

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

1. Work Order Number: MOSRV00115 Amendment Number: 0	2. Month/Year to be recorded: <small>(For use in DOE-DOE work only)</small> May-14
Authorizer	
3. Authorizing Contractor or Field Office: DOE-Richland Operations Office (Office of River Protection)	
4. Authorizing Contractor or Field Office OPI Code: RL90	5. Allotment Symbol: RL9191
6. Budget Analyst: Phil Dailey Telephone: 509-376-2050 E-Mail: philip.dailey@rl.doc.gov	
7. ORP Technical Point of Contact Signature: Brian Harkins <i>Brian G. Harkins</i> Date: 5/22/14	
8. Authorizing Tank Farms Program Signature: Tom Fletcher <i>Tom Fletcher</i> Date: 5/22/14	
9. Funds Availability Authorization Official's Signature: Phil Dailey <i>Phil Dailey</i> Date: 5/22/14	
10. Authorizing Contracting Officer Signature: (Required for IEWO >\$1M life of project) Marc McCusker Date:	
11. Scope of Work (attach additional sheets if needed): Technical Review for Vapors Evaluation (SRNL) The contractor (SRNL) will lead an Independent Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will review the current WRPS program and provide recommendations and identify further enhancements to WRPS programs and practices to eliminate or minimize worker exposures. See attached Statement of Work. 5/14/2014 - Providing \$1,000,000 of funding for develop and assessment plan within two weeks which will include: 1). Approach for conducting the assessment; 2). Team members and their qualifications; 3). Listing of the information required to perform the assessment; 4). Schedule (including site visits) 5). Cost estimate.	
12. Period of Performance: 5/01/2014 - 09/30/2014	
13. Billing and Budgetary Information: Address: "Accounts Payable - Work will be billed via VIPERS, with reference to Work Order Number" Funding titles: Fund Type.Appo Year.Allottee.Rpt Entity:Obj Cls.Program.Project.WFO.Local Use.Future Use Funding Source: 01250.2014.34.421301.25422.1110909.0001481.0000000.0000000.0000000	
Performer	
14. Performing Contractor: Savannah River Nuclear Solutions, LLC	
15. Performing Contractor OPI Code: SRDO	16.
17. Cognizant Contracting Officer: Matthew Biasiny ✓ JOHN W. TEMPLE Telephone: 803-952-8648 Fax 803-952-7357 E-Mail: Matthew.Biasiny@SRS.gov	
18. Performer's Funds Availability Authorization Official's Signature: <i>John W. Temple</i> Date: 5/23/2014	
19. Performer's Cognizant Contracting Officer Signature: (Required for IEWOs > \$1M life of project) <i>[Signature]</i> Date: 5/23/2014	

Requirements Package Checklist for Inter-Entity Work Orders (IEWO)
"X" indicates item is mandatory with all requirement packages for IEWO actions

IEWO Number: MOSRV00115 _____ IEWO Revision & Date: 0 05/14/2014

IEWO Title: Technical Peer Review Assessment for Vapors Evaluation (SRNL) _____

RP Initiator: Brian Harkins _____

Y N/A

- 1. DOE Inter-Entity Work Order Form: Available on the Office of River Protection Intranet page under ORP Requirements and Package Forms
- 2. Statement of Work and/or Performance Objectives: Required for all new IEWOs and modifications thereto which change the Statement of Work or the Performance Objectives
- 3. Cost Estimate: Should be obtained from performing contractor
- 4. A description of deliverables and schedule
- 5. Government Furnished Property (GFP) List: Include nomenclature, DOE Barcode #, make, model, serial number, acquisition cost, and date of acquisition (if known). Indicate whether GFP is to be used on Government installation or removed to another location
- 6. Environmental, Safety and Health requirements
- 7. Security Clearances required
- 8. Quality Level (QL) of Work to be Performed:

QUALITY AFFECTING, QL-1

(Required for all new IEWOs and modifications thereto that change the Statement of Work or the Performance Objectives)

QL of ORP Project Work*:

QL-1: _____

QL-2: _____

Excluded Work Activities: N/A
(* Refer to ORP IP TRS-QSH-IP-10 for definitions of Quality Level 1, Quality Level 2, and Excluded Work Activities)

QA Approval: JERRY O. MAY _____
Printed Name/Signature

5/22/2014
Date

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

1. Work Order Number: MOSRV00115 Amendment Number: 0	2. Month/Year to be recorded: <i>(for use in DOE-DOE work only)</i> May-14		
Authorizer			
3. Authorizing Contractor or Field Office: DOE-Richland Operations Office (Office of River Protection)			
4. Authorizing Contractor or Field Office OPI Code: RL90	5. Allotment Symbol: RL9191		
6. Budget Analyst: Phil Dailey Telephone: 509-376-2050 E-Mail: phillip.dailey@rl.doe.gov			
7. ORP Technical Point of Contact Signature: Brian Harkins <i>Brian G. Harkins</i> Date: 5/22/14			
8. Authorizing Tank Farms Program Signature: Tom Fletcher <i>[Signature]</i> Date: 5/20/14			
9. Funds Availability Authorization Official's Signature: Phil Dailey Date:			
10. Authorizing Contracting Officer Signature: (Required for IEWO >\$1M life of project) Marc McCaskey Date:			
11. Scope of Work (attach additional sheets if needed): Technical Review for Vapors Evaluation (SRNL) The contractor (SRNL) will lead an Independent Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will review the current WRPS program and provide recommendations and identify further enhancements to WRPS programs and practices to eliminate or minimize worker exposures. See attached Statement of Work. 5/14/2014 - Providing \$1,000,000 of funding for develop and assessment plan within two weeks which will include: 1) Approach for conducting the assessment; 2) Team members and their qualifications; 3) Listing of the information required to perform the assessment; 4) Schedule (including site visits) 5) Cost estimate.			
12. Period of Performance: 5/01/2014 - 09/30/2014			
13. Billing and Budgetary Information: Address: "Accounts Payable - Work will be billed via VIPERS, with reference to Work Order Number" Funding titles: Fund Type.Appo Year.Allottee.Rpt Entity.Obj Cls.Program.Project.WFO.Local Use.Future Use Funding Source: 01250.2014.34.421301.25422.1110909.0001481.0000000.0000000.0000000			
Authority		Current Year	Cumulative
Previous Total		\$ -	\$ 0.00
Current Action		\$ 1,000,000.00	\$ 1,000,000.00
Revised Total		\$ 1,000,000.00	\$ 1,000,000.00
Performer			
14. Performing Contractor: Savannah River Nuclear Solutions, LLC			
15. Performing Contractor OPI Code: SRDO		16.	
17. Cognizant Contracting Officer: Matthew Biasiny Telephone: 803-952-8648 Fax 803-952-7357 E-Mail: Matthew.Biasiny@SRS.gov			
18. Performer's Funds Availability Authorization Official's Signature: Date:			
19. Performer's Cognizant Contracting Officer Signature: (Required for IEWOs > \$1M life of project) Date:			

**WASHINGTON RIVER PROTECTION SOLUTIONS
DOE INTER-ENTITY WORK ORDER (IEWO) REQUEST**

IEWO NUMBER: (to be assigned by DOE) _____

IEWO SCOPE / TITLE: Independent Expert Panel Study on Chemical Vapors at the Tank Farms

NATIONAL LAB: Savannah River National Laboratory

FIELD OFFICE: DOE-Richland Operations Office (Office of River Protection)

PERIOD OF PERFORMANCE: May 1, 2014 - Sept 30, 2014

THIS FUNDING AUTHORIZATION \$ 1,000,000.00

PRIOR AUTHORIZATIONS \$ _____

TOTAL FUNDS AUTHORIZED \$ 1,000,000.00

Fund Type Base TD&D

Baseline and Funds Control

Is the Budget for this scope included in the Approved Baseline? YES

If No, state why and/or state what authorizing document / BCR includes IEWO scope:

RPE-14-135 includes this scope

Work Breakdown Structure (WBS) Number: 5.1.5.2.9.26

Control Account Charge Number: 201792

Resource Code Where Budget Planned (21, 39M, etc.): 21

SIGNATURES

		DATE
Budget Analyst:	Alyson Chacon <u><i>Alyson Chacon</i></u>	<u>4/30/14</u>
	Print Name Signature	
Cost Account Manager:	Clint Wolfley <u><i>Clint Wolfley</i></u>	<u>4/30/14</u>
	Print Name Signature	
WRPS Technical POC:	Ray Skwarek <u><i>R Skwarek</i></u>	<u>4/30/14</u>
	Print Name Signature	
PPM&A Manager:	Steve Durfee <u><i>Steve Durfee</i></u>	<u>4/30/14</u>
	Print Name Signature	

A-8004-591 (REV 4)

STATEMENT OF WORK

Requisition #: 267157

Title: Technical Review for Vapors Evaluation (SRNL)

Revision Number: 2

Date: May, 20 2014

Prior SOW or Revision Date: May 20, 2014

1.0 Objective:

Washington River Protection Solutions (WRPS) requires the services of Savannah River National Laboratory (SRNL) to establish and oversee a team of subject matter experts to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy's Tank Farms and recommend actions to eliminate or mitigate vapor exposure levels.

2.0 Background/Introduction:

WRPS is evaluating the Tank Farms for chemical vapors as a result of recent incidents that have occurred with chemical vapors and odors. More than two dozen tank farm workers recently received medical attention during a short time span this spring following potential low level exposures to vapors emanating from the waste storage tanks. Vapor impacts to the workforce are not new and there has been an average of about 5 employees per month being affected by vapors requiring a medical assessment. While most worker affects have been short term in nature and have been rapidly returned to work, there is still considerable concern about short and long term potential affects. Hence WRPS has requested that this new study have an enhanced scope for analysis and recommendation beyond that of the two previous technical reviews of Hanford tank waste vapor policies and issues in 2008 and 2010.

3.0 Scope:

The contractor (SRNL) will lead a Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will review the current WRPS program and provide recommendations and identify further enhancements to WRPS programs and practices to eliminate or minimize worker exposures. The review should include, but not be limited to a:

- Potential for engineered controls or equipment to further reduce the potential for worker exposure to vapors and reduce risk
- WRPS Industrial Hygiene program and related procedures
- Technical basis for monitoring and controlling Tank Farms vapors
- Implementation and effectiveness of prior vapor affects and their recommendations (Sept 2008 and Oct 2010)
- IH instrumentation usage and data analysis usage
- Workforce communications of chemical hazards, IH program sampling results, and vapor events
- Current policies and practices associated with Tank Farm vapors

- Worker protections, preventative measures, and responses to vapor exposures
- Consideration of immediate and potential chronic and/or latent health effects of Tank Farm vapor exposures
- New technology for monitoring, preventing and responding to chemical vapor releases
- Chemical vapor data collection including technical basis and sampling methodology
- Interviewing current and former workers about their concerns about vapor exposure
- Interviewing current and former workers about working conditions, vapor exposures, and event response actions
- Potentially interviewing or acquiring inputs from the public and/or former tank farm workers
- Tank Farm vapors program in regards to 10 CFR 851

4.0 Deliverables:

The contractor (SRNL) shall submit a project plan within two weeks of the start date. This plan should include the following information: 1). Approach for conducting the project ; 2). Team members and their qualifications; 3). Listing of the information required to perform the project; 4) Schedule (including site visits) and 5). Cost estimate. The final report with recommendations for improvement of the chemical vapors target date for completion is September 30, 2014. A draft report shall be submitted for factual accuracy review no later than two weeks prior the submittal of the final report assuming an end date of September 30, 2014 or September 16, 2014. In addition, the review team should be prepared to make a presentation (s) to WRPS senior management, ORP and to the WRPS employees.

