

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1 5

2. AMENDMENT/MODIFICATION NO.

0401

3. EFFECTIVE DATE

See Block 16C

4. REQUISITION/PURCHASE REQ. NO.

5. PROJECT NO. (if applicable)

6. ISSUED BY

CODE

00603

7. ADMINISTERED BY (if other than Item 6)

CODE

00603

Office of River Protection
U.S. Department of Energy
Office of River Protection
P.O. Box 450
Richland WA 99352

Office of River Protection
U.S. Department of Energy
Office of River Protection
P.O. Box 450
MS: H6-60
Richland WA 99352

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

WASHINGTON RIVER PROTECTION SOLUTIONS LLC
Attn: BRIAN THOMAS
C/O URS ENERGY & CONSTRUCTION, INC.
PO BOX 73 / 720 PARK BLVD
BOISE ID 837290073

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO.
DE-AC27-08RV14800

10B. DATED (SEE ITEM 13)

05/29/2008

CODE 806500521

FACILITY CODE

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

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).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52-243.2 Changes-Cost Reimbursement
	D. OTHER (Specify type of modification and authority)

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

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

The purpose of this modification is to definitize cost and fee for the Chemical Vapors Implementation Plan, Phase One proposal.

Payment:

OR for ORP

U.S. Department of Energy

Oak Ridge Financial Service Center

P.O. Box 4307

Oak Ridge TN 37831

Period of Performance: 06/20/2008 to 09/30/2016

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)

Katie Downing, CONTRACTS MGR.

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Wade E. Hader

15B. CONTRACTOR/OFFEROR

KAD
(Signature of person authorized to sign)

15C. DATE SIGNED

9/29/16

16B. UNITED STATES OF AMERICA

Wade E. Hader
(Signature of Contracting Officer)

16C. DATE SIGNED

22 Sep 2016

Purpose of Modification:

The purpose of this supplemental agreement is to definitize Change Proposal number CP-15-009 for the Chemical Vapors Implementation Plan, Phase One, (WRPS-1500228 R1, dated June 8, 2015 and WRPS-1500228 R2 dated November 30, 2015), including negotiated scope adjustments captured in Attachment 2 of the Modification, in accordance with FAR 52.243-2, Changes-Cost Reimbursement (AUG 1987).

1. Update Section B as follows:

- 1.1 Incorporate cost and fee for the Chemical Vapors Implementation Plan, Phase One. The addition of this new scope increases costs in the amount of \$48,387,953 and fee in the amount of \$3,742,552, for a total increase in contract value of \$52,130,505. The costs and fee are incorporated in the B.4-1 Table by sub-CLIN and Fiscal Year as follows:

**Chemical Vapors Implementation Plan - Phase 1
Option Period 1**

Chemical Vapors Implementation Plan - Phase 1 (CP-15-009)	FY2014	FY2015	FY2016	Total
SubCLIN 1.2.1 - Safe, Compliant Operations	-	5,518,138.60	26,877,326.70	32,395,465.30
SubCLIN 1.2.2 - Base Operations Indirect Costs (G&A Only)	-	1,212,466.15	4,060,908.74	5,273,374.89
SubCLIN 1.3 - Analytical Laboratory Support	-	246,843.83	2,104,524.72	2,351,368.55
SubCLIN 6.1 - Hanford Employee Retirement & Benefit Plan Management	-	606,385.08	2,096,164.62	2,702,549.70
Subtotal Cost	-	7,583,833.67	35,138,924.78	42,722,758.44
Fee increase (pool)	-	-	-	3,278,829.08
Total Increase Cost plus Fee - Option Period 1	-	7,583,833.67	35,138,924.78	46,001,587.52

**Chemical Vapors Implementation Plan - Phase 1
Option Period 2**

Chemical Vapors Implementation Plan - Phase 1 (CP-15-009)	FY2017	FY2018	Total
SubCLIN 1.2.1 - Safe, Compliant Operations	4,980,825.14	-	4,980,825.14
SubCLIN 1.2.2 - Base Operations Indirect Costs (G&A Only)	679,210.11	-	679,210.11
SubCLIN 6.1 - Hanford Employee Retirement & Benefit Plan Management	5,159.30	-	5,159.30
Subtotal Cost	5,665,194.55	-	5,665,194.55
Fee increase (pool)	-	-	463,722.92
Total Increase Cost plus Fee - Option Period 2	5,665,194.55	-	6,128,917.47

- 1.2 As a result of this modification, the Total Contract Value is increased by \$52,130,505, from \$6,063,285,251 to \$6,115,415,756. Section B, Table B.4-1, sub-CLIN 1.2.1, sub-CLIN 1.2.2, sub-CLIN 1.3 and sub-CLIN 6.1 and Total Contract Price are changed as follows:

TO:

