



**Department of Energy**  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

February 17, 2012

**CERTIFIED MAIL**

Mr. Kevin Newcomb  
(home address has been deleted)

Dear Mr. Newcomb:

**FREEDOM OF INFORMATION ACT REQUEST (FOI 2012-00537)**

You requested, pursuant to the Freedom of Information Act (FOIA), a copy of Problem Evaluation Requests (PER) 2004-4005, 2003-1780 and the current Tank Vapor Information Sheets from Washington River Protection Solutions (WRPS).

Your request is granted and the documents are enclosed. On the first page of PER-2004-4005 we made certain deletions pursuant to Exemption 6 of the FOIA. Exemption 6 provides that an agency may protect from disclosure all personal information if its disclosure would constitute a clearly unwarranted invasion of privacy by subjecting the individuals to unwanted communications, harassment, intimidation, retaliation, or other substantial privacy invasions by interested parties.

In invoking Exemption 6 we considered 1) whether a significant privacy interest would be invaded by disclosure of information, 2) whether release of the information would further the public interest by shedding light on the operations or activities of the government, and 3) whether in balancing the private interest against the public interest, disclosure would constitute a clearly unwarranted invasion of privacy. We have determined that the public interest in the identity of the individual whose name, identification number and telephone number does not outweigh the individual's privacy interests.

All releasable information in the documents has been segregated and is being provided to you. The undersigned individual is responsible for this determination. You have the right to appeal to the Office of Hearings and Appeals, as provided in 10 CFR 1004.8, for any information denied to you in this letter. Any such appeal shall be made in writing to the following address: Director, Office of Hearings and Appeals (HG-1), U.S. Department of Energy, L'Enfant Plaza Building, 1000 Independence Avenue SW, Washington, D.C. 20585-1615, and shall be filed within 30 days after receipt of this letter. Should you choose to appeal, please provide this office with a copy of your letter.

Mr. Kevin Newcomb

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February 17, 2012

As provided by the FOIA, you fall under a fee category which entitles you to two hours of search time and 100 pages of photocopies at no charge. Two hours of search time was spent on your request, therefore, there will be no charge for this response.

If you have any questions regarding your request, please contact me at our address above or on (509) 376-6288.

Sincerely,

-Original Signed By-

Dorothy Riehle  
Freedom of Information Act Officer  
Office of Communications  
and External Affairs

OCE:DCR

Enclosures

Save

### Problem Evaluation Request (PER)

PER-2004-4005  
Closed 09/02/2004 16:00

<b>PER No</b>	<b>Date of Discovery</b>	<b>Time of Discovery (24:00)</b>	<b>Project</b>
PER-2004-4005	07/21/2004	11:00	APC-WFO
<b>Location</b>			
AN Farm			
<b>How Was Problem Discovered</b>			
General Observation			
<b>Description of Concern or Problem</b>			
Suffered heat stress after performing release survey in AN-Farm			
<b>Requirement Not Satisfied</b>		<b>Source Document Number</b>	
<b>Equipment Identification Number</b>		<b>System Identification</b>	
Rocket Launcher			
<b>Immediate actions Taken or Planned</b>			
Reported how I felt to 1st line manager. I was then taken to the 200 West medical facility.			
<b>Recommended Corrective Actions</b>			
None			
<b>Feedback</b>			
No			
<b>Originators Name</b>	<b>Originators ID</b>	<b>Originators Phone</b>	<b>Date Initiated</b>
(b)(6)	(b)(6)	(b)(6)	07/21/2004
<b>SHIFT OPERATIONS REVIEW</b>			
<b>Title</b>			
First aid case - heat stress			
<b>How Discovered</b>		<b>Agency</b>	
self-ID prior to event			
<b>Reportability</b>	<b>SSC Operability</b>	<b>Operability Review</b>	<b>Comp Measures Req</b>
Non-Reportable	N/A	N/A	
<b>Describe actions Taken or Recommended</b>			
WFO SO completed notifications. No further actions required.			
<b>SO Reviewer Name</b>	<b>SO Reviewer ID</b>	<b>SO Reviewer Phone</b>	<b>SO Review Date</b>
Strasser, David W	H0075556	(509) 373-0304	07/21/2004
<b>SCREENING</b>			
<b>PER Significance Level</b>			
PIE/CIM			
<b>Independent Assessment Review</b>	<b>Occurrence Report Number</b>	<b>Regulatory Related</b>	<b>DOE CAP Required?</b>
No		No	
<b>Assigned Responsible Manager</b>			
McAuley, Jim			
<b>PER Screening Comments</b>			

OSHA recordable? CC: D Price  
First Aid Case-D Price 07/23/04

RESCREEN REQUEST(FE)R Loeffler-Employee returned to work without restriction. First aid only; occupational. Rescreen as a PIE/CIM.