5.0 Acceptance Criteria:

Acceptance shall be based on validation by the WRPS POC that the contractor has provided requested input.

The project plan and report must meet established applicable WRPS procedures for control and review of work products identified in Section 6.1 below. Acceptance shall be based on validation by the WRPS POC that the contractor has addressed all reviewer comments.

6.0 Configuration Management and Standards

6.1 Configuration Management Requirements:

New or revised Technical Documents shall be prepared in accordance with TFC-BSM-AD-STD-02, Editorial Standards for Technical Documents and meet the document release criteria found in Table 3 of TFC-ENG-DESIGN-C-25, Technical Document Control.

6.2 Applicable Standards

APPLICABLE ENGINEERING CODES AND TOC ENGINEERING STANDARDS & PROCEDURES

	Number	Title
1.	TFC-BSM-AD-STD-02,	Editorial Standards for Technical Documents
2.	TFC-ENG-DESIGN-C-25	Technical Document Control

7.0 ESH&Q Requirements

7.1 Quality Assurance Requirements:

This work scope does not include safety significant system, structure, or component deliverables; and the scope does not include any deliverable that will become design input to a safety significant system, structure, or component.

This scope of work is to provide technical expertise to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy's Tank Farms.

The program applied to this scope of work shall be equivalent to the following requirements from the American Society of Mechanical Engineers, NQA-1-2008 *Quality Assurance Requirements for Nuclear Facility Applications*, including NQA-1a-2009 Addenda, or later version. Those quality program requirements that are identified as being applicable to this scope of work are listed below.

NQA-1 Criteria	Title	All Sections	Specific Sections
Part I, Req. 1	Organization		100 & 300
Part I, Req. 2	Quality Assurance Program		100, 200, 300 (First paragraph only)
Part I, Req. 3	Design Control		N/A
Part I, Req. 4	Procurement Document Control		N/A
Part I, Req. 5	Instructions, Procedures, and Drawings	X	
Part I, Req. 6	Document Control	X	
Part I, Req. 7	Control of Purchased Items and Services		N/A
Part I, Req. 8	Identification and Control of Items		N/A
Part I, Req. 9	Control of Processes		N/A
Part I, Req. 10	Inspection		N/A
Part I, Req. 11	Test Control		N/A
Part I, Req. 12	Control of Measuring and Test Equipment		N/A
Part I, Req. 13	Handling, Storage, and Shipping		N/A
Part I, Req. 14	Inspection, Test, and Operating Status		N/A
Part I, Req. 15	Control of Nonconforming Items		N/A
Part I, Req. 16	Corrective Action	X	
Part I, Req. 17	Quality Assurance Records		100, 200, 300, 800
Part I, Req. 18	Audits	X	

7.2.1 Supplier Quality Assurance Program:

The Contractor's Quality Assurance Program shall be subject to review at all times, including prior to award.

7.2.2 Supplier Quality Assurance Program Changes

The Contractor shall, during the performance of this subcontract, submit proposed changes to their approved quality assurance program to the WRPS Buyer for review and concurrence prior to implementation.

7.2.3 Applicable ES&H Requirements:

No On Site Work Provisions apply.

8.0 Verification/Hold Points:

There are no specific Verification/Hold Points associated with this scope of work. A review of the draft report for factual accuracy is expected.

9.0 Reserved

10.0 Work Location/Potential Access Requirements:

Work locations will include 2440 and 2425 Stevens, Richland, WA or closely associated facilities. WRPS will provide the Affiliate with office space with Hanford Local Area Network (HLAN) computer and telephone in the Richland office facilities when they are on-site.

11.0 Training:

Review team members will be considered as visitor badged personnel.

All subcontractor staff supporting this task shall complete the following training as needed for site and facility access:

- Hanford General Employee Training (HGET) Hanford Site Standard
- Tank Operations Contractor Specific HGET
- Tank Farms Environmental Management System (EMS) Overview
- Tank Farm Facility Orientation and FEHIC - CBT

Specific training or facility information will be provided on a case by case basis depending on the selected locations and access requirements. Overview information on the WRPS Assessment Process requirements will be provided at an initial assessment team meeting.

12.0 Qualifications:

Contractor personnel provided under this subcontract shall possess the qualifications, certifications, and any other attributes required to complete the assigned work with emphasis of expertise in their associated field.

13.0 Special Requirements:

There are no special requirements associated with this scope of work.

Hanford Site Access

Hanford site access will be required for this work.

14.0 Reporting/Administration:

Subcontractor information including reports, presentations, and other documents shall be submitted in either hard copy or electronic format as designated by WRPS. If electronic formatted documents are required, the documents must be viewable using Microsoft® Windows®, Microsoft® Office, or Adobe® Acrobat® software.

15.0 Workplace Substance Abuse Program Requirements:

A Workplace Substance Abuse Program is not required for this SOW.

16.0 WRPS Point of Contact (POC)

Bob Wilkinson, (WRPS), 509-373-9841; Robert_E_Wilkinson@rl.gov

Smith, Kevin W (ORP)

From: Smith, Kevin W (ORP)
Sent: Monday, April 21, 2014 9:01 AM
To: Harkins, Brian A
Subject: Re: Final MOU docs

Please see me.

Sent from my iPad

On Apr 21, 2014, at 8:34 AM, "Harkins, Brian A" <Brian_A_Harkins@orp.doe.gov> wrote:

Documents sent to Scott.

Sent from my iPad

On Apr 21, 2014, at 8:30 AM, "Stubblebine, Scott D" <Scott.Stubblebine@rl.doe.gov> wrote:

No documents attached for review. Once received, I will provide (b)(5)

(b)(5)

*Attorney – Client Privileged; Attorney Work Product;
Not Subject to Discovery or Release Under FOIA;
Prepared in Anticipation of Litigation;
Do Not Disclose - Confidential*

Scott D. Stubblebine
Assistant Chief Counsel for the Office of River Protection
P.O. Box 450, MSIN H6-60
Richland, WA 99353
509.372.0479 (office)
(b)(6) (cell)
509.372.2784 (fax)

From: Smith, Kevin W (ORP)
Sent: Saturday, April 19, 2014 12:13 PM
To: Olson, Dave; Harkins, Brian A
Cc: Dowell, Jonathan A; Fletcher, Thomas W; Stubblebine, Scott D
Subject: Re: Fwd: Final MOU docs

Dave ... Per my earlier email ... I just read ... (b)(5)

(b)(5)

would like to discuss this again with you. I would also like (b)(5)

(b)(5) Kevin

From: Olson, Dave
Sent: Saturday, April 19, 2014 10:54 AM
To: Harkins, Brian A
Cc: Smith, Kevin W (ORP); Dowell, Jonathan A; Fletcher, Thomas W
Subject: Fwd: Final MOU docs

Although Carpenter, on behalf of the Hanford Challenge, signed off this MOU on Friday, I told Jon Brock I was not yet ready to do so but would seek to sign early next week (Monday or Tuesday) so the expert panel could start. I want their first task to be analytical insight provided to me as I decide when/if/how (b)(5)

(b)(5)

I have requested that my CO and Procurement Manager work with you and their ORP functional counterparts on Monday to assure we are covered by the contract and by procurement rules. Because there is a portion of the expert panel review scope that assesses the medical provider, I also asked that they touch base with RI, since I

(b)(5)

RL, not OKO. I believe Shupe has been the point of contact on this with Brock.

Please review the Roles and Responsibilities document and the MOU (Statement of Work) document and let me know Monday if you have any concerns. In addition to the 2 IH toxicology experts from the 2010 review who are committed to this 2014 update review, Bill Garde has been added at my request to be an expert panelist on how the vapor issue may be affecting safety culture, and I have asked for a fourth member to be added from Harborview to provide the occupational medicine expert review of HPMC.

Timing is of the essence in approval of the MOU and public announcement of the start of this expert panel review, especially since it has been conceptually talked about publicly for a few weeks and Hanford Challenge has already signed on in support. (b)(5) (b)(5)

(b)(5)

Thanks for your continued support to help us fully and finally address this important and lingering safety issue in the Tank Farms.

- Dave Olson

Begin forwarded message:

From: "Jon Brock" (b)(6)
To: "Olson, Dave" <Dave.Olson@rl.gov>
Cc: "Don Hardy" (b)(6), "Killoy, Steven E" <Steven.E.Killoy@rl.gov>, "Tom Carpenter" <tomc@hanfordchallenge.org>
Subject: FW: Final MOU docs

Dave

Here is the MOU, which I believe is ready for signature of the parties, subject to your final review.

Steve and Don will call you shortly to review it with you. I am available this afternoon in the Tri Cities and over the weekend by phone.

Thank you for your cooperation.

Jon

From: Sherry [mailto:(b)(6)]
Sent: Friday, April 18, 2014 1:24 PM
To: Jon Brock; Don Hardy; Steve Killoy
Subject: Final MOU docs

From: Harkins, Brian A
Sent: Tuesday, May 06, 2014 3:43 PM
To: Skwarek, Raymond J
Subject: FW: Vapors SOW Rev 2 (2).docx
Attachments: Vapors SOW Rev 2 (2) Rev1.docx

Ray,

I have been waiting on comments from Tom Fletcher but he has been tied up with other things. Here are my comments. If Tom sends me his I will pass them on. Sorry for the delay.

From: Smith, Kevin W (ORP)
Sent: Sunday, May 04, 2014 7:12 PM
To: Harkins, Brian A
Cc: Fletcher, Thomas W; Dowell, Jonathan A
Subject: Fw: Vapors SOW Rev 2 (2).docx

See below.

From: Kevin & (b)(6) Smith [mailto:(b)(6)]
Sent: Sunday, May 04, 2014 06:27 PM
To: Smith, Kevin W (ORP)
Subject: RE: Vapors SOW Rev 2 (2).docx

Brian ... please look at (b)(5) Thx .. Kevin

From: Harkins, Brian A
Sent: Thursday, May 01, 2014 4:49 PM
To: Smith, Kevin W (ORP)
Subject: Vapors SOW Rev 2 (2).docx

Kevin,

Attached is the TF Vapor SOW with the changes I made shown with track changes.

