shall not leave demolition material behind, other than clean soils for use as backfill.
- All contaminated soils in the RTL Complex area must be removed until the Radiological Authorized Limits shown in Table 1 and the Washington State Model Toxics Control Act (MTCA) unrestricted cleanup levels shown in Table 2 for the RTL Complex are achieved.
- The D4 Contractor will conduct site release surveys and sampling for Radioactive and MTCA constituents in compliance with the “Research Technology Laboratory (RTL) Disposition: Data Quality Objectives (DQOs)” and the “Research Technology Laboratory (RTL) Disposition: Sampling and Analysis Plan.” This work included sampling, sample analysis, reporting, and coordination of work to be conducted by a PNNL-funded Independent Verification (IV) Contractor. Sample collection, sample analysis, reporting, and IV coordination costs should be part of the estimated value of this SOW.
- Final project closeout will include site closeout soils samples, post demolition summary reports, final cultural report, and as-built drawings.
- All areas used for waste packaging, equipment/material decontamination, and all other D4 Contractor support (trailers, etc.) will be cleaned and removed from the site.
- Protective fencing is to remain in place and not be removed by the D4 Contractor.

### **1.3 Estimate Development**

The following activities represent how the cost and schedule were assembled by CHPRC to implement section 1.2 Scope of Work. This proposal covers Project 2 (IWO 5) for the D4 demolition and subsurface Soil Remediation of the RTL Complex.

#### **1.3.1 RTL IWO 5 - Project Management**

This activity provides for the resources for project management for the demolition of the RTL facility buildings as listed above. The D&D Project Management resources include the overall project management resource necessary to include oversight, Project Controls, maintenance necessary, permitting, work package maintenance, and maintenance of other required documents including, but not limited to, the Sampling and Analysis Plan (SAP), Health and Safety Plan (HASP), Beryllium sample plans, etc.

Methodology for the work under this activity is for project management, engineering, and planning personnel to maintain documentation necessary for safe and compliant execution of fieldwork. Project management personnel will use appropriate requirements, tools, and techniques to initiate, plan, execute, control, and close out the work.

The D&D Project Management includes Engineering, Safety, Radiological Control, Industrial Hygienists, Work Package Planners, Project Integration, Quality Assurance, Environmental, Procurement, and Waste Management necessary to initiate demolition activities for the RTL facility buildings. This task includes interfacing with PNNL, Pacific Northwest Site Office (PNSO), City of Richland, surrounding public interests, Environmental Restoration Disposal Facility (ERDF), regulatory approvals, subcontractor arrangements, and necessary engineering for demolition.

The resources in this account crosscut multiple aspects of the demolition project. At any given time, these resources may be performing planning activities, resolving issues, providing briefings, or even monitoring field conditions.

The Project Management activity has been broken into three activities:

- Develop Work Package – Building Demolition
- RTL Project Management Support – Demolition
- RTL Project Management Support – Project Closeout

CHPRC will also provide the following general project support to successfully complete Project 2. In addition to routine project management and administrative support, the following specific deliverables will be provided by CHPRC:

- CHPRC will continue to comply with PNNL's Research Technology Laboratory Complex Deactivation, Decontamination, Decommissioning, & Demolition Communications & Stakeholder Plan, Revision 0, dated January 2017.
- The CHPRC Project Manager will read and understand the Memorandum of Agreement between the PNSO and Washington State Department of Archaeology and Historic Preservation provided by PNNL prior to turnover. Key actions from the Memorandum of Agreement will be included in the Job Safety Analysis read by all workers prior to working during the D4 Phase.
- The CHPRC Project Manager will read and understand the Cultural and Biological Resources Management Plan provided by PNNL prior to turnover. Key actions from the plan will be included in the Job Safety Analysis read by all workers prior to working during the D4 Phase.

CHPRC will continue to provide Project Management support initiated in IWO 4 for the continuation of the following:

- CHPRC will continue to provide PNNL a copy for review of the CHPRC Quality Assurance program documents.
- CHPRC will continue to maintain the Building/RTL Complex Emergency Response Plan prepared under IWO 4.
- CHPRC will continue to maintain a Waste Transportation Plan developed under IWO 4.
- CHPRC will continue to provide monthly Earned Value Management Reports and weekly schedule status updates with a summary of IWO work status.

### **1.3.2 RTL IWO 5 - Material/Equipment**

This activity includes materials and equipment required for demolition activities, temporary power preventive maintenance, and sampling.