RESCREEN COMMENTS:Rescreen to PIE/CIM. M Sheriff 07/27/04

**Causal Code**

<b>MGT/Comm/Train</b>	<b>Human Performance</b>	<b>GEMS</b>	<b>Equip/Eng/Other</b>
Not Applicable	Not Applicable		Not Applicable
<b>Failed Barrier</b>	<b>ORPS Code</b>	<b>Functional Area</b>	<b>Work Process</b>
	Not Applicable	Radiation Protection	<ul style="list-style-type: none"> <li>Field Walk Down</li> </ul>
<b>ISMS</b>	<b>PAAA</b>	<b>Consequence Code</b>	
Perform work within the controls	N/A	<ul style="list-style-type: none"> <li>Injury/Other - Minor injuries or illnesses, first aid items - not captured in other consequence categories</li> </ul>	
<b>PER Screening Chair</b>	<b>PER Screening Chair ID</b>	<b>PER Screening Chair Phone</b>	<b>PER Screening Date</b>
Owen, Annette (inactive)	H0054042	(509) 372-0533	07/22/2004
<b>PAAA REVIEW</b>			
<b>PAAA Screening</b>	<b>NTS Report Number</b>		
Not subject to PAAA			
<b>PAAA Screening Comments</b>			
None.			

**CAUSE ANALYSIS**

**Description of Occurrence**

Suffered heat stress after performing release survey in AN-Farm

**Extent of Condition/ Safety Significance and Generic Implications**

Isolated case no safety significance in other areas.

**Remedial Corrective Action**

Employee was evaluated and sent back to work without a restriction.

**Causal Analysis**

This is an isolated case of an employee not feeling well after being exposed to heat. It does not appear that management nor the employee made a mistake in over assigning work or the employee of extending themselves.

**Causes**

**PIE/CIM**

**Evaluation of PIE/CIM Initiative**

An evaluation was done by Jim McAuley. This is an isolated case where the employee became ill due to the heat. There was no human error or misjudgement that caused this problem. It is recommended that this PER be reclassified as a trend only.

**ATTACHMENTS**

*no Attachments*

**AUDIT HISTORY**

Change Date	Auditor	Comments
07/22/2004 14:42	Owen, Annette	'Program/Project' was changed.
07/23/2004 14:44	Owen, Annette	'PER Screening Comments' was changed.
07/26/2004 12:07	Owen, Annette	'PER Screening Comments' was changed.
07/27/2004 14:06	Owen, Annette	'PER Significance Level' was changed from 3 to 6.

07/28/2004 09:23

Owen, Annette

'PER Screening Comments' was changed.

'TF Operations Morning Leadership Call' was changed.

'Instructions for Responsible Manager' was changed.

-- End of Report --  
01/10/2012 08:23 AM

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**Problem Evaluation Request (PER)**

**PER-2003-1780**  
Closed 07/22/2003 15:45

PER No	Date of Discovery	Time of Discovery (24:00)	Project
PER-2003-1780	05/07/2003	08:30	Project

**Location**

OTHER

**How Was Problem Discovered**

Self Assessments

**Description of Concern or Problem**

Three areas have been self-discovered within the Waste Treatment and Supplemental Technology Data Package (DOE/ORP-2003-07, Revision 0) mass balances wherein data is inconsistent with that presented in the other seven environmental impact statement data packages. These three areas are:

- 1) A 2010 start-up of the Waste Treatment Plant is assumed, rather than the 2007 assumed elsewhere in the data packages.
- 2) The January 30, 2003, Integrated Mission Acceleration Plan (IMAP) planning case assumptions are used for non-waste sodium additions, rather than the River Protection Project System Plan, Revision 0 assumptions. The non-waste sodium additions under the IMAP assumptions are significantly lower than those values under River Protection Project System Plan, Revision 0.
- 3) Some dates vary for introduction of supplemental treatment technologies.

These inconsistencies affect data presented in portions of three data packages: No Action Baseline Tank Farm Operations and Waste Treatment Data Package (RPP-14145), Waste Treatment and Supplemental Technology Data Package (RPP-14146), and Waste Disposal Data Package (RPP-14149).