Table B.4-1 Contract Cost and Contract Fee

CLIN	Sub-CLIN	Auth	Base Period							Option Period 1				Option Period 2			Contract Totals				
			FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Totals	FY 2014	FY 2015	FY 2016	Totals	FY 2017	FY 2018	Totals					
	1.1	A	5,494,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,494,000	
	1.2	A	0	108,317,537	130,557,912	139,669,524	138,592,209	176,874,583	694,011,765	0	0	0	0	0	0	0	0	0	0	0	1,845,307,747
	1.2.2	A	0	29,509,468	33,281,799	30,647,681	44,176,825	44,811,205	182,426,978	0	0	0	0	0	0	0	0	0	0	0	4,462,558
	1.3	A	0	18,551,276	19,732,180	22,296,216	23,131,428	23,312,148	107,023,247	0	0	0	0	0	0	0	0	0	0	0	400,475,857
	2.1	A	0	57,403,088	72,752,511	75,625,974	84,296,765	94,643,864	384,722,172	0	0	0	0	0	0	0	0	0	0	0	252,194,378
	2.2	A	0	1,385,657	2,367,273	3,266,018	381,496	512,554	7,912,998	0	0	0	0	0	0	0	0	0	0	0	776,741,766
	3.1	A	0	7,973,662	17,496,036	20,512,679	36,090,531	28,740,466	110,815,414	0	0	0	0	0	0	0	0	0	0	0	36,008,166
	3.2	A	0	926,406	3,845,905	2,538,026	3,272,674	2,588,147	13,171,157	0	0	0	0	0	0	0	0	0	0	0	225,549,942
	3.3	A	0	829,600	3,462,842	2,535,361	3,317,522	309,605	10,454,929	0	0	0	0	0	0	0	0	0	0	0	47,737,128
	3.4	A	0	158,274	544,884	1,787,451	4,212,966	39,542	6,743,117	0	0	0	0	0	0	0	0	0	0	0	44,985,044
	4.1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-791
	4.2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4.3	A	0	0	2,798,664	8,547,404	976,925	4,795,858	17,118,850	0	0	0	0	0	0	0	0	0	0	0	0
	4.4	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4.5	A	0	2,412	0	0	110,034	375,222	487,668	0	0	0	0	0	0	0	0	0	0	0	0
	5.1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5.2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5.3	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5.4	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6.1	A	0	14,203,459	19,021,014	16,942,123	23,321,065	26,848,072	100,335,732	0	0	0	0	0	0	0	0	0	0	0	0
	6.2	A	0	71,526,845	146,785,096	90,633,410	79,044,602	122,161,289	510,151,241	0	0	0	0	0	0	0	0	0	0	0	0
	Contract Cost		5,494,000	310,787,683	462,648,115	415,001,865	440,925,030	526,012,575	2,145,375,269	0	0	0	0	0	0	0	0	0	0	0	0
	Available Fee		0	14,902,548	21,704,882	19,899,711	21,142,750	24,524,804	102,174,694	0	0	0	0	0	0	0	0	0	0	0	0
	Contract Price		5,494,000	325,690,231	474,352,998	434,901,576	462,067,780	550,537,379	2,247,549,963	0	0	0	0	0	0	0	0	0	0	0	0
	CLIN 7	A	0	18,542,771	82,686,778	87,820,906	0	0	189,060,455	0	0	0	0	0	0	0	0	0	0	0	0
	7.2	A	0	2,444,642	15,043,442	17,382,721	0	0	34,870,804	0	0	0	0	0	0	0	0	0	0	0	0
	7.3	A	0	3,599,231	20,087,000	26,950,992	0	0	50,637,222	0	0	0	0	0	0	0	0	0	0	0	0
	7.4	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.5	A	0	820,051	2,960,284	4,272,691	0	0	8,053,026	0	0	0	0	0	0	0	0	0	0	0	0
	7.6	A	0	0	8,620,572	10,278,267	0	0	18,898,839	0	0	0	0	0	0	0	0	0	0	0	0
	Contract Cost		0	25,406,695	129,408,075	146,705,577	0	0	301,520,347	0	0	0	0	0	0	0	0	0	0	0	0
	Available Fee		0	2,853,000	11,180,000	8,309,000	0	0	22,342,000	0	0	0	0	0	0	0	0	0	0	0	0
	Contract Price		0	28,259,695	140,588,075	155,014,577	0	0	323,862,347	0	0	0	0	0	0	0	0	0	0	0	0
	Contract Cost		5,494,000	336,194,379	582,056,190	561,707,442	440,925,030	526,012,575	2,446,895,616	0	0	0	0	0	0	0	0	0	0	0	0
	Available Fee		0	17,755,548	32,884,882	28,208,711	21,142,750	24,524,804	124,516,694	0	0	0	0	0	0	0	0	0	0	0	0
	Contract Price		5,494,000	353,949,926	614,941,072	589,916,153	462,067,780	550,537,379	2,571,412,310	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		5,494,000	353,949,926	614,941,072	589,916,153	462,067,780	550,537,379	2,571,412,310	599,954,968	826,983,957	786,506,999	2,156,372,732	639,382,865	568,404,181	1,207,787,045	1,267,466,606	5,791,553,469	1,267,466,606	5,791,553,469	
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals		0	0																	

2. Attached to this modification are:
 - Attachment 1 – Replacement page for Section B, Page B-6, and
 - Attachment 2 – Phase 1 of the Chemical Vapors Plan Implementation Plan (CP-15-009) – Proposed to Negotiated Scope Crosswalk

3. **FAR 43.204(c)(2) - Contractor's Statement of Release –**

In consideration of the modification agreed to herein as complete equitable adjustments for the incorporation of cost and fee for Change Proposal number CP-15-009 (WRPS-1500228 R1, dated June 8, 2015 and WRPS-1500228 R2 dated November 30, 2015) for Chemical Vapors Plan Implementation Plan, Phase 1, including negotiated scope adjustment captured in Attachment 2 of this Modification, the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to these “proposals for adjustment,” except for those items specifically noted in the proposal and other items not reasonably contemplated by the parties at the time of proposal definitization, including and/or in addition to the specific items as follows:

- Potential Regulatory and/or legal requirements imposed by the Department of Ecology, Department of Health, or the courts imposed actions which are not inclusive to the scope described per this modification.
 - Events related to stop-work actions outside the control of WRPS.
 - Other items not reasonably contemplated by both parties at the time of negotiations.
4. **All other Terms and Conditions remain unchanged.**

ATTACHMENT 1
Replacement Pages

DE-AC27-08RV14800, MODIFICATION 401

Total: Two (2) pages including this cover page

- Contract Section B, *Supplies or Services and Prices/Costs*, page B-6

ATTACHMENT 2

Proposed to Negotiated Crosswalk

DE-AC27-08RV14800, MODIFICATION 401

Total: Twenty (20) pages including this cover page

- Phase One of the Chemical Vapors Implementation Plan (CP-15-009) –
Proposed to Negotiated Crosswalk