TEMPLATE "C-3"

STATEMENT OF WORK

Requisition #:

Title: Technical Peer Review (b)(5) for Vapors Evaluation (SRNL)

Revision Number: 0

Date: May 2014

Prior SOW or Revision Date: (b)(5)

1.0 Objective:

Washington River Protection Solutions (WRPS) requires the services of Savannah River National Laboratory (SRNL) to establish and oversee a team (b)(5) of external experts to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy's Tank Farms and recommend actions to eliminate (b)(5) (b)(5) exposures to levels (b)(5)

2.0 Background/Introduction:

WRPS is evaluating the Tank Farms for chemical vapors as a result of recent incidents that have occurred with chemical vapors and odors. More than two dozen tank farm workers recently received medical attention during a short time span this spring following (b)(5) exposures to vapors emanating from the waste storage tanks. Vapor impacts to the workforce are not new and there has been an average of about 5 employees per month being affected by vapors requiring a medical assessment. While most worker affects have been short term in nature and have been rapidly returned to work, there is still considerable concern about short and long term potential affects. Hence WRPS has requested that this new study have an enhanced scope for analysis and recommendation (b)(5) beyond that of the two previous technical reviews of Hanford tank waste vapor policies and issues in 2008 and 2010.

3.0 Scope:

The contractor (SRNL) will lead an Independent Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will (b)(5) recommendations and identify further enhancements to WRPS programs and practices to eliminate or minimize worker exposures (b)(5)

(b)(5)

- Potential for engineered controls or equipment to further reduce the potential for worker exposure to vapors and reduce risk.
- (b)(5) WRPS Industrial Hygiene program and related procedures
- (b)(5) technical basis for monitoring and controlling of Tank Farms vapors
- (b)(5) implementation and effectiveness of prior (b)(5) vapor affects and their recommendations (Sept 2008 and Oct 2010) (b)(5)

- (b)(5) III instrumentation usage and data analysis (b)(5)
(b)(5)
- (b)(5) Workforce communications (b)(5)
(b)(5) chemical hazards (b)(5) III program sampling results, and vapor events
- Current (b)(5) policies (b)(5)
(b)(5) and practices associated with Tank Farm vapors
- (b)(5)
- (b)(5) Worker protections, preventative measures, and responses to vapor exposures
- (b)(5)
- (b)(5)
- (b)(5)
- (b)(5) Chemical vapor data collection
(b)(5)
(b)(5) including technical basis and sampling methodology.
- Interviewing current and former workers about their concerns about vapor exposure.
- Interviewing current and former workers about working conditions, vapor exposures, and event response actions.
- Potentially interviewing or acquiring inputs from the public and/or former tank farm workers.
- Tank Farm vapors program compliance to 10 CFR 851.

4.0 Deliverables:

The contractor (SRNI.) shall submit (b)(5) within two weeks of the start date. This plan should include the following information: 1). Approach for conducting the (b)(5) 2). Team members and their qualifications; 3). Listing of the information required to perform the (b)(5) 4) Schedule (including site visits) and 5). Cost estimate. The final (b)(5) report with (b)(5) for improvement - the (b)(5) chemical vapors program shall be submitted no later than September 30, 2014. A draft (b)(5) report shall be submitted for factual accuracy review - two weeks prior the (b)(5) submittal of the final report - September 16, 2014. In addition, the assessment team should be prepared to make a presentation (s) to WRPS senior management, ORP and to the WRPS employees (b)(5)

(b)(5)

5.0 Acceptance Criteria:

Acceptance shall be based on validation by the WRPS POC that the contractor has provided requested input. (b)(5)

(b)(5)

The (b)(5) plan must meet established applicable WRPS procedures for control and review of work products identified in Section 6.1 below. Acceptance shall be based on validation by the WRPS POC that the contractor has (b)(5) all reviewer comments.

6.0 Configuration Management and Standards

6.1 Configuration Management Requirements:

New or revised Technical Documents shall be prepared in accordance with TFC-BSM-AD-STD-02, Editorial Standards for Technical Documents and meet the document release criteria found in Table 3 of TFC-ENG-DESIGN-C-25, Technical Document Control.

6.2 Applicable Standards

APPLICABLE ENGINEERING CODES AND TOC ENGINEERING STANDARDS & PROCEDURES

	Number	Title
1.	TFC-BSM-AD-STD-02,	Editorial Standards for Technical Documents
2.	TFC-ENG-DESIGN-C-25	Technical Document Control

7.0 (b)(5)

(b)(5)

7.1 Quality Assurance Requirements:

This work scope does not include safety significant system, structure, or component deliverables; and the scope does not include any deliverable that will become design input to a safety significant system, structure, or component.

This scope of work is to provide technical expertise to examine hazardous chemical vapors management and related worker protection measure at the U.S. Department of Energy's Tank Farms. (b)(5)

(b)(5)

(b)(5)

(b)(5) The program applied to this scope of work shall be equivalent to the following requirements from the American Society of Mechanical Engineers (b)(5) *Quality Assurance Requirements for Nuclear Facility Applications*, including (b)(5) and (b)(5)

NQA-1 Criteria	Title	All Sections	Specific Sections
Part I, Req. 1	Organization		100 & 300

Part I, Req. 2	Quality Assurance Program		100, 200, 300 (First paragraph only)
Part I, Req. 3	Design Control		N/A
Part I, Req. 4	Procurement Document Control		N/A
Part I, Req. 5	Instructions, Procedures, and Drawings	X	
Part I, Req. 6	Document Control	(b)(5)	
Part I, Req. 7	Control of Purchased Items and Services		N/A
Part I, Req. 8	Identification and Control of Items		N/A
Part I, Req. 9	Control of Processes		N/A
Part I, Req. 10	Inspection		N/A
Part I, Req. 11	Test Control		N/A
Part I, Req. 12	Control of Measuring and Test Equipment		N/A
Part I, Req. 13	Handling, Storage, and Shipping		N/A
Part I, Req. 14	Inspection, Test, and Operating Status		N/A
Part I, Req. 15	Control of Nonconforming Items		N/A
Part I, Req. 16	Corrective Action	X	
Part I, Req. 17	Quality Assurance Records		100
Part I, Req. 18	Audits	(b)(5)	

7.1.1 Supplier Quality Assurance Program:

The Contractor's Quality Assurance Program shall be subject to review at all times, including prior to award.

7.1.2 Supplier Quality Assurance Program Changes

The Contractor shall, during the performance of this subcontract, submit proposed changes to their approved quality assurance program to the WRPS Buyer for review and concurrence prior to implementation.

7.1.3

(b)(5)

(b)(5)

7.1.4 Applicable ES&H Requirements:

No On Site Work Provisions apply.

8.0 Verification/Hold Points:

There are no specific Verification/Hold Points associated with this scope of work.

9.0 Reserved

10.0 Work Location/Potential Access Requirements:

(b)(5) work location will be 2440 and 2425 Stevens, Richland, WA. (b)(5)

(b)(5) WRPS will provide the Affiliate with office space with

Hanford Local Area Network (HLAN) computer and telephone in the Richland office facilities when they are on-site.

11.0 Training:

(b)(5)

All subcontractor staff supporting this task shall complete the following training as needed for site and facility access:

- Hanford General Employee Training (HGET) Hanford Site Standard
- Tank Operations Contractor Specific HGET
- Tank Farms Environmental Management System (EMS) Overview
- Tank Farm Facility Orientation and FEHIC – CBT

Specific training or facility information will be provided on a case by case basis depending on the selected locations and access requirements. Overview information on the WRPS Assessment Process requirements will be provided at an initial assessment team meeting.

12.0 Qualifications:

(b)(5)

13.0 Special Requirements:

There are no special requirements associated with this scope of work.

Hanford Site Access

Hanford site access will be required for this work.

14.0 Reporting/Administration:

If applicable, Subcontractor information including reports and other documents shall be submitted in either hard copy or electronic format as designated by WRPS. If electronic formatted documents are required, the documents must be viewable using Microsoft® Windows®, Microsoft® Office, or Adobe® Acrobat® software.

15.0 Workplace Substance Abuse Program Requirements:

A Workplace Substance Abuse Program is not required for this SOW.

16.0 WRPS Point of Contact (POC)

Ray Skwarek, (WRPS), 509-372-9117; Raymond_J_Skwarek@rl.gov

From: Skwarek, Raymond J
Sent: Thursday, May 01, 2014 10:05 AM
To: Harkins, Brian A
Subject: RE: vapor panel scope of work
Attachments: Vapors SOW Rev 2.docx

Attached. The IEWO containing this scope of work was provided to ORP for approval earlier this morning.

Let me know or call if you want to talk or meet today.

Ray

(b)(6)

From: Harkins, Brian A
Sent: Thursday, May 01, 2014 9:49 AM
To: Skwarek, Raymond J
Subject: vapor panel scope of work

Ray,

Can you please share the vapor panel scope of work? I need to work with HSS (b)(5)

(b)(5)

TEMPLATE "C-3"

STATEMENT OF WORK

Requisition #:

Title: Technical Peer Review (b)(5) for Vapors Evaluation (SRNL)

Revision Number: 0

Date: May 2014

Prior SOW or Revision Date: (b)(5)

1.0 Objective:

Washington River Protection Solutions (WRPS) requires the services of Savannah River National Laboratory (SRNL) to establish and oversee a (b)(5) of external experts to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy's Tank Farms.

2.0 Background/Introduction:

WRPS is evaluating the Tank Farms for chemical vapors as a result of recent incidents that have occurred with chemical vapors and odors. More than two dozen tank farm workers received medical attention (b)(5) following (b)(5) exposures to vapors emanating from the waste storage tanks. WRPS has requested that this new study have an enhanced scope for analysis and recommendation beyond that of the two previous technical reviews of Hanford tank waste vapor policies and issues in 2008 and 2010.

3.0 Scope:

The contractor (SRNL) will lead an Independent Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will provide recommendations and identify further enhancements to WRPS programs and practices:

- (b)(5) WRPS Industrial Hygiene program and related procedures
- (b)(5) technical basis for monitoring and control
- (b)(5) recommendations (Sept 2008 and Oct 2010)
(b)(5)
- (b)(5) IH instrumentation and analysis (b)(5)
(b)(5)
- (b)(5) communications (b)(5)
(b)(5) Chemical (b)(5) IH program and vapor events
- Implications of recent vapor exposures on the adequacy of present policies and their implementation
- (b)(5)

- (b)(5) worker protections, preventative measures, and responses to vapor exposures (b)(5)
(b)(5)
- (b)(5) technology for monitoring, preventing and responding to chemical vapor releases, (b)(5)
(b)(5)
- (b)(5)
- (b)(5) chemical vapor data (b)(5)
(b)(5)
(b)(5) technical basis and sampling methodology.