**Requirement Not Satisfied**

**Source Document Number**

**Equipment Identification Number**

**System Identification**

N/A

**Immediate actions Taken or Planned**

Initiated action to review remaining data for consistency and to correct inconsistencies identified in the following data packages: No Action Baseline Tank Farm Operations and Waste Treatment Data Package (RPP-14145), Waste Treatment and Supplemental Technology Data Package (RPP-14146), and Waste Disposal Data Package (RPP-14149).

**Recommended Corrective Actions**

Perform final review data packages once corrections have been completed. Assign: corrective action to responsible project manager: G.W. McLellan

**Feedback**

Originators Name	Originators ID	Originators Phone	Date Initiated
McLellan, Greg	H0059889	(509) 438-5511	05/08/2003

**SHIFT OPERATIONS REVIEW**

**Title**

Inconsistent Data in DOE/ORP-2003-07

**How Discovered**

Self-Identified

**Agency**

**Reportability**

Non-Reportable

**SSC Operability**

N/A

**Operability Review**

N/A

**Comp Measures Req**

**Describe actions Taken or Recommended**

No further WFO SO actions.

SO Reviewer Name	SO Reviewer ID	SO Reviewer Phone	SO Review Date
Jarecki, Theodore D (inactive)	OLD_13334_H0025667	(509) 373-0956	05/08/2003

**SCREENING**

**PER Significance Level**

PER with Resolution

Independent Assessment Review	Occurrence Report Number	Regulatory Related	DOE CAP Required?
No		No	

**Assigned Responsible Manager**

McLellan, Greg

**PER Screening Comments**

None.

**Causal Code**

MGT/Comm/Train	Human Performance	GEMS	Equip/Eng/Other
Not Applicable	Not Applicable	N/A	Inattention to detail

Failed Barrier	ORPS Code	Functional Area	Work Process
N/A	Not Applicable	Projects	<ul style="list-style-type: none"> <li>Documents and Records</li> </ul>

ISMS	PAAA	Consequence Code
Provide feedback and continuous improvement	830.122(d)(1) Prepare, review, approve, issue, use and revise documents...	<ul style="list-style-type: none"> <li>N/A - Not Applicable</li> </ul>

PER Screening Chair	PER Screening Chair ID	PER Screening Chair Phone	PER Screening Date
Owen, Annette (inactive)	H0054042	(509) 372-0533	05/12/2003

**PAAA REVIEW**

PAAA Screening	NTS Report Number
PAAA, Non-NTS Reportable	

**PAAA Screening Comments**

None.

**CAUSE ANALYSIS**

**Description of Occurrence**

Three areas have been self-discovered within the Waste Treatment and Supplemental Technology Data Package (DOE/ORP-2003-07, Revision 0) mass balances wherein data is inconsistent with that presented in the other seven environmental impact statement data packages. These three areas are:

- 1) A 2010 start-up of the Waste Treatment Plant is assumed, rather than the 2007 assumed elsewhere in the data packages.
- 2) The January 30, 2003, Integrated Mission Acceleration Plan (IMAP) planning case assumptions are used for non-waste sodium additions, rather than the River Protection Project System Plan, Revision 0 assumptions. The non-waste sodium additions under the IMAP assumptions are significantly lower than those values under River Protection Project System Plan, Revision 0.
- 3) Some dates vary for introduction of supplemental treatment technologies.

These inconsistencies affect data presented in portions of three data packages: No Action Baseline Tank Farm Operations and Waste Treatment Data Package (RPP-14145), Waste Treatment and Supplemental Technology Data Package (RPP-14146), and Waste Disposal Data Package (RPP-14149).

**Extent of Condition/ Safety Significance and Generic Implications**

Data packages were re-reviewed to ensure accuracy and consistency. No further inconsistencies were identified

**Remedial Corrective Action**

Revise data packages to correct inconsistencies identified in description of occurrence.

**Causal Analysis**

Inattention to detail was determined to be the apparent cause of the data inconsistencies.

**Causes**

**ATTACHMENTS**

*no Attachments*

**AUDIT HISTORY**

<b>Change Date</b>	<b>Auditor</b>	<b>Comments</b>
07/27/2004 16:06	Rukavina, Richard L	'PAAA' was changed.