The materials and equipment included in this activity include all of the personal protective equipment (PPE), miscellaneous tools, fuel, and rental charges for the heavy equipment required for the demolition of the 10 RTL buildings.

The preventive maintenance for the temporary power includes the direct labor required to complete the monthly and quarterly performance measures.

This activity also contains the sampling subcontract to provide analytical laboratory evidence that the Record of Decision (ROD) Remedial Action Goals (RAGs) and objectives have been met. This activity provides the resources to complete RTL Demolition Verification Sampling and Documentation.

### **1.3.3 RTL IWO 5 – Demolition & Sub-Surface Soil Remediation**

The building demolition activities contain the costs for the demolition crew and equipment to perform open-air structural demolition of the RTL structures. The estimate is prepared on a per building basis. The demolition will consist of standard demolition techniques consisting of the use of an excavator with a multi-processor, shear, and/or bucket and thumb attachments. Sub-surface soil remediation activities at the 520 building include the excavation of soil to a depth of no more than 25 feet below finish floor (first level). Dust suppression methods such as water spray/misting will be used during demolition to control the potential for radioactive contamination release. As structural demolition progresses, surgical removal of the existing pressure vessel in the East Lab area will be performed. Radioactive demolition will be performed with focused radiological controls to minimize the potential for radioactive contamination release.

During demolition, the crew will size, sort, and package the debris to be disposed of at ERDF. Waste disposal activities also include the staging and prepping of shipping containers, establishing the travel routes and staging areas, sealing of the containers, surveying and relocating the container to the queue area, and the final transportation of the container to ERDF.

Tanks and vessels below grade and above grade will be characterized and verified empty. Asbestos-covered tanks or vessels will have the asbestos covering removed prior to disposition. The method for removal will be to process and demolish the tanks with the building structure and/or remove the tanks with a crane, load them on to a transport vehicle, and then ship to ERDF, where they will be grout-filled and buried.

### **1.3.4 RTL IWO 5 - Demobilization/Closure**

Demobilization from the site will include the removal of all temporary power, office trailers, restroom/shower trailers, heavy equipment, and other facilities brought to the site to complete the building demolition and excavation activities. Final project closeout will include providing PNNL with all the post demolition summary reports listed in the deliverables section of the SOW-05 and all required document preparation and submittals.

## **1.4 Assumptions**

- Existing government-owned demolition equipment assigned to CHPRC will be available and can be used at the PNNL RTL facility site. All necessary rental equipment is available throughout the project. This proposal assumes that Hanford Atomic Metal Trades Council (HAMTC) Plant Forces will perform activities per the plant forces work review process.
- Discovered waste will be contained within the contaminants of concern.
- 300 Area parking area west of the 300 Area fenceline will be acceptable for use as the ERDF waste container queue.

- All work will be done under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as authorized by the River Corridor General Decommissioning Removal Action Work Plan (RAWP).
- Start of daily field demolition activities will begin at 7:30 a.m. Monday through Thursday with Friday and weekend work allowed.
- The Environmental Protection Agency will agree that Category 1 and 2 asbestos-containing material that is not removed before or during Project 1 may be left in place during demolition per the RAWP.
- Since the work is being conducted under a CERCLA removal action, CHPRC will not be required to file a Notice of Intent for asbestos abatement or building demolition with the Benton Clean Air Authority or the Washington State Department of Ecology.
- Work will be performed in accordance with CHPRC's Radiation Protection Program, and no license will be required for handling radioactive materials from this project.
- Mitigation actions (security rounds, fencing, and signs) will keep trespassers out of the demolition site.
- Qualified and trained resources are readily available to support CHPRC, General Conditions Contractors, and their subcontractors with safe and compliant project delivery.
- Normal weather conditions are experienced during demolition and offsite transportation activities.
- Workers are trained in equipment operation, radiological control procedures (ALARA), and response to events. Processes and procedures identify safe equipment operation and control of radiological/hazardous materials. Workers are encouraged to use their stop work authority if they believe a work environment or job evolution is unsafe.
- Mission Support Alliance, Inc. (MSA) will be able to provide a cultural monitor for below grade demolition without impact.
- PNNL is responsible for updating drawings for all as-built changes.
- Hand drawn as-built sketches from CHPRC field personnel to PNNL for drawing updates are considered an acceptable form of media.
- Estimated tonnage will not exceed the quantities identified in the estimate.
- All RTL Building demolition waste streams (except buildings 530/Vault, 520, and an adjacent pipe trench between the two buildings) can be removed and transported for disposal using ERDF Blue DOT cans.
- It is assumed transportation resources and ERDF will be able to handle the increased volume of material associated with the RTL Complex demolition without schedule impact.