4.0 Deliverables:

The contractor (SRNL) shall submit (b)(5) plan within two weeks of the start date. This plan should include the following information: 1). Approach for conducting the (b)(5) 2). Team members and their qualifications; 3). Listing of the information required to perform the (b)(5) 4) Schedule (including site visits) and 5). Cost estimate. The final (b)(5) report with (b)(5) recommendations for improvement (b)(5) the (b)(5) chemical vapors (b)(5) September 30, 2014. A draft (b)(5) report shall be submitted for factual accuracy review (b)(5) two weeks prior the (b)(5) submittal of the final report or September 16, 2014. In addition, the (b)(5) team should be prepared to makes a presentation (s) to WRPS senior management, ORP and to the WRPS employees (b)(5)

5.0 Acceptance Criteria:

Acceptance shall be based on validation by the WRPS POC that the contractor has provided requested input. (b)(5)
(b)(5)

The (b)(5) plan must meet established applicable WRPS procedures for control and review of work products identified in Section 6.1 below. Acceptance shall be based on validation by the WRPS POC that the contractor has (b)(5) all reviewer comments.

6.0 Configuration Management and Standards

6.1 Configuration Management Requirements:

New or revised Technical Documents shall be prepared in accordance with TFC-BSM-AD-STD-02, Editorial Standards for Technical Documents and meet the document release criteria found in Table 3 of TFC-ENG-DESIGN-C-25, Technical Document Control.

6.2 Applicable Standards

APPLICABLE ENGINEERING CODES AND TOC ENGINEERING STANDARDS & PROCEDURES

	Number	Title
1.	TFC-BSM-AD-STD-02,	Editorial Standards for Technical Documents

2.	TFC-ENG-DESIGN-C-25	Technical Document Control
----	---------------------	----------------------------

7.0 ESH&Q Requirements

(b)(5)

7.1 Quality Assurance Requirements:

This work scope does not include safety significant system, structure, or component deliverables; and the scope does not include any deliverable that will become design input to a safety significant system, structure, or component.

This scope of work is to provide technical expertise to examine hazardous chemical vapors management and related worker protection measure at the U.S. Department of Energy's Tank Farms. (b)(5)

(b)(5)

(b)(5)

(b)(5) The program applied to this scope of work shall be equivalent to the following requirements from the American Society of Mechanical Engineers (b)(5) *Quality Assurance Requirements for Nuclear Facility Applications*, including (b)(5) and (b)(5)

NQA-1 Criteria	Title	All Sections	Specific Sections
Part I, Req. 1	Organization		100 & 300
Part I, Req. 2	Quality Assurance Program		100, 200, 300 (First paragraph only)
Part I, Req. 3	Design Control		N/A
Part I, Req. 4	Procurement Document Control		N/A
Part I, Req. 5	Instructions, Procedures, and Drawings	X	
Part I, Req. 6	Document Control	(b)(5)	
Part I, Req. 7	Control of Purchased Items and Services		N/A
Part I, Req. 8	Identification and Control of Items		N/A
Part I, Req. 9	Control of Processes		N/A
Part I, Req. 10	Inspection		N/A
Part I, Req. 11	Test Control		N/A
Part I, Req. 12	Control of Measuring and Test Equipment		N/A
Part I, Req. 13	Handling, Storage, and Shipping		N/A
Part I, Req. 14	Inspection, Test, and Operating Status		N/A
Part I, Req. 15	Control of Nonconforming Items		N/A
Part I, Req. 16	Corrective Action	X	
Part I, Req. 17	Quality Assurance Records		100
Part I, Req. 18	Audits	(b)(5)	

7.1.1 Supplier Quality Assurance Program:

The Contractor's Quality Assurance Program shall be subject to review at all times, including prior to award.

7.1.2 Supplier Quality Assurance Program Changes

The Contractor shall, during the performance of this subcontract, submit proposed changes to their approved quality assurance program to the WRPS Buyer for review and concurrence prior to implementation.

7.1.3 (b)(5)

(b)(5)

7.1.4 Applicable ES&H Requirements:

No On Site Work Provisions apply.

8.0 Verification/Hold Points:

There are no specific Verification/Hold Points associated with this scope of work.

9.0 Reserved

10.0 Work Location/Potential Access Requirements:

(b)(5) work location will be 2440 and 2425 Stevens, Richland, WA. (b)(5)
(b)(5) WRPS will provide the Affiliate with office space with Hanford Local Area Network (HLAN) computer and telephone in the Richland office facilities when they are on-site.

11.0 Training:

(b)(5)

All subcontractor staff supporting this task shall complete the following training as needed for site and facility access:

- Hanford General Employee Training (HGET) Hanford Site Standard
- Tank Operations Contractor Specific HGET
- Tank Farms Environmental Management System (EMS) Overview
- Tank Farm Facility Orientation and FEHIC – CBT

Specific training or facility information will be provided on a case by case basis depending on the selected locations and access requirements. Overview information on the WRPS Assessment Process requirements will be provided at an initial assessment team meeting.

12.0 Qualifications:

(b)(5)

(b)(5)

13.0 Special Requirements:

There are no special requirements associated with this scope of work.

Hanford Site Access

Hanford site access will be required for this work.

14.0 Reporting/Administration:

If applicable, Subcontractor information including reports and other documents shall be submitted in either hard copy or electronic format as designated by WRPS. If electronic formatted documents are required, the documents must be viewable using Microsoft® Windows®, Microsoft® Office, or Adobe® Acrobat® software.

15.0 Workplace Substance Abuse Program Requirements:

A Workplace Substance Abuse Program is not required for this SOW.

16.0 WRPS Point of Contact (POC)

Ray Skwarek, (WRPS), 509-372-9117; Raymond_J_Skwarek@rl.gov

From: Skwarek, Raymond J
Sent: Thursday, May 01, 2014 2:04 PM
To: Mendoza, Estella (Stella)
Cc: Olson, Dave; Holloway, Jerry N; Burrows, Christopher; Harkins, Brian A
Subject: Email addresses for SRNL participants

Stella:

Here are the two SRNL participants. I'll ask them to forward your invitation to any others from the lab who may also be phoning in.

Bill.wilmarth@srnl.doe.gov

Sharon.marra@srnl.doe.gov

Thanks for getting this set up.

Ray

From: Smith, Kevin W (ORP)
Sent: Friday, April 11, 2014 2:50 PM
To: Olson, Dave
Subject: RE: Discussion items from today's meeting

Thanks Dave. Very helpful.

Kevin

From: Olson, Dave
Sent: Friday, April 11, 2014 2:39 PM
To: Smith, Kevin W (ORP); Olds, Theodore E (Erik)
Subject: FW: Discussion items from today's meeting

Kollasch is the HPMC Manager.

From: Olson, Dave
Sent: Friday, April 11, 2014 2:38 PM
To: Kollasch, Douglas J
Cc: Page, Rosalyn S; Holloway, Jerry N; McDonald, John A
Subject: Discussion items from today's meeting

Thanks again for meeting today on a variety of subjects, focused mainly on the recent vapor exposure responses. Please let me know if I missed the target on any of these actions.

1. By April 11, WRPS will provide a copy of the draft MOU between WRPS and the Hanford Concerns Council that defines the scope and timing of an independent expert panel review of the vapor issues and the chemical vapors management program. Jon Brock, HCC Chair will be requested to contact HPMC for expectations about involvement in this review. (WRPS Lead will be Dave Olson)
2. By April 11, WRPS will enact a policy that any planned internal or external communication (written releases or video interviews) that may refer to HPMC as a medical provider for WRPS employees will be vetted with HPMC Management for awareness and possible participation. (WRPS Lead will be Jerry Holloway)
3. On April 14 at 0900 in 2440 Steven Center, Dr. Sandy Rock will support WRPS in a preparation meeting for the April 14 evening DOE EM Town Hall meeting in Richland so a consistent and holistic response is ready for vapor related questions. Dr. Rock will also attend the Town Hall meeting with Olson and McDonald of WRPS. (WRPS Lead is Jerry Holloway)
4. By April 15, WRPS will provide to HPMC a draft of a planned presentation to local stakeholders such as the Visitor and Convention Bureau, Chambers of Commerce, and Hanford Communities Group on the topic of vapor issues and response. WRPS and HPMC will then jointly provide these briefings by May 9. (WRPS Lead will be Jerry Holloway)
5. By April 15, WRPS will work with HPMC to schedule an information session by Dr. Sandy Rock of HPMC with WRPS employees affected by the recent vapor exposure issues to also include union stewards and safety reps. This action and action 6 will include a fact sheet on the steps HPMC and the employee take when they report a potential or actual vapor exposure requiring medical

provider assessment through release to work. HPMC will then provide this information briefing by April 23. (WRPS Lead will be Ros Page)

6. By April 24, HPMC will reach out to and conduct an information session with the HAMTC President to respond to concerns about the approach to worker treatment for potential vapor exposures. (HPMC Lead will be Kollasch)

From: Harkins, Brian A
Sent: Tuesday, April 29, 2014 1:38 PM
To: Skwarek, Raymond J
Subject: RE: SRNL review team

Any word on (b)(5)

From: Skwarek, Raymond J
Sent: Tuesday, April 29, 2014 1:23 PM
To: Olson, Dave; Harkins, Brian A
Subject: SRNL review team

(b)(5)

He was aware of the press release announcing the SRNL review. It had been sent to him by the HCC.

Ray

From: ^ORP Office of Communications
Sent: Friday, April 25, 2014 3:25 PM
Subject: Savannah River National Laboratory to Lead Independent Expert Review of Chemical Vapors and Worker Protection at Tank Farms
Attachments: 14-048, SRNL Hanford Vapor Review.pdf

ANNOUNCEMENT

Department of Energy
Office of River Protection
P.O. Box 450
Richland, Washington 99352

ORP No.: 14-048

Issued: 4-25-2014

To: All ORP Employees and Support Staff

Subject: Savannah River National Laboratory to Lead Independent Expert Review of Chemical Vapors and Worker Protection at Tank Farms

Today, the Savannah River National Laboratory (SRNL) announced they will oversee a panel of independent experts reviewing Washington River Protection Solutions LLC (WRPS) management of the chemical vapors program. The Office of River Protection (ORP) encouraged WRPS to explore a wide range of alternatives to help resolve the tank vapor concerns at the Hanford site. The objective of the independent panel is to make recommendations to further protect workers in the tank farms. WRPS is focused on expeditiously moving forward with this initiative designed to complement a wide range of actions to minimize worker exposure. ORP supports the decision to have the review led by SRNL, a national laboratory with the resources needed to assemble a group of credible experts to conduct this review and make independent recommendations. The press release from SRNL is attached.

From: Skwarek, Raymond J
Sent: Monday, April 28, 2014 2:09 PM
To: Harkins, Brian A
Subject: FW: Important Question - Please Read
Attachments: ATT00001.htm

Here is the email string, however, I see now that you were included. Again (b)(5)

This topic might come up at the public meeting tomorrow night, so we'll want to make sure we all have the same information.