-- End of Report --  
01/10/2012 08:20 AM



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Industrial Hygiene Programs

## TVIS (Tank Vapor Information Sheet)

### Safety and Health Programs

- Fact Sheets
- TF Chemical Exposure Hazard Analysis
- TVIS (Tank Vapor Information Sheet)
- Performance Indicators
- CVST (Chemical Vapor Solutions Team) (Link)
- Respiratory Protection (Link)
- Professional Links
- Link to AMH
- Search
- Site Map
- What's New
- Print Preview

- [A Farm](#)
- [AN Farm](#)
- [AP Farm](#)
- [AW Farm](#)
- [AX Farm](#)
- [AY/AZ Farm](#)
- [B-Farm](#)
- [BX-Farm](#)
- [BY-Farm](#)
- [C-Farm](#)
- [S-Farm](#)
- [SX-Farm](#)
- [SY-Farm](#)
- [T-Farm](#)
- [TX-Farm](#)
- [TY-Farm](#)
- [U-Farm](#)

- [TF Chemical Vapor Information Summary](#)
- [History - Major Technical Changes](#)

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 RapidWeb Version 6.5

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<b>TANK VAPOR INFORMATION SHEET</b>	Washington River Protection Solutions	TVIS Number: TVIS-A-001
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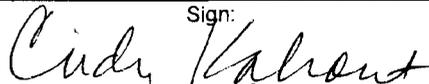
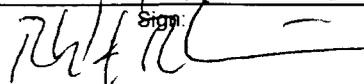
Location: A Farm	Expiration Date: 08/17/2012
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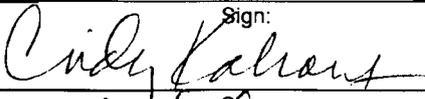
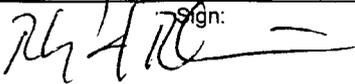
Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None
Ethylamine	5 ppm	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None
Formaldehyde	0.3 ppm C			
Mercury	25 µg/m³	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FFAPR (Formaldehyde)
Nitrosodimethylamine	0.3 ppb			
Nitrous Oxide	50 ppm	4	Abnormal (e.g. AOP 11 or 15)	None

COPCs with Personal Samples ≥50% OEL	Respiratory Protection			
	Mask	Cartridge	Changeout	NOTE
NONE	FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
	PAPR	FR-57	6 hours	Approved for voluntary
	SCBA			Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
A-101 through A-106	Breather filter	Passive	Established with posting and barrier
A-417	Breather filter	Passive	Established with posting and barrier

<b>Signatures:</b>			
Industrial Hygiene (print): Amanda L. Beerman	Sign: 	Phone: 509-308-8269	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

TANK VAPOR INFORMATION SHEET		Washington River Protection Solutions		TVIS Number: TVIS-AN-001	
Location: AN Farm			Expiration Date: 05/19/2012		
Chemicals of Potential Concern for Sampling		Similar Exposure Groups			
COPC	OEL	SEG	Description	Minimum PPE	IHSP
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None	EABO-11066
1-Butanol	20 ppm	2	Static conditions, open path, OR Intrusive activities with controlled or restricted pathway	None	EABO-11067
Ethylamine	5 ppm				
Formaldehyde	0.3 ppm C	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	None	EABO-11079
Mercury	25 µg/m³				
Nitrosodimethylamine	0.3 ppb	4	Abnormal (e.g. ventilation shutdown, AOP 11, 15, or 21)	FFAPR (Ammonia & VOCs)	EABO-11064
Nitrosomethylethylamine	0.3 ppb				
Nitrosomorpholine	0.6 ppb				
Nitrous Oxide	50 ppm				
COPCs with Personal Samples ≥50% OEL		Respiratory Protection			
None		Mask	Cartridge	Changeout	NOTE
		HFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		PAPR	FR-57	6 hours	Approved for voluntary
		SCBA			Approved for voluntary
Emission Points					
EP	Description	Ventilation	VCZ		
Primary Stack	The scaffold platforms around the W314 exhaust stacks	Active	Posted at access to stack		
Signatures:					
Industrial Hygiene (print):		Sign:	Phone:	Date:	
Cindy L. Kahout			509-373-1114	11/29/2011	
Reviewer (print):		Sign:	Phone:	Date:	
Roby J. Robinson			509-373-4337	11/29/2011	