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
1	5.01.05.11.01 – 1-SC1 – Plan for Tank Head Space Sample	Develop a prioritized program to sample and characterize tank head space composition and stratification during quiescent as well as disturbed conditions. (Phase 1)	5.01.05.11.01	<p>Deliverable: Research and Development (R&D) for collecting head space gases from the single-shell tank (SST) and double-shell tank (DST) head spaces including Data Quality Objective (DQO).</p> <p>Completion Criteria: Head Space Sample Plan including DQO.</p>	
1	5.01.05.11.01 – 1-SC1 – Plan for Tank Head Space Sample	Develop and/or revise the head space sampling Data Quality Objectives. (Phase 1)	5.01.05.11.09	<p>Deliverable: R&D for collecting head space gases from the SST and DST head spaces including DQO.</p> <p>Completion Criteria: Head Space Sample Plan including DQO.</p>	
1	5.01.05.11.01 – 1-SC1 – Plan for Tank Head Space Sample	Incorporate sample results into the existing Industrial Hygiene (IH) Technical Basis. (Phase 1)	5.01.05.11.10	<p>Deliverable: Head Space sampling results will be incorporated into Chemical of Potential Concern (COPC) review activities as applicable (5.01.05.11.10).</p> <p>Completion Criteria: Modification as applicable to the IH Technical Basis.</p>	
2	5.01.05.11.02 – 2-SC2 – Chemical Plating Assessment	Conduct an assessment of the potential for materials to plate or condense. (Phase 1)	5.01.05.11.02 (Includes Subcontracts)	<p>Deliverable: Chemical Plating Assessment – Detailed report that will incorporate both the qualitative and quantitative description of the target organic species present in the field samples based upon the modeling and experimentation.</p> <p>Completion Criteria: Detailed Chemical Plating Report.</p>	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
3	5.01.05.11.03 – 3-SC3 – Detection Technologies	Initiate technological evaluations, field testing, and deployment of advanced technologies focused on fugitive emission sources. (Phase 1)	5.01.05.11.03	<p>Deliverable: Conduct a literature review of current fixed vapor sensors deployed in support of pollution tracking. Evaluate the potential for vapor leaks on valves during waste transfer operations.</p> <p>Completion Criteria: Functions and Requirements for deployment of the sensors Final test report from Pacific Northwest National Laboratory (PNNL).</p>	<p>Deleted the following scope in negotiations:</p> <ul style="list-style-type: none"> Evaluate the potential for vapor leakage on valves during waste transfer operations Final test report from Pacific Northwest National Laboratory (PNNL), providing the results of fugitive emissions testing.
3	5.01.05.11.03 – 3-SC3 – Detection Technologies	Implement procurement and deployment of the selected monitoring/sampling technology, based on evaluation and field testing. (Phase 1)	5.01.05.11.03	<p>Deliverable: Design, fabricate, and test tailored fixed-in-place Photo Ionization Detector in a R&D setting. Create a design and installation Function and Requirements document for deployment of sensors into existing Mission Support Alliance stations.</p> <p>Completion Criteria: Deployment of monitoring sample technology.</p>	
3	5.01.05.11.03 – 3-SC3 – Detection Technologies	Develop and issue a Technical Maturation Plan (TMP), including subject-matter expert reviews for identified technologies. (Phase 1)	5.01.05.11.03 5.01.05.11.38	<p>Deliverable: TMP is covered under Request for Equitable Adjustment (REA) CP-14-035 (WRPS-15002661) – Currently in Performance Measurement Baseline (PMB) Schedule: 5.01.05.02.11. Subject matter expert (SME) reviews covered under 5.01.05.11.38.</p> <p>Completion Criteria: TMP</p>	

¹ Simpson, C. A., 2015, "Contract Number DE-AC27-08RV14800 – Washington River Protection Solutions LLC Submittal of the Change Proposal for the Vapors Response Corrective Actions – Phase 1 – CP-14-035," (Letter, WRPS-1500266 to W. E. Hader, U.S. Department of Energy, Office of River Protection, Richland, Washington, January 15), Washington River Protection Solutions LLC, Richland, Washington.

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
4	5.01.05.11.04 – 4-SC4 – Hand Held Technologies	Develop and issue a TMP for new technologies. The review, selection, and incorporation of selected technologies will include subject-matter expert reviews. (Phase 1)	5.01.05.11.04 5.01.05.11.33 5.01.05.11.38	Deliverable: TMP is covered under REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11. SME reviews covered under 5.01.05.11.38. Completion Criteria: TMP	
4	5.01.05.11.04 – 4-SC4 – Hand Held Technologies	Initiate multiple actions to perform technological evaluations, field-testing, and deployment of new technologies focused on fugitive emission sources. Based on the evaluation and field testing, procurement and deployment of the selected monitoring/sampling technology will be implemented. (Phase 1)	5.01.05.11.04	Deliverable: Conduct a literature review of available detection units. Design, fabricate, and test tailored hand-held monitoring equipment in an R&D setting. Create a functional requirements document for deployment of detection units into the field. Completion Criteria: Functions and requirements document	
5	5.01.05.11.05 – 5-SC5 – Alarming & Communication Devices	Develop and issue a TMP for new technologies. The review, selection, and incorporation of selected technologies will include subject-matter expert reviews. (Phase 1)	5.01.05.11.05 5.01.05.11.33 5.01.05.11.38	Deliverable: TMP is covered under REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11. SME reviews covered under 5.01.05.11.38. Completion Criteria: TMP	
5	5.01.05.11.05 – 5-SC5 – Alarming & Communication Devices	Initiate multiple actions to perform technological evaluations, field testing, and deployment of new technologies focused on stack and vent emission sources and local alarming systems. (Phase 1)	5.01.05.11.05	Deliverable: Conduct a literature review of available detection units. Design, fabricate, and test tailored alarming and communication equipment in an R&D setting. Create a functions and requirements document for deployment of devices in the field. Completion Criteria: Functions and requirements document.	