Ray

From: Olson, Dave
Sent: Saturday, April 26, 2014 6:48 PM
To: Skwarek, Raymond J
Cc: Holloway, Jerry N
Subject: Fwd: Important Question - Please Read

Let's discuss on Monday morning. We will need to stay clean on scope and contract, as well as figuring out how to cover this piece which was not on the press release of agreed to by SRNI. We will need resolution before Tuesday night.

Sent from my iPhone

Begin forwarded message:

From: "Dowell, Jonathan A" <Jonathan_A_Dowell@orp.doe.gov>
Date: April 26, 2014 at 6:19:40 PM PDT
To: "Smith, Kevin W (ORP)" <Kevin_W_Smith@orp.doe.gov>
Cc: "Olds, Theodore E (Erik)" <Theodore.E.Olds@orp.doe.gov>, "Harkins, Brian A" <Brian_A_Harkins@orn.doe.gov>, "Olson, Dave" <Dave.Olson@rl.gov>, Jonathan Dowell <jdsbman@yahoo.com>
Subject: Fwd: Important Question - Please Read

Kevin - (b)(5) I believe we should be able to (b)(5) JD

Begin forwarded message:

From: "Shoop, Doug S" <doug.shoop@rl.doe.gov>
Date: April 26, 2014 at 1:04:29 PM PDT
To: "Flynn, Karen L" <karen.flynn@rl.doe.gov>, "Dowell, Jonathan A" <Jonathan_A_Dowell@orp.doe.gov>
Subject: Re: Important Question - Please Read

Karen, I have discussed with JD and we have concluded that the (b)(5)
(b)(5)
(b)(5)

Understanding you are on travel next week, could you please provide JD the (b)(5)

Please don't hesitate to let me know if you have any questions or concerns.
Thank you
Doug

Sent from my iPad

On Apr 26, 2014, at 11:00 AM, 'Shoop, Doug S' <doug.shoop@rl.doe.gov> wrote:

Thanks Karen - I plan to discuss with JD today - I will obviously get back with you - the (b)(5)

(b)(5)

Thanks
Doug

Sent from my iPad

On Apr 26, 2014, at 10:51 AM, "Flynn, Karen L." <karen.flynn@rl.doe.gov> wrote:

(b)(5)

Sent from my iPad

On Apr 26, 2014, at 12:32 PM, "Shoop, Doug S" <doug.shoop@rl.doe.gov> wrote:

Thanks Karen (b)(5)

(b)(5)

Thanks

Doug

Sent from my iPad

On Apr 26, 2014, at 10:28 AM, "Flynn, Karen L" <karen.flynn@rl.doe.gov> wrote:

Doug,

What I know is that (b)(5)

(b)(5)

Thanks, Karen

Sent from my iPad

On Apr 26, 2014, at 9:16 AM, "Shoop, Doug S" <doug.shoop@rl.doe.gov> wrote:

Karen, do you know why the (b)(5)

(b)(5)

Thank you

Doug

Sent from my iPad

Begin forwarded message:

From: "Lutz, Karen" <karen.lutz@rl.doe.gov<mailto:karen.lutz@rl.doe.gov>>

Date: April 25, 2014 at 3:39:06 PM PDT

To: "Shoop, Doug S" <doug.shoop@rl.doe.gov<mailto:doug.shoop@rl.doe.gov>>, "Flynn, Karen L" <karen.flynn@rl.doe.gov<mailto:karen.flynn@rl.doe.gov>>

Cc: "Hardy, Cameron M" <cameron.hardy@rl.doe.gov<mailto:cameron.hardy@rl.doe.gov>>

Subject: Fwd: Savannah River National Laboratory to Lead Independent Expert Review of Chemical Vapors and Worker Protection at Tank Farms

FYI - Karen, checking to see if you were able to find out about (b)(5)

Thanks, Karen

Sent from my iPad

Begin forwarded message:

From: ^ORP Office of Communications <ORP_Office_of_Communications@rl.gov<mailto:ORP_Office_of_Communications@rl.gov>>

Date: April 25, 2014 at 3:25:09 PM PDT

Subject: Savannah River National Laboratory to Lead Independent Expert Review of Chemical Vapors and Worker Protection at Tank Farms

ANNOUNCEMENT

Department of Energy

ORP No: 14-048

Office of River Protection

P.O. Box 450

Richland, Washington 99352

Issued: 4-25-2014

To:

All ORP Employees and Support Staff

Subject:

Savannah River National Laboratory to Lead Independent Expert Review of Chemical Vapors and Worker Protection at Tank Farms

Today, the Savannah River National Laboratory (SRNL) announced they will oversee a panel of independent experts reviewing Washington River Protection Solutions LLC (WRPS) management of the chemical vapors program. The Office of River Protection (ORP) encouraged WRPS to explore a wide range of alternatives to help resolve the tank vapor concerns at the Hanford site.

The objective of the independent panel is to make recommendations to further protect workers in the tank farms. WRPS is focused on expeditiously moving forward with this initiative designed to complement a wide range of actions to minimize worker exposure. ORP supports the decision to have the review led by SRNL, a national laboratory with the resources needed to assemble a group of credible experts to conduct this review and make independent recommendations. The press release from SRNL is attached.

<14-048, SRNL Hanford Vapor Review.pdf>

**Memorandum of Understanding
Between
Hanford Concerns Council
Washington River Protection Solutions LLC
Hanford Challenge**

Re: Independent Expert Panel Study and Recommendations on Vapors Policies, Practices and Protections at Hanford, April 2014

This memorandum of understanding (MOU) describes the scope and goals of the independent expert panel study agreed to by the undersigned. This memorandum charges the Hanford Concerns Council (HCC), herein referred to as "the Council" to independently form and coordinate the efforts of an expert panel and oversee the management of this study through its consensus process. The recommendations of the expert panel will be independently reached by the panel itself. The Council will ensure, according to the scope and the roles and responsibilities, that the panel receives balanced input and can obtain information that it seeks and otherwise ensure an orderly and independent study to which all interested and affected parties may have access for input and dialogue.

The Council has been asked once again by Washington River Protection Solutions (WRPS) and Hanford Challenge (HC) to organize and oversee a study and recommendations regarding vapors protection policy, practices and responses at the Hanford site. This would be the third such assessment under the advisory mandate of the HCC, initiated and agreed to by WRPS and HC and, previously, by each of its predecessor organizations. (Previous studies were released in September 2008 and October 2010.) Recent vapor related events indicate the need for reassessment and for meaningful and implementable improvements in vapor protections and response.

Thus, the Council will reconstitute and augment, with reference to the current circumstances, the independent expert panel for the 2010 study and related Council process to manage the new study. The new study will focus on recommendations for monitoring tank farm vapors, preventing future vapor exposures, and ensuring that exposed workers are directed to and receive timely and proper medical evaluation and treatment. Timeliness is of the essence. As such this reassessment is scoped to ensure timely completion of primary activities anticipated to take 3 to 4 months, with interim reports as needed. The expert panel will advise on the feasibility of the final scope and schedule.

The Council, WRPS and Hanford Challenge agree that the focus should be on gaining the best possible outcomes in terms of ongoing policies and practices concerning prevention, protection, and response affecting workers' potential and actual tank farm chemical vapor exposures. The scope and roles in this memorandum and attachment will be reviewed by the Council with the expert panel prior to finalization of the statement of work in order to ensure the effectiveness of the scope in responding to the present circumstances. Any change in scope

or roles is subject to the agreement of the undersigned parties. As presently conceived, the scope of this update will include, but not be limited to evaluation of the following factors:

- Adequacy of prior recommendations (Sept 2008 and Oct 2010) and their implementation
- Implications of recent vapor exposures on the adequacy of present policies and their implementation
- Potential improvements in prior recommendations and implementation actions
- Adequacy of worker protections, preventative measures, and responses to vapor exposures (for both immediate and potential chronic and/or latent health effects)
- Specific attention to adequacy of support and understanding of a safety conscious work environment that could contribute to improved prevention and response regarding chemical vapors exposures. This could include, but not be limited to, examination and recommendations in the following areas:
 - addressing cultural traditions and practices that affect prevention and awareness of, protection from, and responses to exposures
 - how to elevate and broaden the focus on and awareness of vapors effects and related precautions
 - how to integrate worker experience data into the evaluation of potential vapor impacts
 - increasing sensitivity and knowledge related to the meaning (and limits) of monitoring and medical information and to individual differences as they affect the need for worker protection and development of accommodations
 - assuring ease of access to available PPE and other protections free of obstacles and stigmas
 - how to improve communications surrounding vapors to better contribute to effective prevention and response
 - institutionalizing cultural awareness of vapors history and knowledge into ongoing policies and behavioral expectations
- Assessment of and recommended improvements to protocols and coordination among and between medical service providers and operations contractors for addressing and tracking reported vapors exposures and for medical treatment resulting from exposures. This should include but would not be limited to such considerations as:
 - guidelines on the timeliness and nature of medical testing in response to a confirmed or suspected vapors exposure
 - guidelines on chemical exposures for which workers should be tested and by what means
 - policies and precautions for use as guidelines in determining whether or how to return someone to work after examination for potential exposures, including guidelines for structuring work restrictions that respond to confirmed or suspected vapor exposures. Guidelines should consider the relationship of potential accommodation determinations to the need for specificity and clarity in defining work restrictions related to these vapor exposures and events

- how to ensure consistency in the application of effective and timely medical response, protocols and communications across providers and events concerning confirmed or suspected exposures
 - effective, accurate, consistent and timely forms of communication to individuals, work groups, workforce as a whole, and the public in connection with medical knowledge and the nature of any reported or confirmed hazards in connection with vapors exposures, concerns or events
- Assessment of and recommendations regarding newly available or additional technology for monitoring, preventing and responding to chemical vapor releases, including, as necessary, reassessment of technologies currently in use, or previously recommended.
 - Further recommendations regarding collecting and reporting chemical vapor data during waste disturbing activities, following vapor exposures, and routine monitoring, including the prior developed technical basis and sampling methodology.
 - Recommend ways to institutionalize chemical vapor knowledge, history of exposures, long-term health issues resulting from exposures, and data on vapors (including adequacy of medical monitoring and record keeping) in order to maintain the availability of this information and knowledge for the duration of tank farm cleanup, accounting for the turnover and multiplicity of contracts, management and the workforce.
 - The panel may, in addition to its draft and final report, provide interim recommendations it believes would make a significant difference, including
 - advice or observations that could have an immediately beneficial effect, or to otherwise provide timely and beneficial information or updates
 - immediate steps to ensure increased worker protection from chemical vapors, and to improve the effectiveness of medical and other responses, referencing the items above

Recognizing the effectiveness and benefits of protocols used in the Phase II vapors study (contained in the 2009 Memorandum of Understanding for the Phase II study as "Roles and Responsibilities"), these procedures are incorporated in the attachment, modified to fit the expected parameters of the present study. These protocols include, but are not limited to, methods by which: members or additional assistance could be added to the panel effort as required by issues expected or encountered; data would be assembled and transmitted to the panel; the panel will carry on effective and candid interaction with those that wish to provide or who are asked for data and input, including but not limited to employees, their representatives, company officials and advocacy group representatives. The Council will assure proactive outreach to affected and concerned employees and their representatives, or others, who wish to come forward, and will arrange informative briefings and making the report public at the end of the process. These steps are intended to assure that all interested parties have input and have the opportunity to gain full knowledge of the study approach and conclusions.