TANK VAPOR INFORMATION SHEET		Washington River Protection Solutions		TVIS Number: TVIS-AP-001	
Location: AP Farm			Expiration Date: 11/29/2012		
Chemicals of Potential Concern for Sampling		Similar Exposure Groups			
COPC	OEL	SEG	Description	Minimum PPE	IHSP
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None	EABO-11047
Ethylamine	5 ppm	2	Static conditions, open path, OR intrusive activities with controlled or restricted pathway	None	EABO-11001
Mercury	25 µg/m³				
Nitrosodiethylamine	0.1 ppb	3	Waste disturbing non-isolated activities, OR waste/tank intrusive activities with open path	None	EABO-11048
Nitrosodimethylamine	0.3 ppb				
Nitrosomethylethylamine	0.3 ppb	4	Abnormal (e.g. ventilation shutdown, AOP 11, 15, or 21)	FFAPR (Ammonia and VOCs)	EABO-11074
Nitrosomorpholine	0.6 ppb				
Nitrous Oxide	50 ppm				
COPCs with Personal Samples ≥50% OEL		Respiratory Protection			
Mercury; monitoring required for certain tasks involving jumpers and liquid waste in the AP valve pit.		Mask	Cartridge	Changeout	NOTE
		HFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		PAPR	FR-57	6 hours	Approved for voluntary
		SCBA			Approved for voluntary
Emission Points					
EP	Description	Ventilation	VCZ		
Primary exhauster	Primary stack and associated fan housings	Active	Posted with barrier		
Signatures:					
Industrial Hygiene (print):		Sign:	Phone:	Date:	
Cindy L. Kahout			509-373-1114	11/29/2011	
Reviewer (print):		Sign:	Phone:	Date:	
Roby J. Robinson			509-373-4337	11/29/2011	

TANK VAPOR INFORMATION SHEET		Washington River Protection Solutions		TVIS Number: TVIS-AW-001	
Location: AW Farm			Expiration Date: 11/08/2012		
Chemicals of Potential Concern for Sampling		Similar Exposure Groups			
COPC	OEL	SEG	Description	Minimum PPE	IHSP
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None	EABO-11013
1-Butanol	20 ppm	2	Static conditions, open path, OR intrusive activities with controlled or restricted pathway	None	EABO-11010
Formaldehyde	0.3 ppm C				
Mercury	25 µg/m <sup>3</sup>	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	None	EABO-11049
Nitrosodiethylamine	0.1 ppb				
Nitrosodimethylamine	0.3 ppb	4	Abnormal (e.g. ventilation shutdown, AOP 11, 15, or 21)	FFAPR (Ammonia and VOCs)	EABO-11063
Nitrosomorpholine	0.6 ppb				
Nitrous Oxide	50 ppm				
COPCs with Personal Samples ≥50% OEL		Respiratory Protection			
NONE		Mask	Cartridge	Changeout	NOTE
		HFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		PAPR	FR-57	6 hours	Approved for voluntary
		SCBA			Approved for voluntary
Emission Points					
EP	Description	Ventilation	VCZ		
Primary Stack	Platform around W314 exhaust stacks	Active	Posted with barrier		
Signatures:					
Industrial Hygiene (print):		Sign:	Phone:	Date:	
Cindy L Kahout			509-373-1114	11/29/2011	
Reviewer (print):		Sign:	Phone:	Date:	
Roby J. Robinson			509-373-4337	11/29/2011	

<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number: TVIS-AX-001
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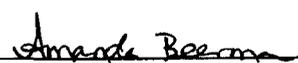
Location: AX Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling	Similar Exposure Groups		
COPC OEL	SEG	Description	Minimum PPE
No COPCs have been identified as having the statistical probability to reach or exceed 10% of the OEL.	1	General farm entry, no VCZ entry	None
	2	Static conditions, open path OR intrusive activities with controlled or restricted pathway	None
	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	None
	4	Abnormal (e.g. AOP 11 or 15)	None

COPCs with Personal Samples $\geq$ 50% OEL	Respiratory Protection			
	Mask	Cartridge	Changeout	NOTE
NONE	FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
	PAPR	FR-57	6 hours	Approved for voluntary
	SCBA			Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
AX-101 through AX-104	Breather filter	Passive	Established with posting and barrier
AX-152	Breather filter	Passive	Established with posting and barrier

<b>Signatures:</b>			
Industrial Hygiene (print): Amanda L. Beerman	Sign: <i>Amanda Beerman</i>	Phone: 509-308-8269	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: <i>RJR</i>	Phone: 509-373-4337	Date: 08/17/2011