## **1.5 Exclusions**

- Excavation and removal of contamination plumes from under any of the RTL buildings (no more than 25 feet below the 520 building main level finish floor), adjacent side slope areas, and 1 foot below the piping to be removed.
- Areas of remaining transferable contamination will be sealed with fixative.
- Respiratory protection to perform the work. It is assumed that no hard-to-detect radionuclides will be encountered. Any additional costs due to delays in PNNL and regulators' review and/or approval of documents.
- Any demolition work associated with transformer north of building 570. Transformer to remain active per SOW.
- Allowance for DOE Richland Operations Office oversight or control of funding.

- Work delays caused by breeding, nesting, endangered, or threatened flora or fauna.
- Migratory bird costs are excluded. PNNL has instituted and will continue to operate a bird discouragement program to prevent nesting on/near the buildings that are to be demolished prior to mobilization. If demolition is performed during nesting season, there is a risk of work delays if a migratory bird nest with eggs or young is present.
- Well 699-S37-E14 will not be decommissioned or altered during the site remediation work.
- Installing, operating, or maintaining traffic control, signing, flagmen, or special traffic lighting on George Washington Way, Third, Fourth, or Innovation Boulevard related to the remediation work is not included.
- The current PNNL sewer sampling and monitoring station will not be removed during this remediation project. The operation of the sampler and maintaining the required permits will belong to PNNL.
- Any asbestos abatement activities above ground.
- Work associated with IWO 5 will not require a Nuclear Safety review and/or oversight.
- Estimate excludes extreme weather impacts beyond two Hanford road condition events (late start, early release, or cancelation). Proposal is priced considering “normal” weather impacts based on historical averages.
- PNNL to provide 24-hour site security of the site perimeter fencing.
- The Cultural and Biological Resources Management Plan and the Cultural Resources Review of the Remediation of Radiological Contamination at the RTL Complex at the PNNL, Benton County, Washington (HCRC#2015-PNSO-003) (an Official Use Only document), does not impose any requirements on CHPRC that would result in delays or actions beyond those routinely imposed on similar projects. It is further assumed that no historic artifacts will need to be retrieved and/or managed by CHPRC during performance of Project 2 work.
- Remediation of unexpected chemicals/residue beyond defined boundaries.
- Industrial wastewater permit and that the isolation of the sanitary sewer from the City of Richland has taken place within Project 1.
- CHPRC will not have any requirements from the Stakeholder Plan.
- Any backfill of layback or basement and/or excavations.
- Additional equipment rental and decontamination costs due to non-release because of contaminated equipment lab or survey results.

## **1.6 Basis of Estimate**

A combination of existing baseline building demolition estimates, crews, and current SME knowledge was used to create the estimate for demolition of the RTL structures. The assembly outputs were reviewed by SMEs and senior managers in a series of walk downs and discussions. Small adjustments to crew sizes and existing baseline durations were made based on specific facility conditions and expected efficiencies in execution.

Due to current facility radiological conditions, the planning team utilized SME knowledge, facility drawings, pictures, and diagrams to discuss the required removal of the structure, interferences, demolition methods, and techniques to gain an appreciation for the varying complexity of the demolition tasks. During these discussions, the planning team documented the estimated task durations (in shifts), sampling requirements, materials, equipment, and applicable crew resources required for the demolition of each building. The durations of each task were used to develop a P6 Schedule. The durations and schedule were reviewed by SMEs and D&D managers with knowledge of previous demolition estimates,

recent demolition actual costs, and expected facility conditions. Finalized durations and crew sizes were then reviewed by CHPRC's D&D senior manager.

This estimate reflects the application of an established crew of resources, composed of supervisory and craft resources, to a series of task durations (shifts) that result in the required hours estimated for the demolition preparation of the RTL buildings and its components.

The quantity and specific resources reflected in the estimate for the proposed demolition preparation tasks were designated by the SME through application of experience and knowledge of the effort required to perform demolition activities. In cases where the tasks to be performed required a special skill or assignment by jurisdiction to a particular craft, the assignment of resources (riggers, equipment operators, boilermakers, etc.) was made as a supplement to the core crew established by the SMEs.

The Sage Estimating outputs, including crew size and makeup, were validated during meetings and discussions with CHPRC D&D project managers and SMEs. Crew sizes, materials, PPE usage, and equipment needs were also reviewed for the demolition activities.

#### **1.6.1 Estimate Base Year**

The base year for this estimate is FY2018.