ATTACHMENT 2

**PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009)
PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)**

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
6	5.01.05.11.06 – 6-EA1 – IH Personnel Monitor Equipment	Schedule actions which include the assessment of characterizing tank head spaces. (Phase 1)	5.01.05.11.01	Deliverable: Schedule is included in planning of 5.01.05.11.01. Completion Criteria: Head Space Sample Plan	
6	5.01.05.11.06 – 6-EA1 – IH Personnel Monitor Equipment	Develop and issue a TMP for new technologies. The review, selection, and incorporation of selected technologies will include subject-matter expert reviews. (Phase 1)	5.01.05.11.33 5.01.05.11.38	Deliverable: TMP is covered under REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11. SME reviews covered under 5.01.05.11.38. Completion Criteria: TMP	
6	5.01.05.11.06 – 6-EA1 – IH Personnel Monitor Equipment	Perform air dispersion models to increase the fidelity of the technical basis for the Vapor Control Zones (VCZs). (Phase 1)	5.01.05.11.34 5.01.05.11.35	Deliverable: Improved IH program procedures covered in 5.01.05.11.34 and 5.01.05.11.35. Completion Criteria: Improved IH program procedures.	<ul style="list-style-type: none"> Ohio LUMEX RA (pilot) – 915M Mercury Analyzer – 100 proposed, 12 negotiated Industrial Scientific MX6 (pilot) – 100 proposed, 12 negotiated RAE Systems – MultiRAE Pro (pilot) – 100 proposed, 12 negotiated
6	5.01.05.11.06 – 6-EA1 – IH Personnel Monitor Equipment	Initiate actions to accelerate the procurement of additional real-time direct reading instruments, personal sample pumps, and alarm-detecting capabilities to capture and protect workers from short/intermittent bolus releases. (Phase 1)	5.01.05.11.06	Deliverable: Receipt of personal monitoring equipment, rental of modular facility to support vapor sampling, and receipt of vapor sampling equipment. Completion Criteria: Receipt of equipment on-site.	<ul style="list-style-type: none"> RAE Systems – MultiRAE Pro (large lot) – 1000 proposed, 200 negotiated
6	5.01.05.11.06 – 6-EA1 – IH Personnel Monitor Equipment	Based on the results, incorporate the changes into a revised IH Technical Basis. The characterization will assist in strengthening the overall program requirements and will focus on potential bolus exposures within the tank farms. (Phase 1)	5.01.05.11.06	Deliverable: Use personal monitoring equipment and issue a final report with recommendations. Completion Criteria: Final report recommendation for the IH Technical basis.	

ATTACHMENT 2

**PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009)
PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)**

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7	5.01.05.11.07 – 7-EA2 – Field Stability & Recovery Study	Contract with industry experts to revise and update PNNL-14767, <i>Characterization of the Near-Field Transport and Dispersion of Vapors Released from the Headspace of Hanford Site Underground Storage Tanks²</i> , based on newer technologies, methodologies, and sampling/monitoring results. (Phase 1)	5.01.05.11.08 5.01.05.11.34 5.01.05.11.07 (Subcontracts)	Deliverable: Update PNNL-14767 (Dropo report) incorporating available dispersion modeling data (5.01.05.11.08 Stacks, 5.01.05.11.34 Breather Filters). Completion Criteria: Updated Droppo report as applicable.	
7	5.01.05.11.07 – 7-EA2 – Field Stability & Recovery Study	Perform an assessment that focuses on the development of sampling strategies, utilizing analytical methods for reactive volatile organic chemicals (VOCs), submicron aerosols, volatile metal compounds, and volatile metalloid compounds. Results of the assessment will determine appropriate actions for implementing sampling methodology enhancements. (Phase 1)	5.01.05.11.07 (Subcontracts)	Deliverable: Sampling and testing strategy document for reactive VOCs, volatile metal, and metalloid compounds and aerosols. Private lab testing and subsequent results for said compounds and aerosols. Completion Criteria: Lab results	
8	5.01.05.11.08 – 8-EA3 – Dispersion Model Review	Contract with industry experts to perform dispersion modeling. The basis of the model will help to determine the predicted locations and levels of potential chemical vapor emissions, effectiveness of increased stack heights, and other engineered controls. (Phase 1)	5.01.05.02.11.06 5.01.05.11.08	Deliverable: Third party review of modeling performed in 5.01.05.02.11.06 documented in an updated dispersion modeling report. Completion Criteria: Updated dispersion model report	<ul style="list-style-type: none"> Delete Risk Mitigation Activity – <i>Perform Additional Dispersion Modeling.</i> Removed risk item at negotiations.

² PNNL-14767, 2004, *Characterization of the Near-Field Transport and Dispersion of Vapors Released from the Headspace of Hanford Site Underground Storage Tanks*, Rev. 0, Pacific Northwest National Laboratory, Richland, Washington.