TANK VAPOR INFORMATION SHEET		Washington River Protection Solutions		TVIS Number: TVIS-AY-AZ-001	
Location: AY and AZ Farms			Expiration Date: 11/29/2012		
Chemicals of Potential Concern for Sampling		Similar Exposure Groups			
COPC	OEL	SEG	Description	Minimum PPE	IHSP
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None	EABO-11051
1,3 Butadiene	1 ppm	2	Static conditions, open path OR intrusive activities with controlled or restricted pathway	None	EABO-11050
Furan	1 ppb				
Nitrosodiethylamine	0.1 ppb	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	None	EABO-11100
Nitrosodimethylamine	0.3 ppb				
Nitrosomethylethylamine	0.3 ppb				
Mercury	25 µg/m <sup>3</sup>	4	Abnormal (e.g. ventilation shutdown, AOP 11, 15, or 21)	FF APR with Mersorb or equivalent (Mercury)	EABO-11057
COPCs with Personal Samples ≥50% OEL		Respiratory Protection			
None		Mask	Cartridge	Changeout	NOTE
		HF APR	Mersorb	6 hours	Approved for voluntary
		FF APR	Mersorb	6 hours	Approved for voluntary
		SCBA			Approved for voluntary
Emission Points					
EP	Description	Ventilation	VCZ		
N/A	No permanent emission points identified during active ventilation	Active	None posted		
Signatures:					
Industrial Hygiene (print): Amanda L. Beerman		Sign: 	Phone: 509-308-8269	Date: 11/29/2011	
Reviewer (print): Roby J. Robinson		Sign: 	Phone: 509-373-4337	Date: 11/29/2011	

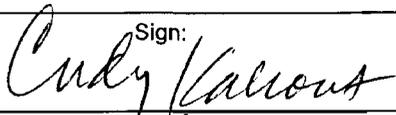
<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number: TVIS-B-001
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Location: B Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None
Formaldehyde	0.3 ppm C	2	Static conditions, open path, OR intrusive activities with controlled or restricted pathway	None
Nitrosodimethylamine	0.3 ppb	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia and Formaldehyde)
Nitrous Oxide	50 ppm	4	Abnormal (e.g. AOP 11 or 15)	None

COPCs with Personal Samples $\geq$ 50% OEL	Respiratory Protection			
	Mask	Cartridge	Changeout	NOTE
NONE	FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
	PAPR	FR-57	6 hours	Approved for voluntary
	SCBA			Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
B-101 through B-112	Breathers filters	Passive	Posted with barriers
B-201 through B-204	Breathers filters	Passive	Posted with barriers

<b>Signatures:</b>			
Industrial Hygiene (print): Cindy L. Kahout	Sign: 	Phone: 509-373-1114	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

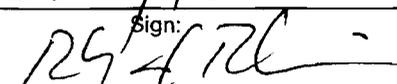
<b>TANK VAPOR INFORMATION SHEET</b>	Washington River Protection Solutions	TVIS Number: TVIS-BX-001
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Location: BX Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
1,3-Butadiene	1 ppm	1	General farm entry, no VCZ entry	None
Ammonia	25 ppm	2	Static conditions, open path, OR intrusive activities with controlled or restricted pathway	None
Furan	1 ppb			
Mercury	25 µg/m <sup>3</sup>	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia and NDMA)
Nitrosodiethylamine	0.1 ppb			
Nitrosodimethylamine	0.3 ppb	4	Abnormal (e.g. AOP 11 or 15)	None
Nitrous Oxide	50 ppm			

COPCs with Personal Samples ≥50% OEL	Respiratory Protection			
	Mask	Cartridge	Changeout	NOTE
NONE	FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
	PAPR	FR-57	6 hours	Approved for voluntary
	SCBA			Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
BX-101 through BX-112	Breather filters	Passive	Posted with barriers
244-BX-DCRT	Breather filters	Passive	Posted with barriers

<b>Signatures:</b>			
Industrial Hygiene (print): Cindy L. Kahout	Sign: 	Phone: 509-373-1114	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

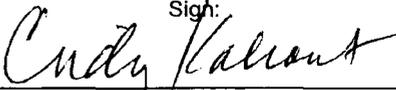
<b>TANK VAPOR INFORMATION SHEET</b>	Washington River Protection Solutions	TVIS Number: TVIS-BY-001
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Location: BY Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
1,3-Butadiene	1 ppm	1	General farm entry, no VCZ entry	None
Ammonia	25 ppm	2	Static conditions, open path, OR intrusive activities with controlled or restricted pathway	None
Furan	1 ppb			
Mercury	25 µg/m <sup>3</sup>	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia and NDMA)
Nitrosodiethylamine	0.1 ppb			
Nitrosodimethylamine	0.3 ppb	4	Abnormal (e.g. AOP 11 or 15)	None
Nitrosomethylethylamine	0.3 ppb			
Nitrous Oxide	50 ppm			

COPCs with Personal Samples ≥50% OEL	Respiratory Protection			
	Mask	Cartridge	Changeout	NOTE
NONE	FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
	PAPR	FR-57	6 hours	Approved for voluntary
	SCBA			Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
BY-101 through BY-112	Breather filters	Passive	Posted with barriers

<b>Signatures:</b>			
Industrial Hygiene (print): Cindy L. Kahout	Sign: 	Phone: 509-373-1114	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