#### **1.6.2 Direct Labor**

Direct labor resources and hour quantities were determined by the planning team and SMEs. Once established, the crew resources were entered into the Sage estimating system. Rates were automatically applied by Sage to ensure current fiscal year pricing and specific resource codes for crew resources then multiplied by the activities duration to determine labor hours.

The following provides specific activity basis:

#### **RTL IWO 5 - Project Management**

This activity includes direct labor resources and materials for the Work Package Development, Project Management Support, and Required Documentation. To satisfy CHPRC requirements, a qualified Environmental Compliance Officer (ECO) will be required to approve work packages and to perform other functions that are required to be performed by an ECO. However, much of the environmental support can be provided by other environmental staff or via contracted environmental support. For purposes of this estimate, the resource code of S020 will be used to estimate all environmental support. It is further presumed that all environmental support costs will be planned in project management accounts. Sage report notes depict resources, full-time equivalents (FTEs) required, and durations as identified in the P6 Schedule activity.

#### **RTL IWO 5 – Demolition & Sub-Surface Soil Remediation**

This activity includes direct labor resources for the demolition of the RTL buildings and the removal of all demolition debris. Crew sizes and required labor resources were determined by the project planning team based on SME judgment and past building demolition projects completed at the Hanford Site. Durations were also determined by the project planning team and are assumed to be the same as in the current project schedule. Sage report notes depict resources, FTEs required, and durations as identified in the P6 Schedule activity.

#### **1.6.3 Subcontracted Labor**

Subcontracted labor is planned to support the work contained in this proposal. The subcontracted labor includes a waste specialist to provide planning and sampling support to the preparation activities.

#### **1.6.4 Subcontract Purchase Order (21)**

Purchase order subcontracts are planned to support the work contained in this proposal. The subcontracts include crane services and installation of the perimeter fencing. This also includes the subcontracted labor resources to perform as Environmental Engineer.

#### **1.6.5 Sample Subcontracts (2A)**

Sampling Subcontracts provides for the laboratory analysis of the closeout samples. Materials consist of the sample collection material, vendor cut sheets are provided to demonstrate pricing, and the quantity of 126 are based on the number of samples anticipated to be required by the SAP.

#### **1.6.6 Subcontract Usage Base Services (UBS)**

Subcontracted UBS resources and hour quantities were determined by the planning team as part of the work crews based upon current HAMTC jurisdictional requirements. Heavy Equipment Operators, Teamsters, and Crane Operator resources are required to be obtained from the MSA Contractor. The MSA cultural reviewer's efforts will be limited to the site's west side (includes 590 building) demolition of slab, black top, utility conduit/sewer/water piping, and soil removal. These resources are subject to MSA Direct Labor Adder and General and Administrative rate adders. The cost for equipment fuel usage is also included. CH2M HILL will provide Environmental Engineering on-site support.

#### **1.6.7 Material & Equipment**

Costs for materials and equipment required for the completion of the demolition of all of the RTL buildings. A Consolidated Material List was assembled detailing the materials required, quantities, and current unit pricing. During demobilization, demolition equipment will remain on site until both lab samples and surveys are complete and the equipment is released for transport.

## 2 ACRONYMS

AACEi	the Association for the Advancement of Cost Engineering International
BOE	Basis of Estimate
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CHPRC	CH2M HILL Plateau Remediation Company
COC	Contaminants of Concern
DOE	Department of Energy
D&D	Decontamination & Decommissioning
D4	Deactivation, Decontamination, Decommissioning and Demolition
ECO	Environmental Compliance Officer
ERDF	Environmental Restoration Disposal Facility
EVMS	Earned Value Management System
FTE	Full-time Equivalent
FY	Fiscal Year
HAMTC	Hanford Atomic Metal Trades Council
HASP	Health and Safety Plan
HEPA	High Efficiency Particulate Air
HVAC	Heating, Ventilation, and Air Conditioning
IWO	Inter-Entity Work Order
MOA	Memorandum of Agreement
MSA	Mission Support Alliance
PCB	Polychlorinated Biphenyl
PFWR	Plant Forces Work Review
PNNL	Pacific Northwest National Laboratory
PNSO	DOE Pacific Northwest Site Office
RAWP	Removal Action Work Plan
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RL	DOE Richland Operations Office
RTL	Research Technology Laboratory
SAP	Sampling and Analysis Plan
SME	Subject Matter Expert
SOW	Statement of Work
UIC	Underground Injection Control
VOHEI	Verification of Hazardous Electrical Isolation
WBS	Work Breakdown Structure

**FEE PAYMENT SCHEDULE**  
**PNNL RTL Statement of Work S740277-SOW-05**  
**October 26, 2017**

The full fixed fee of \$500,000 will be paid to CH2M HILL Plateau Remediation Company (CHPRC) based on the Research Technology Laboratory (RTL) Complex being demolished and the property returned to PNNL on September 15, 2018. The completion date will be established on the day when D4 demolition tasks as defined in Statement of Work S740277-SOW-05 have been completed.