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

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8	5.01.05.11.08 – 8-EA3 – Dispersion Model Review	Incorporate additional models, such as the American Industrial Hygiene Associate (AIHA) Air Dispersion Model, into the work control and worker protection program. (Phase 1)	5.01.05.11.08	Deliverable: Review an analysis of AIHA dispersion models. Completion Criteria: Develop process to include the model results into work control program.	
9	5.01.05.11.09 – 9-DR1 – Head Space & Stack Sampling	Initiate additional exhaust stack sampling, head space sampling, and fugitive-emission monitoring/sampling. (Phase 1)	5.01.05.11.09	Deliverable: Conduct thirty (30) sampling evolutions between Fiscal Year (FY) 2015 and FY 2016. Completion Criteria: Lab analysis results.	<ul style="list-style-type: none"> • Delete Risk Mitigation Activities – 10 <i>Additional Head Space and Stack Samples</i>. Removed risk item at negotiations.
10	5.01.05.11.10 – 10-DR2 – Review/Update COPC Listing	Perform an IH program review and incorporate changes as necessary. (Phase 1)	5.01.05.11.10	Deliverable: COPC Review Report; Database consolidation; COPC electronic data management. Completion Criteria: Update IH technical basis Site wide Industrial hygiene database and Tank Vapor Information Sheet.	
11	5.01.05.11.14 – 14-DR6 – Evaluate Medical Surveillance Program	Participate in and provide feedback on DOE's evaluation of an enhanced medical-surveillance program that provides continuous feedback and evaluation results based on short-term and long-term health consequences to the exposed worker. (Phase 1)	5.01.05.11.14	Deliverable: Comprehensive report summarizing the current health surveillance program effectiveness and documenting the available information used to assess the program effectiveness. Completion Criteria: Recommendation to DOE on enhanced medical surveillance in Phase 2, FY 2017-19.	
12	5.01.05.11.21 – 21-RCH4a – IH Routines Prog for SST/DSTs	Initiate a strategy for an enhanced IH monitoring routine for the tank farms. This includes developing and implementing additional routine processes to identify and validate chemical vapor controls and fugitive emission points. (Phase 1)	5.01.05.11.21	Deliverable: The development of an IH Routines Program for SST/DSTs. Completion Criteria: Documented IH Routines for all farm locations.	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

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13	5.01.05.11.24 – 24-RM1a – Train/Maintain IH Staff	Build the IH organization with the correct expertise and resources to assist with the characterization, enhanced monitoring, research, and exposure assessment modeling. (Phase 1)	5.01.05.11.24 5.01.05.11.38	Deliverable: Hire and train all Vapor team staff. Completion Criteria: Trained Vapor team staff.	
14	5.01.05.11.25 – 25-RM1b – Combined Not Used with other actions (26)	Complete staffing comparisons between radiological controls, flammability, and IH. (Phase 1)	5.01.05.11.24 5.01.05.11.27 5.01.05.11.38	Deliverable: Documented gap analysis. Completion Criteria: Gap analysis	
14	5.01.05.11.25 – 25-RM1b – Combined Not Used with other actions (26)	Complete and implement additional qualifications and requirements for the IH function. (Phase 1)	5.01.05.11.24 5.01.05.11.38	Deliverable: Industrial Hygiene Technicians program with additional training and qualifications. Completion Criteria: Qualified IH/Industrial Safety (IS) staff.	
14	5.01.05.11.25 – 25-RM1b – Combined Not Used with other actions (26)	Initiate actions to increase IH staffing levels so that additional emphasis will be placed on work planning, field execution, and oversight. (Phase 1)	5.01.05.11.24 5.01.05.11.38	Deliverable: Qualified IH/IS staff to provide field oversight. Completion Criteria: Qualified IH/IS staff.	
15	5.01.05.11.26 – 26-RM1c – Combined Not Used with other actions (27)	Complete staffing comparisons between radiological controls, flammability, and IH. (Phase 1)	5.01.05.11.24 5.01.05.11.27 5.01.05.11.38	Deliverable: Documented gap analysis. Completion Criteria: Gap analysis	
15	5.01.05.11.26 – 26-RM1c – Combined Not Used with other actions (27)	Initiate actions to increase IH staffing levels so that additional emphasis will be placed on work practices, personal protective equipment (PPE), and engineering controls. (Phase 1)	5.01.05.11.24 5.01.05.11.38	Deliverable: Qualified IH/IS staff to provide field oversight. Completion Criteria: Qualified IH/IS staff.	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
16 (14)	5.01.05.11.27 – 27-RM1d – GAP Analysis on 10 CFR 851	Complete staffing comparisons between radiological controls, flammability, and IH. (Phase 1)	5.01.05.11.27	Deliverable: Documented gap analysis. Completion Criteria: Gap analysis	
16 (14)	5.01.05.11.27 – 27-RM1d – GAP Analysis on 10 CFR 851	Initiate hiring actions to increase IH staffing levels so that additional emphasis will be placed on informing and training line functions and managers regarding worker concerns. (Phase 1)	5.01.05.11.24 5.01.05.11.38 5.01.05.11.43	Deliverable: New IH staff and technicians will be hired with enhanced training and communication skills provided. Completion Criteria: Delivery of training module focused on risk communication.	
16 (14)	5.01.05.11.27 – 27-RM1d – GAP Analysis on 10 CFR 851	Hire additional professionals to support lab work scope resulting in a timely reporting of sample results. (Phase 1)	5.01.05.11.24 5.01.05.11.38	Covered in 5.01.05.11.24, 5.01.05.11.38.	
16 (14)	5.01.05.11.27 – 27-RM1d – GAP Analysis on 10 CFR 851	Place external contracts for additional sample processing capabilities. (Phase 1)	5.01.05.11.09 5.01.05.11.10	Deliverable: Documented gap analysis identified the need for additional lab staff. Completion Criteria: Increased staff.	
17 (15)	5.01.05.11.29 – 29-RM2 – Chemical Vapor Worker I/II Training	Evaluate the current DOE programmatic requirements between IH and Radiological Control, and develop processes to address programmatic differences. (Phase 1)	5.01.05.11.29 (Subcontracts)	Deliverable: Chemical Vapor I/II training program, IH Qualifications, IH Tech consistency. Completion Criteria: Training Outline to implement in Phase 2, FY 2017-19.	
18 (16)	5.01.05.11.30 – 30-RM3 – Worker Chemical Awareness Training	Enhance Chemical Hazard Awareness Training (CHAT) to increase worker, supervisor, and management understanding of chemical management practices, specific to the tank farms. (Phase 1)	5.01.05.11.29 (Subcontracts) 5.01.05.11.30	Deliverable: Modified CHAT on an annual basis with updates completed in FY 2015 and worker training completed in FY 2016. Information identified in the medical evaluation identified to include chemicals and vapors will be included in the training and update as necessary the Employee Job Task Analysis (EJTA) forms (5.01.05.11.14). Completion Criteria: CHAT training	