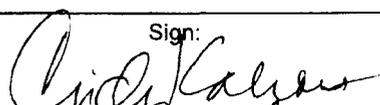
<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number:
		TVIS-C-001

Location: C Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
1-Butanol	20 ppm	1	General farm entry, no VCZ entry	None
2, 4-Dimethylpyridine	0.5 ppm	2	Static conditions, open path, OR Intrusive activities with controlled or restricted pathway	None
3-Buten-2-one	0.2 ppm C			
Ammonia	25 ppm	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with Mersorb or equivalent (Mercury)
Butyl nitrite	0.1 ppm	4	Abnormal (e.g. AOP 11 or 15)	FF APR with Mersorb or equivalent (Mercury)
Formaldehyde	0.3 ppm C			
Mercury	25 µg/m <sup>3</sup>			
Methyl nitrite	0.1 ppm			
Nitrosodiethylamine	0.1 ppb			
Nitrosodimethylamine	0.3 ppb			
Nitrosomethylethylamine	0.3 ppb			
Nitrous Oxide	50 ppm			

COPCs with Personal Samples ≥50% OEL	Respiratory Protection			
	Mask	Cartridge	Changeout	NOTE
Mercury; Monitoring required for certain tasks involving 244 CR vault work.	FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
	PAPR	FR-57	6 hours	Approved for voluntary
	SCBA			Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
C-101 through C-112	Breather filters	Passive	Posted with barriers
C-201 through C-204	Breather filters	Passive	Posted with barriers
C-110	Sluicer Boxes	Passive	Posted with barriers
244-CR Vault	Breather filter	Passive	Posted with barriers
C-200 Connex Boxes	Breather filters	Passive	Posted with barriers
POR-03 Exhauster	CAM Cabinets	N/A	Posted with barriers
POR-008 Exhauster	CAM Cabinets	N/A	Posted with barriers

<b>Signatures:</b>			
Industrial Hygiene (print): Cindy L. Kahout	Sign: 	Phone: 509-373-1114	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

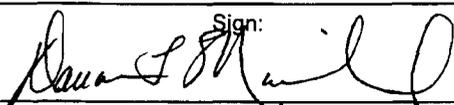
<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number: TVIS-S-001
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Location: S Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None
Formaldehyde	0.3 ppm C	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None
Nitrosodimethylamine	0.3 ppb			
Nitrous Oxide	50 ppm	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia)
		4	Abnormal (e.g. AOP 11 or 15)	None

COPCs with Personal Samples $\geq$ 50% OEL	Respiratory Protection		
	Mask	Cartridge	Changeout NOTE
NONE	FF APR	FME, MPC, MGV	6 hours Approved for voluntary
	PAPR	FR-57	6 hours Approved for voluntary
	SCBA		Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
S-101 through S-112	Breather filter	Passive	Established with posting and barrier

<b>Signatures:</b>			
Industrial Hygiene (print): Darren L. Merrill	Sign: 	Phone: 509-373-2605	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

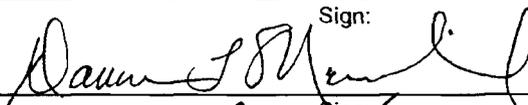
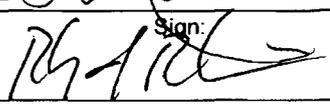
<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number: TVIS-SX-001
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Location: SX Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
3-Buten-2-one	0.2 ppm C	1	General farm entry, no VCZ entry	None
Ammonia	25 ppm	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None
Furan	1 ppb			
Nitrosodimethylamine	0.3 ppb	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia)
Nitrous Oxide	50 ppm	4	Abnormal (e.g. AOP 11 or 15)	None

COPCs with Personal Samples $\geq$ 50% OEL	Respiratory Protection		
	Mask	Cartridge	Changeout NOTE
NONE	FF APR	GME, MPC, MGV	6 hours Approved for voluntary
	PAPR	FR-57	6 hours Approved for voluntary
	SCBA		Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
SX-101 through SX-115	Breather filter	Passive	Established with posting and barrier
SX-302A	Breather filter	Passive	Established with posting and barrier

<b>Signatures:</b>			
Industrial Hygiene (print): Darren L. Merrill	Sign: 	Phone: 509-373-2605	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