If the tasks defined in the Statement of Work S740277-SOW-05 dated October 2017 are completed before September 15, 2018, the full fixed fee of \$500,000 plus \$10,000 will be paid based on the demolition and property return of the RTL Complex. If the tasks defined in the Statement of Work S740277-SOW-05 are completed after September 15, 2018, the full fixed fee of \$500,000 less \$10,000 will be paid based on the demolition and property return of the RTL.

If the tasks defined in Statement of Work S740277-SOW-05 dated October 2017 are completed based on the RTL Complex being demolished and property returned on or before September 15, 2018 and costs are below the approved baseline of \$7,671,518 less waste disposal costs of \$2,087,547, as defined in CHPRC's proposal, then in addition to the established fixed fee of \$500,000, an additional fee amount based on 15 percent/\$1.00 saved will be paid. The \$1.00 saved amount will apply to the incentivized budget of \$5,583,971. The \$1.00 saved amount will be considered the difference between the baseline cost less baseline waste disposal costs and the actual costs less actual waste disposal costs.

This fee payment schedule is contingent upon the work being able to be executed consistent with the assumptions and exclusions documented in CHPRC's proposal. If unforeseen conditions are encountered during the performance of this work, those conditions will be analyzed and addressed under a separate change for cost and fee impacts. If those changed conditions impact this fee payment schedule, then this schedule will be adjusted accordingly.

CHPRC will draw down 80 percent of the total fixed fee on a monthly basis for 11 months (November 2017 through September 2018) (\$36,364/month) and then based on performance will draw the delta based on the above.

Sum of FYTD AMT		
RL WBS HNF	RESOURCE CATEGORY	Total
200.01.01.03.23	10	\$ 513,248.53
	21	\$ 15,183.96
	22	\$ 320,725.50
	24	\$ 56,376.91
	28	\$ 240.00
	2A	\$ 15,517.74
	3D	\$ 1,824,785.00
	71	\$ 400,004.00
	7D	\$ 1,259,113.46
	C010	\$ 1,072.36
	C020	\$ 22,152.70
	C081	\$ 118,501.76
	C091	\$ 31,965.73
	C121	\$ 14,665.97
	CH	\$ 2,898.39
	E010	\$ 681.03
	E020	\$ 1,190.37
	E040	\$ 293.53
	E100	\$ 11,354.79
	E120	\$ 12,038.04
	FR	\$ 8,626.94
	G020	\$ 1,019.50
	G032	\$ 1,306.71
	M010	\$ 178,082.75
	M020	\$ 425,367.41
	M021	\$ 10,218.63
	M030	\$ 86,085.08
	M040	\$ 2,971.03
	P030	\$ 45.54
	P070	\$ 29,484.90
	P073	\$ 91.58
	P080	\$ 69,420.62
	P090	\$ 125,510.57
	P110	\$ 684.24
	P140	\$ 93,773.82
	P170	\$ 13,775.40
	R051	\$ 7,627.21
	R052	\$ 476,612.14
	S010	\$ 4,692.55
	S020	\$ 6,811.90
T050	\$ 392,761.08	
T060	\$ 2,337.84	
T070	\$ 8,644.43	
X3	\$ 293.35	
X6	\$ 7,530.43	
XA	\$ 638,679.81	
XE	\$ 296,926.57	
XF	\$ 1,023,834.63	
XS	\$ 24,111.24	
Z030	\$ (17,275.94)	
200.01.01.03.23 Total		\$ 8,542,061.73

Grand Total	\$ 8,542,061.73
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Pending Cost Corrections

--Pentek Order	\$ (87,966.00)
--Fleet Corrections	\$ (227,445.40)
--Liners	\$ (111,130.50)
--G&A	\$ (82,151.96)

ERDF Costs	\$ 3,697,171.98
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Total FY2018 Costs	\$ 11,730,539.85
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FY19 Q1

Lease Costs	\$ 15,324.00
Demobilization	\$ 195,441.63
Sampling Subcontract	\$ 170,674.56
Sample Evaluation	\$ 47,565.00
Management Labor	\$ 168,744.90
Subtotal	\$ 597,750.09
G&A @19.26	\$ 115,126.67
FY19 Q1 Total Cost	\$ 712,876.76