ATTACHMENT 2

**PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009)
PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)**

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18 (16)	5.01.05.11.30 – 30-RM3 – Worker Chemical Awareness Training	Incorporate CHAT training into the existing employee training profiles and EJTA. (Phase 1)	5.01.05.11.30 5.01.05.11.14	Deliverable: Modified CHAT on an annual basis with updates completed in FY 2015 and worker training completed in FY 2016. Information identified in the medical evaluation identified to include chemicals and vapors will be included in the training and update as necessary the EJTA forms (5.01.05.11.14). Completion Criteria: CHAT training	
19 (28)	5.01.05.11.31 – 31-RM4 – Combined Chem ALARA Perf. with other Indicators	Complete staffing comparisons between radiological controls, flammability, and IH. (Phase 1)	5.01.05.11.24 5.01.05.11.27 5.01.05.11.41	Deliverable: Documented gap analysis. Completion Criteria: Gap analysis	
19 (28)	5.01.05.11.31 – 31-RM4 – Combined Chem ALARA Perf. with other Indicators	Initiate hiring actions to increase IH staffing levels so that additional emphasis will be placed on work planning, job execution and post-job As Low As Reasonably Achievable (ALARA) review. (Phase 1)	5.01.05.11.24	Deliverable: Qualified IH/S staff to provide field oversight. Completion Criteria: Qualified IH/S staff	
20 (17)	5.01.05.11.33 – 33-RM6 – New Vapor Detection Technology	Initiate actions to conduct research, evaluation, and field testing of technologies to detect and control chemical vapor plumes. (Phase 1)	5.01.05.11.33 (Subcontractors, Material Procurements)	Deliverable: Mature an integrated Vapor Monitoring and Detection (VMD) Systems to a readiness level of TRL6. This will include IH / Engineering review of modeling. Add equipment, procurement to address weather conditions and real-time emissions. Completion Criteria: IH/Engineering review	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
20 (17)	5.01.05.11.33 – 33-RM6 – New Vapor Detection Technology	Form a dedicated task team of technical experts, workers, and managers to research and implement the most appropriate methods. Solicited industry experts for additional review. This effort has been underway since June 2014. (Phase 1)	5.01.05.11.33 (Subcontractors, Material Procurements)	Deliverable: Mature an integrated VMD Systems to a readiness level of TRL6. A technology maturation plan with down select criteria developed to test equipment to determine detection and monitoring devices. Completion Criteria: A report will be provided with results of bench and pilot scale testing.	
20 (17)	5.01.05.11.33 – 33-RM6 – New Vapor Detection Technology	Begin field testing for multiple technologies. (Phase 1)	5.01.05.11.33 (Subcontractors, Material Procurements)	Deliverable: Mature an integrated VMD Systems to a readiness level of TRL6. Field teams will be assembled to integrate the new technology and wireless capabilities. Completion Criteria: A report will be provided with the results of the bench and pilot scale tests.	
21 (18)	5.01.05.11.34 – 34-RM7a – Protocols for Establishing VCZs / VRZs	Initiate a comprehensive review and evaluation regarding the establishment, implementation, and maintenance of VCZs and Vapor Reduction Zones (VRZs). (Phase 1)	5.01.05.11.34	Deliverable: Improved IH program procedures for establishment, implementation and maintenance of VCZs and VRZs. Completion Criteria: IH program procedures.	
21 (18)	5.01.05.11.34 – 34-RM7a – Protocols for Establishing VCZs / VRZs	Conduct a comprehensive evaluation of air dispersion modeling based on the AIHA Standards to assist in the reevaluation of VCZ and VRZs boundaries. (Phase 1)	5.01.05.11.34	Deliverable: Improved IH program procedures for establishment, implementation and maintenance of VCZs and VRZs. Completion Criteria: IH program procedures.	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
22 (19)	5.01.05.11.35 – 35-RM/7b – Protocols for Chemical Cartridge Use	Implement the use of half-face/full-face combination chemical-cartridge respirators in the SST farms with the appropriate posting and communications of this control, based on the release of the TVAT report. (Phase 1)	5.01.05.11.35	<p>Deliverable: Provide estimated field lifetimes for each selected type of chemical cartridge. Updated IH program inclusive of testing information. Conduct independent review of cartridges based upon known COPCs with results documented through subcontract deliverable report. Additional testing may be needed as results are obtained through new technology, pilot testing, and field stability evaluation results.</p> <p>Completion Criteria: Independent Review and report with results.</p>	<ul style="list-style-type: none"> • Negotiated increased crew size pricing for activity - <i>WRPS Labor to Support Chemical Cartridge Testing (FY15)</i> • Sampling plan and project definition resulted in two (2) cartridges tested at six (6) different sources • Delete Risk Mitigation Activity - <i>WRPS Labor to Support Chemical Cartridge Testing (FY16)</i>
22 (19)	5.01.05.11.35 – 35-RM/7b – Protocols for Chemical Cartridge Use	Implement the control of supplied air for all work in SST and DST farms where there is a potential for low-threshold vapors. These controls were initiated to focus on worker safety while respiratory protection (i.e., cartridge effectiveness) evaluations could be conducted). (Phase 1)	5.01.05.11.34 5.01.05.11.35	<p>Deliverable: Provide estimated field lifetimes for each selected type of chemical cartridge based upon available data. Updated IH program inclusive of testing information. The implementation of the phased approach to the respiratory protection is dependent upon the review and concurrence from DOE-ORP on the Protocol and Methodology for the technical respiratory protection evaluation for each farm location.</p> <p>Completion Criteria: Independent Review and report with results.</p>	<ul style="list-style-type: none"> • Negotiated increased crew size pricing for activity - <i>WRPS Labor to Support Chemical Cartridge Testing (FY15)</i> • Sampling plan and project definition resulted in two (2) cartridges tested at six (6) different sources • Delete Risk Mitigation Activity - <i>WRPS Labor to Support Chemical Cartridge Testing (FY16)</i>