As before, WRPS and HC agree to cooperate with the study in providing data and making personnel available to provide needed input. WRPS agrees to reimburse the Council for the costs of the study. The process will be handled within the Council's usual confidentiality strictures, but the final report will be publicly available. In keeping with the Council charter, the Council will not intrude on collectively bargained responsibilities, processes and rights. Once this MOU is agreed to, an announcement will be made by the Council about the Council's involvement in sponsoring and managing the study. Also related to Charter agreements, the Council is the sole authorized spokesperson about the study process and progress.

By signatures below, this agreement allows the Council to proceed expeditiously and with due diligence and care to organize and cause the study to begin and to oversee its completion.

Washington River
Protection Solutions LLC

Hanford Concerns Council

Hanford Challenge

HANFORD CONCERNS COUNCIL

Review of Chemical Vapor Worker Exposure Assessment

Roles and Responsibilities

Fairness and transparency are critical to the success of the independent review of the Chemical Vapor Exposure Assessment. The independent panel of experts brings both first-rate scientific knowledge and an appreciation of the need to be, and to be seen to be, impartial, open and respectful of all parties.

The following statements of roles and responsibilities have been adapted from the Phase II study to assist both the panel and the parties in establishing proper and transparent lines of communication. These statements presume that the experts will focus on the scientific and program, policy and response issues of concern and that the members and staff of the Hanford Concerns Council (HCC) will be responsible for managing relationships between the parties and maintaining transparency in the interactions between the parties and the expert panel. The roles below are within the HCC process to sponsor and oversee the study.

Expert Panel

- Review proposed scope of work (MOU) for feasibility in the time frame and otherwise make suggestions to make the scope, and thus, the final, product most useful, timely and practical; assist WRPS and Hanford Challenge to address any concerns and key differences regarding the scope. Also, these roles and responsibilities will be jointly reviewed and adjusted as needed to fit the intended scope.
- Execute the study and recommendations per scope of work in the MOU
- Present preliminary conclusions to HCC and WRPS and Hanford Challenge representatives
- Participate in dialogue with WRPS and Hanford Challenge to address issues and concerns identified in preliminary conclusions
- Prepare draft report for review for accuracy by WRPS and Hanford Challenge
- Prepare final report with conclusions, recommendations, responses to comments arising during accuracy review
- Present final report to WRPS and Hanford Challenge leadership
- Provide interim reports as noted in the MOU
- Recognizing the urgency, work diligently to perform within the prescribed time frames, recognizing the impacts that the need for responses or actions by others may have on timing

Chair of Expert Panel

- Coordinate, facilitate and integrate the activities of the expert panel
- Take the lead in reviewing the proposed scope, recommending a final scope to the HCC, and ensuring that the full panel is committed to the scope

- Interface with HCC Chair and/or Technical Review Subcommittee chair to secure approval of the scope of work and on any subsequently proposed changes
 - Ensure that panel members execute approved scope of work in timely manner
 - Responsible for ensuring adherence to cost and schedule and reporting performance/status to HCC
 - Arrange with HCC staff for:
 - Necessary conference calls among panel members
 - Requests for documents from and contacts with WRPS and Hanford Challenge personnel and consultants, and from or with others whose input becomes part of the process.
 - Scheduling of and travel to meetings of panel
- Coordinate presentation of interim reports, preliminary conclusions, and production and delivery of draft and final reports

WRPS and Hanford Challenge

- Develop, as needed, further inputs to the Scope Of Work between the HCC and the independent reviewers
- Provide copies of appropriate documents for independent reviewer(s)
 - WRPS to make appropriate management and staff available
 - Hanford Challenge to facilitate confidential interaction of employees who wish to provide input with HCC
- Ensure that all communication with the expert committee is channeled through the Chair of the Technical Review Subcommittee and HCC staff
- Review and comment on draft and final technical products
- Commit to communicate in good faith about initial and final results and follow-on actions

Hanford Concerns Council (HCC)

- Facilitate execution of the agreement between WRPS and Hanford Challenge which is represented in the MOU document
- It is presumed that prior Independent Review Team members (Pat Brysee and Mark Stenzel) are acceptable to all parties. Any proposed new members or consultant support are subject to HCC vetting and consensus for review and approval.
- Facilitate development of a final scope of work for the expert panel, and roles and responsibilities for the panel, WRPS and the HCC, in conjunction with WRPS, Hanford Challenge, and the expert panel
- Contract with the expert panel members and any related agreed upon consultants to perform the review based on the agreed upon scope of work
- Monitor performance to schedule and cost estimate
- Oversee performance to maintain contractors within the agreed scope of work
- Assure and facilitate experts' communication with WRPS and Hanford Challenge throughout the review process per the scope
- Ensure that other interested parties who wish to provide input to the panel have an appropriate opportunity

- Facilitate communication between WRPS and Hanford Challenge about results and follow-on actions
- Arrange for the final report to be publicly available
- Through the chair of the HCC, or others as delegated by the Chair, arrange for any necessary and appropriate public communication during the course of and at the conclusion of the study. The HCC, through the HCC chair or as delegated by the Chair, is the spokesperson for the process, release of information, and announcements regarding the study and final and interim reports

HCC Technical Review Subcommittee

The HCC technical committee will be the primary group to provide advice about and carry out the HCC's mandate as above and in the MOU. Among other tasks needed to carry out the study according to this MOU, the HCC Technical Review Committee will:

- Assure the development and use of the agreed upon protocols
- Arrange agenda for initial panel meeting with WRPS and Hanford Challenge representatives
- Review and recommend HCC approval of panel's proposed scope of work
- Review proposed changes in adopted scope of work and make recommendations to the HCC for final adoption
- Review requests for additional information, documents and meetings to determine if such requests imply changes in the scope of work
- Discuss preliminary conclusions with panel members
- Facilitate dialogue among panel, WRPS and Hanford Challenge, and other interested and affected parties
- Arrange for delivery of final report to WRPS and Hanford Challenge leadership

HCC Staff

- Arrange conference calls, meetings and travel
- Track invoices against adopted scope of work
- Track document requests and flow of documents and information among panel members and between panel and HCC, WRPS and Hanford Challenge
- Provide other assistance to support timely progress and completion of the study

Whitmore, Shannon L

From: Olson, Dave
Sent: Tuesday, April 29, 2014 10:55 AM
To: Smith, Kevin W (ORP)
Cc: Olds, Theodore E (Erik); Dowell, Jonathan A; Fletcher, Thomas W
Subject: Conduct of SRNL-led Vapors Review

If asked, (b)(5)

(b)(5)

Whitmore, Shannon L

From: Fletcher, Thomas W
Sent: Monday, May 05, 2014 9:22 AM
To: Steiling, Jeri L
Subject: FW: Fwd: Vapors SOW Rev 2 (2).docx
Attachments: Vapors SOW Rev 2 (2) Rev1.docx; ATT00001.htm

Please print for my review

-----Original Message-----

From: Harkins, Brian A [Brian_A_Harkins@orp.doe.gov]
Received: Monday, 05 May 2014, 8:42AM
To: Fletcher, Thomas W [Thomas_W_Fletcher@orp.doe.gov]
Subject: Fwd: Vapors SOW Rev 2 (2).docx

Tom,
Can I send this to WRPS?

Sent from my iPad

Begin forwarded message:

From: "Smith, Kevin W (ORP)" <Kevin_W_Smith@orp.doe.gov>
Date: May 4, 2014 at 7:12:04 PM PDT
To: "Harkins, Brian A" <Brian_A_Harkins@orp.doe.gov>
Cc: "Fletcher, Thomas W" <Thomas_W_Fletcher@orp.doe.gov>, "Dowell, Jonathan A" <Jonathan_A_Dowell@orp.doe.gov>
Subject: Fw: Vapors SOW Rev 2 (2).docx

See below.

From: Kevin & (b)(6) Smith [mailto:(b)(6)]
Sent: Sunday, May 04, 2014 06:27 PM
To: Smith, Kevin W (ORP)
Subject: RE: Vapors SOW Rev 2 (2).docx

Brian ... please look at (b)(5) Thx .. Kevin

From: Harkins, Brian A
Sent: Thursday, May 01, 2014 4:49 PM
To: Smith, Kevin W (ORP)
Subject: Vapors SOW Rev 2 (2).docx

Kevin,
Attached is the TF Vapor SOW with the changes I made shown with track changes.

TEMPLATE "C-3"

STATEMENT OF WORK

Requisition #:

Title: Technical Peer Review Assessment (b)(5) for Vapors Evaluation (SRNL)

Revision Number: 0

Date: May 2014

Prior SOW or Revision Date: (b)(5)

1.0 Objective:

Washington River Protection Solutions (WRPS) requires the services of Savannah River National Laboratory (SRNL) to establish and oversee a team (b)(5) of external experts to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy's Tank Farms and recommend actions to eliminate or (b)(5) (b)(5) exposures (b)(5)

2.0 Background/Introduction:

WRPS is evaluating the Tank Farms for chemical vapors as a result of recent incidents that have occurred with chemical vapors and odors. More than two dozen tank farm workers recently received medical attention during a short time span this spring following apparent exposures to vapors emanating from the waste storage tanks. Vapor impacts to the workforce are not new and there has been an average of about 5 employees per month being affected by vapors requiring a medical assessment. While most worker affects have been short term in nature and have been rapidly returned to work, there is still considerable concern about short and long term potential affects. Hence WRPS has requested that this new study have an enhanced scope for analysis and recommendation (b)(5) beyond that of the two previous technical reviews of Hanford tank waste vapor policies and issues in 2008 and 2010.

3.0 Scope:

The contractor (SRNL) will lead an Independent Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will provide recommendations and identify further enhancements to WRPS programs and practices to eliminate or minimize worker exposures (b)(5) (b)(5)

- Potential for engineered controls or equipment to further reduce the potential for worker exposure to vapors and reduce risk.
- (b)(5) WRPS Industrial Hygiene program and related procedures
- (b)(5) Technical basis for monitoring and controlling Tank Farms vapors (b)(5)
- (b)(5) Implementation and effectiveness of prior (b)(5) vapor affects and their recommendations (Sept 2008 and Oct 2010) (b)(5)

- (b)(5) _____ IH instrumentation usage and data analysis (b)(5) _____
(b)(5) _____
- (b)(5) _____ Workforce communications (b)(5) _____
(b)(5) _____ of chemical hazards, (b)(5) _____ IH program sampling results, and vapor events
- Current (b)(5) _____ policies (b)(5) _____
(b)(5) _____ and practices associated with Tank Farm vapors
- (b)(5) _____
- (b)(5) _____ Worker protections, preventative measures, and responses to vapor exposures
- (b)(5) _____ Immediate and potential chronic and/or latent health effects of Tank Farm vapor exposures
- (b)(5) _____ New technology for monitoring, preventing and responding to chemical vapor releases, (b)(5) _____
(b)(5) _____
- (b)(5) _____
- (b)(5) _____ Chemical vapor data collection
(b)(5) _____
(b)(5) _____ including technical basis and sampling methodology.
- Interviewing current and former workers about their concerns about vapor exposure.
- Interviewing current and former workers about working conditions, vapor exposures, and event response actions.
- Potentially interviewing or acquiring inputs from the public and/or former tank farm workers.
- Tank Farm vapors program compliance to 10 CFR 851.