Total RTL Demolition Cost	\$ 12,443,416.61
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Current Authorized Amount	\$ 8,071,522.00
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DELTA	\$ 4,371,894.61
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Task	P6 Act ID	Description	Takeoff Quantity	Labor Cost/Unit	Labor Rate Table	Labor Amount	Sub Price	Sub Amt	Other Price	Other Amount	Total Amount	COCS	Notes
<b>PRC - Budget Planning</b>													
W05.5.02		RTL IWO 5 - Project Management											
	RTL-DEMO-SOIL	RTL Complx - Confirm Sample Results (Except 520)											
		Other Engineers	150.00 hr	122.51 /hr	FY18 Direct Labor RD	18,376.50					18,376.50	130-CPN-REG	
		Chemists	150.00 hr	114.00 /hr	FY18 Direct Labor RD	17,100.00					17,100.00	010-CPN-REG	
		Laboratory Technicians	150.00 hr	80.50 /hr	FY18 Direct Labor RD	12,075.00					12,075.00	080-CPN-REG	
	RTL-PMS 604 - Project Management Support - Project Closeout (23 Days)												
		Env Engineers (Environmental Team) (1.0 FTE)	230.00 hr	117.88 /hr	FY18 Direct Labor RD	27,112.40					27,112.40	020-CPN-REG	
		Env Engineers	20.00 hr	117.88 /hr	FY18 Direct Labor RD	2,362.00					2,362.00	020-CPN-REG	
		First Line Supervisors (Nat Con Super) (1 FTE)	230.00 hr	104.21 /hr	FY18 Direct Labor RD	23,968.30					23,968.30	010-CPN-REG	
		First Line Supervisors (1.0 FTE)	230.00 hr	104.21 /hr	FY18 Direct Labor RD	23,968.30					23,968.30	010-CPN-REG	
		Project and Program Managers (1.0 FTE)	180.00 hr	137.00 /hr	FY18 Direct Labor RD	24,670.00					24,670.00	030-CPN-REG	
		Buyer/Procurement/Contracting	80.00 hr	86.09 /hr	FY18 Direct Labor RD	6,887.20					6,887.20	030-CPN-REG	
		Planner (0.5 FTE)	40.00 hr	87.31 /hr	FY18 Direct Labor RD	3,504.40					3,504.40	070-CPN-REG	
		Health Physicists (1.0 FTE)	230.00 hr	113.73 /hr	FY18 Direct Labor RD	26,157.90					26,157.90	080-CPN-REG	
		Industrial Hygienists (1.0 FTE)	230.00 hr	100.78 /hr	FY18 Direct Labor RD	23,174.00					23,174.00	060-CPN-REG	
		Waste Management Spec (1.0 FTE)	80.00 hr	86.74 /hr	FY18 Direct Labor RD	6,939.20					6,939.20	170-CPN-REG	
W05.5.03		RTL IWO 5 - Material/Equipment/Maintenance											
	RTL-MAT-001	RTL Sampling Subcontract	120.00 EA		FY18 Direct Labor RD		EA	1,364.56	170.075		170,075.00	1-21	
	RTL-MAT-005	DEL Lab Sampling Costs											
		Trailer 24x60 (1518781)	3.00 Mo		FY18 Direct Labor RD		Mo	1,367.00	4.101	5,498.00		1-21	Pacific Mobile Structures Quote 114347 (Monthly Rate \$1367.00) Back Up File Name: Office Trailer Quote 114347
		Trailer 24x60 (0412009)	3.00 Mo		FY18 Direct Labor RD		Mo	1,367.00	4.101	5,498.00		1-21	Pacific Mobile Structures Quote 114347 (Monthly Rate \$1367.00) Back Up File Name: Office Trailer Quote 114347
		Trailer 10x60 (000596)	3.00 Mo		FY18 Direct Labor RD		Mo	2,374.00	7.122	8,486.00		1-21	Pacific Mobile Structures Quote 114347 (Monthly Rate \$2,374.00) Back Up File Name: Office Trailer Quote 114347
W05.5.05		RTL IWO 5 - Demobilization/Closure											
	RTL-DEMOB-001	RTL Demobilization (16 Days)											
		Subcontract PO (21) LS (Office Trailer Removal)	1.00 LS		FY18 Direct Labor RD		LS	1,750.00	1.750		1,750.00	1-21	
		Capitains (1.0 FTE)	180.00 hr	77.58 /hr	FY18 Direct Labor RD	14,124.00					14,124.00	010-CPN-REG	
		Electricians (2.0 FTE)	180.00 hr	83.00 /hr	FY18 Direct Labor RD	15,260.00					15,260.00	020-CPN-REG	
		First Line Supervisors (Electrical) (1.0 FTE)	80.00 hr	104.21 /hr	FY18 Direct Labor RD	8,336.80					8,336.80	010-CPN-REG	
		First Line Supervisors (1.0 FTE)	150.00 hr	104.21 /hr	FY18 Direct Labor RD	15,631.50					15,631.50	010-CPN-REG	
		Nuclear Prod Process Oper (D&O) (3.0 FTE)	480.00 hr	53.77 /hr	FY18 Direct Labor RD	25,809.60					25,809.60	030-CPN-REG	
		Health Physics Technicians (2.0 FTE)	320.00 hr	70.59 /hr	FY18 Direct Labor RD	22,588.80					22,588.80	050-CPN-REG	
		MSA Light Vehicle Driver (4.0 FTE)	80.00 hr	91.33 /hr	FY18 Direct Labor RD	7,306.40					7,306.40	XX	
		MSA Heavy Equipment Operator (1.0 FTE)	80.00 hr	109.72 /hr	FY18 Direct Labor RD	8,777.52					8,777.52	XX	
		CHC-OPER MSA Fuel with Delivery and GAA	1,322.56 GAL		FY18 Direct Labor RD		GAL	5.48	7.368		7,347.53	XX	MSA Fuel \$3.28 / Gal + MSA Delivery \$1.87 / Gal + \$5.15 / Gal + MSA GAA 1.000 = \$5.48 / Gal
		MSA Vehicle & Equipment Machine (0.5 FTE)	80.00 hr	201.29 /hr	FY18 Direct Labor RD	16,103.20					16,103.20	XX	