ATTACHMENT 2

**PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009)
PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)**

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
22 (19)	5.01.05.11.35 – 35-RM7b – Protocols for Chemical Cartridge Use	Perform chemical-cartridge technical evaluation to determine source-sampling locations, duration of samples, sample results, modeling, and vapor-control zones to confirm respiratory protective equipment is effective. (Phase 1)	5.01.05.11.34 5.01.05.11.35	Deliverable: Provide estimated field lifetimes for each selected type of chemical cartridge. Updated IH program inclusive of testing information. Institute air-purifying respirator usage option at one (1) select tank farm. Subcontract experts will conduct this evaluation and provide a report with results. Completion Criteria: Independent Review and report with results.	<ul style="list-style-type: none"> Delete Risk Mitigation Activity - <i>Chemical Cartridge Evaluation Process Subcontracts</i>
23 Covered in REA (31)	5.01.05.11.36 – 36-RM8 – Medical Stakeholders	Support DOE and the Hanford on-site medical provider to refine the medical protocol for potential chemical exposure evaluations. (Phase 1)	5.01.05.02.11	Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11	
23 Covered in REA (31)	5.01.05.11.36 – 36-RM8 – Medical Stakeholders	Enhance communications to medical providers; describe the limitations of the sampling data for chemicals and vapors in ongoing and frequent interactions among medical service providers and the tank farms contractor as changes in the sampling data or monitoring technologies occur. (Phase 1)	5.01.05.02.11	Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

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24 (20)	5.01.05.11.37 – 37-RM9 – IH Improvements Tracking	Incorporate and track all actions associated with the chemical vapor management process through currently established corrective action management system. (Phase 1)	5.01.05.11.37	<p>Deliverable: Ongoing support through completion of programmatic integration of Implementation Plan (IP) Actions for Hanford Tank Vapor Assessment Report Recommendations. Action tracked through the Project Execution Plan and the Field Execution Schedule and via the project schedule. This does not exclude the Problem Evaluation Request system from being used but is not the primary method to track project improvements.</p> <p>Completion Criteria: Reports and results from the Field Execution Schedule will be provided to DOE-ORP as deliverables.</p>	
25 (21)	5.01.05.11.38 – 38-RM10 – Management Commitment	Initiate monthly senior-level management meetings with IH staff and field personnel to ensure direct feedback and that information is communicated. (Phase 1)	5.01.05.11.38 (Subcontracts, New Tech Support, New Tech Sub)	<p>Deliverable: Chemical Vapor Solutions Team (CVST) meetings will take place twice times per month. CVST Subcommittee meetings: as needed. Management, staff, and craft will be included in the review and development of the products for the vapors program to ensure a seamless and effective implementation into the IH program and field operations. Additional staff oversight added to this Basis of Estimate (BOE) to include the management of the Bench/Pilot tests for new equipment and the oversight of the Sampling Testing Pilot.</p> <p>Completion Criteria: Communication to CVST.</p>	