4.0 Deliverables:

The contractor (SRNL) shall submit (b)(5) _____ plan within two weeks of the start date. This plan should include the following information: 1). Approach for conducting the (b)(5) _____ 2). Team members and their qualifications; 3). Listing of the information required to perform the (b)(5) _____ 4) Schedule (including site visits) and 5). Cost estimate. The final (b)(5) _____ report with (b)(5) _____ with recommendations for improvement (b)(5) _____ chemical vapors (b)(5) _____ September 30, 2014. A draft (b)(5) _____ report shall be submitted for factual accuracy review (b)(5) _____ two weeks prior the (b)(5) _____ submittal of the final report or September 16, 2014. In addition, the (b)(5) _____ team should be prepared to makes a presentation (s) to WRPS senior management, ORP and to the WRPS employees (b)(5) _____

5.0 Acceptance Criteria:

Acceptance shall be based on validation by the WRPS POC that the contractor has provided requested input. (b)(5)

(b)(5)

The (b)(5) plan must meet established applicable WRPS procedures for control and review of work products identified in Section 6.1 below. Acceptance shall be based on validation by the WRPS POC that the contractor has resolved and incorporated all reviewer comments.

6.0 Configuration Management and Standards

6.1 Configuration Management Requirements:

New or revised Technical Documents shall be prepared in accordance with TFC-BSM-AD-STD-02, Editorial Standards for Technical Documents and meet the document release criteria found in Table 3 of TFC-ENG-DESIGN-C-25, Technical Document Control.

6.2 Applicable Standards

APPLICABLE ENGINEERING CODES AND TOC ENGINEERING STANDARDS & PROCEDURES

	Number	Title
1.	TFC-BSM-AD-STD-02,	Editorial Standards for Technical Documents
2.	TFC-ENG-DESIGN-C-25	Technical Document Control

7.0 ESH&Q Requirements

(b)(5)

7.1 Quality Assurance Requirements:

This work scope does not include safety significant system, structure, or component deliverables; and the scope does not include any deliverable that will become design input to a safety significant system, structure, or component.

This scope of work is to provide technical expertise to examine hazardous chemical vapors management and related worker protection measure at the U.S. Department of Energy's Tank Farms. (b)(5)

(b)(5)

(b)(5)

(b)(5) The program applied to this scope of work shall be equivalent to the following requirements from the American Society of Mechanical Engineers, (b)(5) *Quality Assurance Requirements for Nuclear Facility Applications*, including (b)(5) and (b)(5)

NQA-1 Criteria	Title	All Sections	Specific Sections
Part I, Req. 1	Organization		100 & 300

Hanford Local Area Network (HLAN) computer and telephone in the Richland office facilities when they are on-site.

11.0 Training:

(b)(5)

All subcontractor staff supporting this task shall complete the following training as needed for site and facility access:

- Hanford General Employee Training (HGET) Hanford Site Standard
- Tank Operations Contractor Specific HGET
- Tank Farms Environmental Management System (EMS) Overview
- Tank Farm Facility Orientation and FEHIC – CBT

Specific training or facility information will be provided on a case by case basis depending on the selected locations and access requirements. Overview information on the WRPS Assessment Process requirements will be provided at an initial assessment team meeting.

12.0 Qualifications:

(b)(5)

13.0 Special Requirements:

There are no special requirements associated with this scope of work.

Hanford Site Access

Hanford site access will be required for this work.

14.0 Reporting/Administration:

If applicable, Subcontractor information including reports and other documents shall be submitted in either hard copy or electronic format as designated by WRPS. If electronic formatted documents are required, the documents must be viewable using Microsoft ® Windows®, Microsoft® Office, or Adobe® Acrobat® software.

15.0 Workplace Substance Abuse Program Requirements:

A Workplace Substance Abuse Program is not required for this SOW.

16.0 WRPS Point of Contact (POC)

Ray Skwarek, (WRPS), 509-372-9117; Raymond_J_Skwarek@rl.gov

Whitmore, Shannon L

From: Smith, Kevin W (ORP)
Sent: Sunday, May 04, 2014 7:12 PM
To: Harkins, Brian A
Cc: Fletcher, Thomas W; Dowell, Jonathan A
Subject: Fw: Vapors SOW Rev 2 (2).docx
Attachments: Vapors SOW Rev 2 (2) Rev1.docx

See below.

From: Kevin & (b)(6) Smith [mailto:(b)(6)]
Sent: Sunday, May 04, 2014 06:27 PM
To: Smith, Kevin W (ORP)
Subject: RE: Vapors SOW Rev 2 (2).docx

Brian ... please look at (b)(5) Thx .. Kevin

From: Harkins, Brian A
Sent: Thursday, May 01, 2014 4:49 PM
To: Smith, Kevin W (ORP)
Subject: Vapors SOW Rev 2 (2).docx

Kevin,

Attached is the TF Vapor SOW with the changes I made shown with track changes.

Whitmore, Shannon L

From: ^ORP Office of Communications
Sent: Friday, April 25, 2014 3:25 PM
Subject: Savannah River National Laboratory to Lead Independent Expert Review of Chemical Vapors and Worker Protection at Tank Farms

ANNOUNCEMENT

ORP No.: 14-048

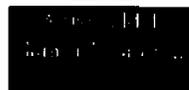
Department of Energy
Office of River Protection
P.O. Box 450
Richland, Washington 99352

Issued: 4-25-2014

To: All ORP Employees and Support Staff

Subject: Savannah River National Laboratory to Lead Independent Expert Review of Chemical Vapors and Worker Protection at Tank Farms

Today, the Savannah River National Laboratory (SRNL) announced they will oversee a panel of independent experts reviewing Washington River Protection Solutions LLC (WRPS) management of the chemical vapors program. The Office of River Protection (ORP) encouraged WRPS to explore a wide range of alternatives to help resolve the tank vapor concerns at the Hanford site. The objective of the independent panel is to make recommendations to further protect workers in the tank farms. WRPS is focused on expeditiously moving forward with this initiative designed to complement a wide range of actions to minimize worker exposure. ORP supports the decision to have the review led by SRNL, a national laboratory with the resources needed to assemble a group of credible experts to conduct this review and make independent recommendations. The press release



from SRNL is attached.

Whitmore, Shannon L

From: Dowell, Jonathan A
Sent: Wednesday, April 23, 2014 3:40 PM
To: Smith, Kevin W (ORP); Olds, Theodore E (Erik)
Cc: Fletcher, Thomas W; Stubblebine, Scott D
Subject: SRNL independent study with vapors

I am closing on the phone with (b)(5)

(b)(5)

Jonathan "JD" Dowell
Deputy Manager
U.S. Department of Energy
Office of River Protection
509.376.3389 (Off)
(b)(6) Cell)
Check us out on

From: Smith, Kevin W (ORP)
Sent: Wednesday, April 23, 2014 3:34 PM
To: Olds, Theodore E (Erik)
Cc: Dowell, Jonathan A
Subject: I talked with Dave H

Whitmore, Shannon L

From: Wright, Teresa A
Sent: Wednesday, May 28, 2014 11:33 AM
To: Fletcher, Thomas W
Subject: Vapors IEWO SOW
Attachments: MOSRV00115 Initial Award signed.pdf

Requirements Package Checklist for Inter-Entity Work Orders (IEWO)
"X" indicates item is mandatory with all requirement packages for IEWO actions

IEWO Number: MOSRV00115 _____ IEWO Revision & Date: _0 05/14/2014

IEWO Title: Technical Peer Review Assessment for Vapors Evaluation (SRNL) _____

RP Initiator: Brian Harkins

Y N/A

- 1. DOE Inter-Entity Work Order Form: Available on the Office of River Protection Intranet page under ORP Requirements and Package Forms
- 2. Statement of Work and/or Performance Objectives: Required for all new IEWOs and modifications thereto which change the Statement of Work or the Performance Objectives
- 3. Cost Estimate: Should be obtained from performing contractor
- 4. A description of deliverables and schedule
- 5. Government Furnished Property (GFP) List: Include nomenclature, DOE Barcode #, make, model, serial number, acquisition cost, and date of acquisition (if known). Indicate whether GFP is to be used on Government installation or removed to another location
- 6. Environmental, Safety and Health requirements
- 7. Security Clearances required
- 8. Quality Level (QL) of Work to be Performed:
QUALITY AFFECTING, QL-1

(Required for all new IEWOs and modifications thereto that change the Statement of Work or the Performance Objectives)

QL of ORP Project Work*:

QL-1: _____

QL-2: _____

Excluded Work Activities: NA
(* Refer to ORP IP TRS-QSH-IP-10 for definitions of Quality Level 1, Quality Level 2, and Excluded Work Activities)

QA Approval: JERRY D. MAY 
Printed Name/Signature

5/22/2014
Date

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

1. Work Order Number: MOSRV00115 Amendment Number: 0	2. Month/Year to be recorded: <small>(for use in DOE-DOE work only)</small> May-14	
Authorizer		
3. Authorizing Contractor or Field Office: DOE-Richland Operations Office (Office of River Protection)		
4. Authorizing Contractor or Field Office OPI Code: RI.90	5. Allotment Symbol: RL9191	
6. Budget Analyst: Phil Dailey Telephone: 509-376-2050 E-Mail: philip.dailey@rl.doe.gov		
7. ORP Technical Point of Contact Signature: Brian Harkins <i>Brian A. Harkins</i> Date: 5/22/14		
8. Authorizing Tank Farms Program Signature: Tom Fletcher <i>Tom Fletcher</i> Date: 5/22/14		
9. Funds Availability Authorization Official's Signature: Phil Dailey Date:		
10. Authorizing Contracting Officer Signature: (Required for IEWO > \$1M life of project) Marc McCusker Date:		
11. Scope of Work (attach additional sheets if needed): Technical Review for Vapors Evaluation (SRNL) The contractor (SRNL) will lead an Independent Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will review the current WRPS program and provide recommendations and identify further enhancements to WRPS programs and practices to eliminate or minimize worker exposures. See attached Statement of Work. 5/14/2014 - Providing \$1,000,000 of funding for develop and assessment plan within two weeks which will include: 1) Approach for conducting the assessment; 2) Team members and their qualifications; 3) Listing of the information required to perform the assessment; 4) Schedule (including site visits) 5) Cost estimate.		
12. Period of Performance: 5/01/2014 - 09/30/2014		
13. Billing and Budgetary Information: Address: "Accounts Payable - Work will be billed via VIPERS, with reference to Work Order Number" Funding titles: Fund Type.Appo Year.Allottee.Rpt Entity.Obj Cls.Program.Project.WFO.Local Use.Future Use Funding Source: 01250.2014.34.421301.25422.1110909.0001481.0000000.0000000.0000000		
Authority		
	Current Year	Cumulative
Previous Total	\$ -	\$ 0.00
Current Action	\$ 1,000,000.00	\$ 1,000,000.00
Revised Total	\$ 1,000,000.00	\$ 1,000,000.00
Performer		
14. Performing Contractor: Savannah River Nuclear Solutions, LLC		
15. Performing Contractor OPI Code: SRDO	16.	
17. Cognizant Contracting Officer: Matthew Biasiny Telephone: 803-952-8648 Fax 803-952-7357 E-Mail: Matthew.Biasiny@SRS.gov		
18. Performer's Funds Availability Authorization Official's Signature: Date:		
19. Performer's Cognizant Contracting Officer Signature: (Required for IEWOs > \$1M life of project) Date:		