	As Proposed	
Transportation	Forecast	Estimated Actuals
Tons	21684.3	42516.07
Rate	26.77	26.77
Cost	580,488.71	1,138,155.19
G&A	111,802.13	219,208.69
Burdened Cost	692,290.84	1,357,363.88

	Forecast	Estimated Actuals
Disposal		
Tons	21684.3	42288.59
Rate	69.50	69.50
Cost	1,507,058.85	2,939,057.01
G&A	290,259.53	566,062.38
Burdened Cost	1,797,318.38	3,505,119.38

Total Cost 2,489,609.22 4,862,483.27

Delta due to Increased RTL tonnage 2,372,874.05  
Delta due to rate true up 321,733.03  
Total Increased cost 2,694,607.08

RTL Paid to Date 1,824,785.01  
Addnl ERDF Cost 3,697,171.98

	Year End True Up	
Transportation	Forecast	Actuals
Tons	21684.3	42516.07
Rate	29.77	29.77
Cost	645,541.61	1,265,703.40
G&A	124,331.31	243,774.48
Burdened Cost	769,872.93	1,509,477.88

	Forecast	Actuals
Disposal		
Tons	21684.3	42288.59
Rate	79.56	79.56
Cost	1,725,202.91	3,364,480.22
G&A	332,274.08	647,998.89
Burdened Cost	2,057,476.99	4,012,479.11

Total Cost 2,827,349.91 5,521,956.99

2,694,607.08

5,521,957  
- 2,489,609  
-----  
3,032,348      RPG

1721310  
SEP-18

WFO Description	AFF String	ApYr	Fund	Sum of ITD Obs	Sum of ITD Cost	Sum of Uncosted	Sum of Unpaid
RL90.RL14788.OR20.383121	00922.2018.34.422100.25400.1721310.0000000.0425466.0000000	2018	00922	8,071,522.00	7,098,487.10	973,034.90	973,034.90
				<b>8,071,522.00</b>	<b>7,098,487.10</b>	<b>973,034.90</b>	<b>973,034.90</b>

**From:** DOE-PAC System  
**To:** [^DOEPAC](#); [Dove, Debra L](#); [Yager, Timothy L](#); [Sittman, Michelle R](#)  
**Subject:** DOE-PAC Notice - 383121 - Type: Authorization Mod  
**Date:** Friday, September 28, 2018 12:34:59 PM

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**DOE-PAC SYSTEM**  
**(FEDERAL / INTEGRATED CONTRACTOR MODULE)**  
**WORK AUTHORIZATION MODIFICATION**