ATTACHMENT 2

**PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009)
PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)**

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
25 (21)	5.01.05.11.38 – 38-RM10 – Management Commitment	Issue a statement from senior ORP and tank farms contractor management to employees and stakeholders supporting the recommendations of the Tank Vapor Assessment Report, and committing to implement the recommendations. (Phase 1)	5.01.05.11.38 (Subcontracts, New Tech Support, New Tech Sub)	Deliverable: External communications specialist to provide detail information periodically to internal and external stakeholders to reinforce the recommendations and Tank Operations Contract (TOC) implementation of these recommendations. Completion Criteria: Communication Plan.	
25 (21)	5.01.05.11.38 – 38-RM10 – Management Commitment	Have the tank farms contractor Executive Safety Review Board (ESRB) approve and monitor the IP. (Phase 1)	5.01.05.11.38 (Subcontracts, New Tech Support, New Tech Sub)	Deliverable: CVST meetings will take place twice times per month. CVST Subcommittee meetings: as needed. Management, staff, and craft will be included in the review and development of the products for the vapors program to ensure a seamless and effective implementation into the IH program and field operations. Additional staff oversight added to this BOE to include the management of the Bench/Pilot tests for new equipment and the oversight of the Sampling Testing Pilot. The CVST Charter has been updated to include periodic updates to the ESRB with actions and improvements documented and tracked. Completion Criteria: Communication Plan and updates to the ESRB.	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
25 (21)	5.01.05.11.38 – 38-RM10 – Management Commitment	Establish an external technical panel to monitor implementation, validate R&D plans, and assess effectiveness of vapor prevention and mitigation strategies. (Phase 1)	5.01.05.11.38 (Subcontracts, New Tech Support, New Tech Sub)	Deliverable: Management support to IP actions. The DOE-ORP has established a Vapor Expert Management Panel to provide review and oversight of WRPS improvement actions. Completion Criteria: Management support for IP actions.	
26 Combined Communications with other actions (29)	5.01.05.11.39 – 39-FC1 –	Continue efforts to provide additional information about chemical vapor issues, health risks, and progress being made to mitigate workplace hazards through periodic presentations, public announcements, and other communication vehicles. The frequency will vary depending on audience and project activities. (Phase 1)	5.01.05.11.39 5.01.05.11.38 5.01.05.11.46	Deliverable: External communications specialist to provide detail information periodically to internal and external stakeholders to reinforce the recommendations and TOC implementation of these recommendations. Completion Criteria: Communication Plan.	
27 Covered in REA in REA (32)	5.01.05.11.40 – 40-RC2 – Enhance EJTA Program	Enhance the EJTA program to include improved worker engagement and buy-in into the process and protective measures. This includes worker review, comment, and concurrence when changes are made. (Phase 1)	5.01.05.11.40	Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
28 (22)	5.01.05.11.41 – 41-RC3 – Chemical ALARA Program	Initiate efforts to develop and formalize a chemical ALARA program to manage and oversee overall improvements for vapors focused on improving worker engagement. It will manage the corrective actions and improvements identified within the Tank Vapor Assessment Report, and oversee implementation of advanced detection and monitoring technologies, IH vapor practices, analyses, sampling methods, and sampling protocols. Program elements include the development and management of a chemical vapor communications plan, performance indicators, and program effectiveness reviews. (Phase 1)	5.01.05.11.21 5.01.05.11.27 5.01.05.11.29 5.01.05.11.41	Deliverable: Chemical ALARA Program development. Completion Criteria: Chemical ALARA program.	
29	5.01.05.11.42 – 42-RC4 – Employee Monitor Notifications (33)	Revise the content of the employee monitoring notification letters to include more detailed analysis of the sampling, monitoring, limitations of instrumentation, and analysis. These revisions will continue as new monitoring becomes available.	5.01.05.02.11	Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11	
30 (23)	5.01.05.11.43 – 43-RC5 – IH Professional Development Training	Hire additional qualified Industrial Hygienists and Technicians to support field activities and increase field presence. (Phase 1)	5.01.05.11.24 5.01.05.11.43	Deliverable: New IH staff and technicians will be hired with enhanced training and communication skills provided. Completion Criteria: Delivery of training module focused on risk communication.	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
30 (23)	5.01.05.11.43 – 43-RC5 – IH Professional Development Training	Develop and establish a training module focused on risk communication. This training course will be required for safety and health professionals and selected line management. (Phase 1)	5.01.05.11.43 (Subcontracts)	Deliverable: New IH staff and technicians will be hired with enhanced training and communication skills provided. Completion Criteria: Delivery of training module focused on risk communication.	
31 (24)	5.01.05.11.44 – 44-RC6 – Assess SOEN & Communication System	Perform a specialty assessment of personnel notification systems and seek out alternative methods for immediate notification of employees. (Phase 1)	5.01.05.11.44	Deliverable: Assess and determine alternatives in light of planned monitoring system upgrades. Completion Criteria: Issue a report with recommendations of alternatives for Shift Office Event Notification (SOEN).	
32 (25)	5.01.05.11.45 – 45-RC7 – Determination and Development of SEGs	Hire additional professionals to support lab work scope resulting in a timely reporting of sample results. (Phase 1)	5.01.05.11.37	Deliverable: Covered in 5.01.05.11.37 laboratory labor support. Completion Criteria: Additional laboratory support.	
32 (25)	5.01.05.11.45 – 45-RC7 – Determination and Development of SEGs	Place external contracts for additional sample processing capabilities. (Phase 1)	5.01.05.11.06	Deliverable: Covered in 5.01.05.11.06 laboratory subcontracts. Completion Criteria: Additional laboratory labor support.	

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
32 (25)	5.01.05.11.45 – 45-RC7 – Determination and Development of SEGs	Perform a review of the existing Similar Exposure Group (SEG) basis to ensure proper assignment. (Phase 1)	5.01.05.11.45	<p>Deliverable: SEG theory overview and training for the personnel assigned to this task. Perform a review of the existing SEGs basis to ensure proper assignment of employees in the correct SEG and document as per TFC-ESHQ-S_IH-C-48, Managing Tank Chemical Vapors³, and A Strategy for Assessing and Managing Occupational Exposures⁴. Develop procedure(s) to evaluate worker exposure, establish SEGs for all known chemical exposures, and mandate their use for hazard assessment development.</p> <p>Completion Criteria: Review existing SEGs and develop procedures to evaluate worker exposure.</p>	
33 (30)	5.01.05.11.46 – 46-RC8 – Combined Communications from with other President actions	Revise and improve the event-response protocol for chemical vapor events, which includes improved communications with all employees (e.g., notification letters, event investigation forms, information posting boards). (Phase 1)	5.01.05.11.38	<p>Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11 and transitioned to 5.01.05.11.38.</p>	
33 (30)	5.01.05.11.46 – 46-RC8 – Combined Communications from with other President actions	Enhance communication mechanisms (e.g., SOEN) for other Hanford Site contractors and subcontractors. (Phase 1)	5.01.05.11.38	<p>Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11 and transitioned to 5.01.05.11.38.</p>	

³ TFC-ESHQ-S_IH-C-48, *Managing Tank Chemical Vapors*, Rev. B-2, Section 4.3, "Exposure Profile/Similar Exposure Groups," Washington River Protection Solutions LLC, Richland, Washington.

⁴ Ignacio, J. S. and W. H. Bullock, 2006, *A Strategy for Assessing and Managing Occupational Exposures*, Third Edition, American Industrial Hygiene Association, Falls Church, Virginia.

ATTACHMENT 2

PHASE 1 OF THE CHEMICAL VAPORS PLAN IMPLEMENTATION PLAN (CP-15-009) PROPOSED TO NEGOTIATED SCOPE CROSSWALK (19 Pages)

Item No.	WBS/Implementation Plan	Actions	Cross Reference	Proposal Deliverable	Negotiated Adjustment from Proposed
34	5.01.05.11.47 – 47-RC9 – Covered Medical Stakeholders in REA Comms Proc	Improve information provided for the processing of worker compensation claims. This information includes monitoring and sampling results at the time of the potential exposure, working conditions, weather conditions, and the activities occurring during the period when the employee experienced the symptoms. (Phase 1)	5.01.05.02.11	Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11	
34	5.01.05.11.47 – 47-RC9 – Covered Medical Stakeholders in REA Comms Proc	Increase the frequency of worker briefings, feedback sessions, and regular interface meetings. (Phase 1)	5.01.05.02.11	Covered in REA CP-14-035 – Currently in PMB Schedule: 5.01.05.02.11	