**WASHINGTON RIVER PROTECTION SOLUTIONS
DOE INTER-ENTITY WORK ORDER (IEWO) REQUEST**

IEWO NUMBER: (to be assigned by DOE) _____

IEWO SCOPE / TITLE: Independent Expert Panel Study on Chemical Vapors at the Tank Farms

NATIONAL LAB: Savannah River National Laboratory

FIELD OFFICE: DOE-Richland Operations Office (Office of River Protection)

PERIOD OF PERFORMANCE: May 1, 2014 - Sept 30, 2014

THIS FUNDING AUTHORIZATION \$ 1,000,000.00

PRIOR AUTHORIZATIONS \$ _____

TOTAL FUNDS AUTHORIZED \$ 1,000,000.00

Fund Type Base TD&D

Baseline and Funds Control

Is the Budget for this scope included in the Approved Baseline? YES

If No, state why and/or state what authorizing document / BCR includes IEWO scope:

RPP-14-135 includes this scope

Work Breakdown Structure (WBS) Number: 5.1.5.2.9.16

Control Account Charge Number: 201792

Resource Code Where Budget Planned (21, 39M, etc.): 21

SIGNATURES

		DATE
Budget Analyst:	Alyson Chacon Print Name	4-30-14
	<i>Alyson Chacon</i> Signature	
Cost Account Manager:	Clint Wolfley Print Name	4/30/14
	<i>Clint Wolfley</i> Signature	
WRPS Technical POC:	Ray Skwarek Print Name	4/30/14
	<i>R Skwarek</i> Signature	
PPM&A Manager:	Steve Duffee Print Name	4/30/14
	<i>Steve Duffee</i> Signature	

A-6004-591 (REV 4)

STATEMENT OF WORK

Requisition #: 267157

Title: Technical Review for Vapors Evaluation (SRNL)

Revision Number: 2

Date: May, 20 2014

Prior SOW or Revision Date: May 20, 2014

1.0 Objective:

Washington River Protection Solutions (WRPS) requires the services of Savannah River National Laboratory (SRNL) to establish and oversee a team of subject matter experts to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy's Tank Farms and recommend actions to eliminate or mitigate vapor exposure levels.

2.0 Background/Introduction:

WRPS is evaluating the Tank Farms for chemical vapors as a result of recent incidents that have occurred with chemical vapors and odors. More than two dozen tank farm workers recently received medical attention during a short time span this spring following potential low level exposures to vapors emanating from the waste storage tanks. Vapor impacts to the workforce are not new and there has been an average of about 5 employees per month being affected by vapors requiring a medical assessment. While most worker affects have been short term in nature and have been rapidly returned to work, there is still considerable concern about short and long term potential affects. Hence WRPS has requested that this new study have an enhanced scope for analysis and recommendation beyond that of the two previous technical reviews of Hanford tank waste vapor policies and issues in 2008 and 2010.

3.0 Scope:

The contractor (SRNL) will lead a Technical Review Team to evaluate the chemical vapors and odors at the Tank Farms. The team will review the current WRPS program and provide recommendations and identify further enhancements to WRPS programs and practices to eliminate or minimize worker exposures. The review should include, but not be limited to a:

- Potential for engineered controls or equipment to further reduce the potential for worker exposure to vapors and reduce risk
- WRPS Industrial Hygiene program and related procedures
- Technical basis for monitoring and controlling Tank Farms vapors
- Implementation and effectiveness of prior vapor affects and their recommendations (Sept 2008 and Oct 2010)
- IH instrumentation usage and data analysis usage
- Workforce communications of chemical hazards, IH program sampling results, and vapor events
- Current policies and practices associated with Tank Farm vapors

- Worker protections, preventative measures, and responses to vapor exposures
- Consideration of immediate and potential chronic and/or latent health effects of Tank Farm vapor exposures
- New technology for monitoring, preventing and responding to chemical vapor releases
- Chemical vapor data collection including technical basis and sampling methodology
- Interviewing current and former workers about their concerns about vapor exposure
- Interviewing current and former workers about working conditions, vapor exposures, and event response actions
- Potentially interviewing or acquiring inputs from the public and/or former tank farm workers
- Tank Farm vapors program in regards to 10 CFR 851

4.0 Deliverables:

The contractor (SRNL) shall submit a project plan within two weeks of the start date. This plan should include the following information: 1) Approach for conducting the project; 2) Team members and their qualifications; 3) Listing of the information required to perform the project; 4) Schedule (including site visits) and 5) Cost estimate. The final report with recommendations for improvement of the chemical vapors target date for completion is September 30, 2014. A draft report shall be submitted for factual accuracy review no later than two weeks prior the submittal of the final report assuming an end date of September 30, 2014 or September 16, 2014. In addition, the review team should be prepared to make a presentation (s) to WRPS senior management, ORP and to the WRPS employees.

5.0 Acceptance Criteria:

Acceptance shall be based on validation by the WRPS POC that the contractor has provided requested input.

The project plan and report must meet established applicable WRPS procedures for control and review of work products identified in Section 6.1 below. Acceptance shall be based on validation by the WRPS POC that the contractor has addressed all reviewer comments.

6.0 Configuration Management and Standards

6.1 Configuration Management Requirements:

New or revised Technical Documents shall be prepared in accordance with TFC-BSM-AD-STD-02, Editorial Standards for Technical Documents and meet the document release criteria found in Table 3 of TFC-ENG-DESIGN-C-25, Technical Document Control.

6.2 Applicable Standards

APPLICABLE ENGINEERING CODES AND TOC ENGINEERING STANDARDS & PROCEDURES

	Number	Title
1.	TFC-BSM-AD-STD-02,	Editorial Standards for Technical Documents
2.	TFC-ENG-DESIGN-C-25	Technical Document Control

7.0 ESH&Q Requirements

7.1 Quality Assurance Requirements:

This work scope does not include safety significant system, structure, or component deliverables; and the scope does not include any deliverable that will become design input to a safety significant system, structure, or component.

This scope of work is to provide technical expertise to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy's Tank Farms.

The program applied to this scope of work shall be equivalent to the following requirements from the American Society of Mechanical Engineers, NQA-1-2008 *Quality Assurance Requirements for Nuclear Facility Applications*, including NQA-1a-2009 Addenda, or later version. Those quality program requirements that are identified as being applicable to this scope of work are listed below.

NQA-1 Criteria	Title	All Sections	Specific Sections
Part I, Req. 1	Organization		100 & 300
Part I, Req. 2	Quality Assurance Program		100, 200, 300 (First paragraph only)
Part I, Req. 3	Design Control		N/A
Part I, Req. 4	Procurement Document Control		N/A
Part I, Req. 5	Instructions, Procedures, and Drawings	X	
Part I, Req. 6	Document Control	X	
Part I, Req. 7	Control of Purchased Items and Services		N/A
Part I, Req. 8	Identification and Control of Items		N/A
Part I, Req. 9	Control of Processes		N/A
Part I, Req. 10	Inspection		N/A
Part I, Req. 11	Test Control		N/A
Part I, Req. 12	Control of Measuring and Test Equipment		N/A
Part I, Req. 13	Handling, Storage, and Shipping		N/A
Part I, Req. 14	Inspection, Test, and Operating Status		N/A
Part I, Req. 15	Control of Nonconforming Items		N/A
Part I, Req. 16	Corrective Action	X	
Part I, Req. 17	Quality Assurance Records		100, 200, 300, 800
Part I, Req. 18	Audits	X	

7.2.1 Supplier Quality Assurance Program:

The Contractor's Quality Assurance Program shall be subject to review at all times, including prior to award.

7.2.2 Supplier Quality Assurance Program Changes

The Contractor shall, during the performance of this subcontract, submit proposed changes to their approved quality assurance program to the WRPS Buyer for review and concurrence prior to implementation.

7.2.3 Applicable ES&H Requirements:

No On Site Work Provisions apply.

8.0 Verification/Hold Points:

There are no specific Verification/Hold Points associated with this scope of work. A review of the draft report for factual accuracy is expected.

9.0 Reserved

10.0 Work Location/Potential Access Requirements:

Work locations will include 2440 and 2425 Stevens, Richland, WA or closely associated facilities. WRPS will provide the Affiliate with office space with Hanford Local Area Network (HLAN) computer and telephone in the Richland office facilities when they are on-site.

11.0 Training:

Review team members will be considered as visitor badged personnel.

All subcontractor staff supporting this task shall complete the following training as needed for site and facility access:

- Hanford General Employee Training (HGET) Hanford Site Standard
- Tank Operations Contractor Specific HGET
- Tank Farms Environmental Management System (EMS) Overview
- Tank Farm Facility Orientation and FEHIC – CBT

Specific training or facility information will be provided on a case by case basis depending on the selected locations and access requirements. Overview information on the WRPS Assessment Process requirements will be provided at an initial assessment team meeting.

12.0 Qualifications:

Contractor personnel provided under this subcontract shall possess the qualifications, certifications, and any other attributes required to complete the assigned work with emphasis of expertise in there associated field.

13.0 Special Requirements:

There are no special requirements associated with this scope of work.

Hanford Site Access

Hanford site access will be required for this work.

14.0 Reporting/Administration:

Subcontractor information including reports, presentations, and other documents shall be submitted in either hard copy or electronic format as designated by WRPS. If electronic formatted documents are required, the documents must be viewable using Microsoft® Windows®, Microsoft® Office, or Adobe® Acrobat® software.

15.0 Workplace Substance Abuse Program Requirements:

A Workplace Substance Abuse Program is not required for this SOW.

16.0 WRPS Point of Contact (POC)

Bob Wilkinson, (WRPS), 509-373-9841; Robert_E_Wilkinson@rl.gov