Authorizing Office: (OR20) - BAT MEM INST PACIF NW LAB  
Authorizing PO: 383121  
Mod Amount: \$3,400,000.00  
Description: Modification 2 provides additional funds and extends the POP.  
Date / Time: 9/28/2018 3:34:51 PM  
Entered By: farrah.taylor@pnnl.gov

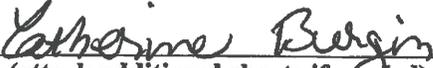
This information, along with supporting documentation, can be accessed by logging into the DOE-PAC system at <https://doepacs.doe.gov>

**Technical Support:**

Genie Parish - 865.241.0301  
John Murmann - 865.576.3114  
Joe Sitver (865) 576-8099  
Email: [doepacsupport@hq.doe.gov](mailto:doepacsupport@hq.doe.gov)

Attachment  
**U.S. Department of Energy**  
**INTER-ENTITY WORK ORDER**

WFO 0425 508

<b>1. Work Order Number:</b> M1WLFRG18K1  <b>Amendment Number:</b> Mod 02	<b>2. Month/Year to be recorded:</b> (For Use in DOE-DOE Work Only)  August 2018
<b>Authorizer</b>	
<b>3. Authorizing Contractor:</b> Oak Ridge Office	
<b>4. Authorizing Contractor OPI Code:</b> OR90	<b>5. Allotment Symbol:</b>
<b>6. Cognizant Contracting Office Rep:</b>	
Telephone:	
<b>7. Authorizer's Cognizant Budget Analyst Signature:</b>	
 <span style="float: right;">Date: 9/26/2018</span>	
<b>8. Scope of Work (attach additional sheets if needed):</b>	
Review of the Environmental Management Disposal Facility (EMDF) DOE Order 435 Documentation  Subject Matter Experts (SMEs) in hydrology/geology and radionuclide fate/transport are needed to review the Environmental Management Disposal Facility (EMDF) DOE Order 435 documentation. This review will include evaluation of the Performance Assessment and Composite Analysis and supporting documentation developed for the EMDF (a proposed low-level waste disposal facility), in terms of completeness, thoroughness and technical viability, and to determine if the conclusions are valid and acceptable as required in the <i>Disposal Authorization Statement and Tank Closure Documentation</i> (DAS&TC) Technical Standard. Scope will include reviewing materials, attending presentations, providing comments and recommendations, contributing to the draft and final review report, and closure of Key Issues. An onsite visit to the Oak Ridge Reservation to participate in the onsite review portion is anticipated.  Deliverables include: Draft and final review report.  See attached SOW for additional detail  Mod 2 is a net zero funding change.	
<b>9. Period of Performance: August 1- November 30, 2018</b>	
<b>10. Billing Information:</b>	
Address: CID M1WLFRG18K1; OR90	
2018.30. 01250.1111559.0001126.471999.25199.0000000.61000000.0473254.\$135,300.00 2018.30. 01250.1111559.0001126.471999.25199.0000000.61000000.0473254.\$62,740.00 2018.30. 01250.1111559.0001126.471999.25199.0000000.61000000.0473254.(\$198,040.00) 2018.30. 01250.1111673.0001126.471999.32004.0000000.17209300.0473254.\$198,040.00	
Order Number:	
<b>Authority</b>	<b>Current Year</b>
<b>Previous Total</b>	<b>Cumulative</b>
\$ 198,040.00	\$ 198,040.00
\$ 0.00	\$ 0.00
<b>Revised Total</b>	<b>Revised Total</b>
\$ 198,040.00	\$ 198,040.00
<b>Performer</b>	
<b>11. Performing Contractor:</b> DOE Richland Operations Office	
<b>12. Performing Contractor OPI Code:</b> RL90	<b>13. Allotment Symbol:</b> 34
<b>14. Cognizant Contracting Officer:</b> Jenise C. Connerly, C.O.	
Telephone 509-376-8362	
E-Mail Jenise.Connerly@rl.doe.gov	
<b>15. Performer's Cognizant Contracting Officer Signature:</b>	
 <span style="float: right;">Date: 9-26-18</span>	



## Sittman, Michelle R

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**From:** Connerly, Jenise C  
**Sent:** Wednesday, September 26, 2018 10:27 AM  
**To:** Sittman, Michelle R  
**Subject:** FW: IEWO - M1WLFRG18K1 REVISED  
**Attachments:** IEWO- M1WLFRG18K1, Mod 2 Septe 2018.pdf

Michelle,

I have no issue with making the funding swap identified in the attached IEWO. Please include in the next CHPRC modification.

Jenise