TANK VAPOR INFORMATION SHEET		Washington River Protection Solutions		TVIS Number: TVIS-SY-001	
Location: SY Farm			Expiration Date: 11/29/2012		
Chemicals of Potential Concern for Sampling		Similar Exposure Groups			
COPC	OEL	SEG	Description	Minimum PPE	IHSP
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None	WABO-11051
Benzene	0.5 ppm	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None	WABO-11052
Dibutylbutylphosphonate	7 ppb				
Furan	1 ppb				
Nitrosodimethylamine	0.3 ppb	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	None	WABO-11053
Nitrosomethylethylamine	0.3 ppb				
Nitrous Oxide	50 ppm	4	Abnormal (e.g. ventilation shutdown, AOP 11, 15, or 21)	FF APR with GME or equivalent (Ammonia, NDMA)	WABO-11022
COPCs with Personal Samples >50% OEL		Respiratory Protection			
		Mask	Cartridge	Changeout	NOTE
NONE		HFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		FFAPR	GME, MPC, MGV	6 hours	Approved for voluntary
		PAPR	FR-57	6 hours	Approved for voluntary
		SCBA			Approved for voluntary
Emission Points					
EP	Description	Ventilation	VCZ		
Primary exhauster	Primary stacks and associated fan housings	Active	Established with posting and barrier		
Signatures:					
Industrial Hygiene (print):		Sign:	Phone:	Date:	
Darren L. Merrill			509-373-2605	11/29/2011	
Reviewer (print):		Sign:	Phone:	Date:	
Roby J. Robinson			509-373-4337	11/29/2011	

<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number: TVIS-T-001
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Location: T Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
Acetonitrile	20 ppm	1	General farm entry, no VCZ entry	None
Ammonia	25 ppm	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None
Formaldehyde	0.3 ppm C			
Nitrosomethylethylamine	0.3 ppb	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia, NDMA)
Nitrous Oxide	50 ppm	4	Abnormal (e.g. AOP 11 or 15)	None

COPCs with Personal Samples $\geq$ 50% OEL	Respiratory Protection		
	Mask	Cartridge	Changeout NOTE
NONE	FF APR	GME, MPC, MGV	6 hours Approved for voluntary
	PAPR	FR-57	6 hours Approved for voluntary
	SCBA		Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
T-101 through T-112	Breather filter	Passive	Established with posting and barrier
T-201 through T-204	Breather filter	Passive	Established with posting and barrier

<b>Signatures:</b>			
Industrial Hygiene (print): Darren L. Merrill	Sign: 	Phone: 509-373-2605	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number:
		TVIS-TX-001

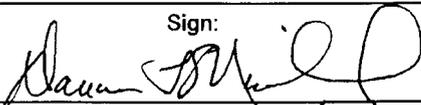
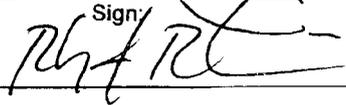
Location: TX Farm      Expiration Date: 08/17/2012

Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None
Mercury	25 µg/m³	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None
Methyl Nitrite	0.1 ppm			
Nitrosodimethylamine	0.3 ppb	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia, NDMA)
Nitrosomethylethylamine	0.3 ppb			
Nitrosomorpholine	0.6 ppb	4	Abnormal (e.g. AOP 11 or 15)	None
Nitrous Oxide	50 ppm			

COPCs with Personal Samples ≥50% OEL	Respiratory Protection		
	Mask	Cartridge	Changeout NOTE
NONE	FF APR	GME, MPC, MGV	6 hours Approved for voluntary
	PAPR	FR-57	6 hours Approved for voluntary
	SCBA		Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
TX-101 through TX-118	Breather filter	Passive	Established with posting and barrier

**Signatures:**

Industrial Hygiene (print): Darren L. Merrill	Sign: 	Phone: 509-373-2605	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

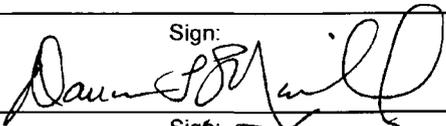
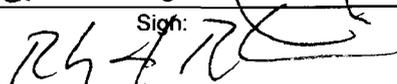
<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number: TVIS-TY-001
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Location: TY Farm	Expiration Date: 08/17/2012
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Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None
Methyl Nitrite	0.1 ppm	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None
Nitrous Oxide	50 ppm	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia)
		4	Abnormal (e.g. AOP 11 or 15)	None

COPCs with Personal Samples $\geq$ 50% OEL	Respiratory Protection		
	Mask	Cartridge	Changeout NOTE
NONE	FF APR	GME, MPC, MGV	6 hours Approved for voluntary
	PAPR	FR-57	6 hours Approved for voluntary
	SCBA		Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
TY-101 through TY-106	Breather filter	Passive	Established with posting and barrier
244-TX-DCRT	Breather filter	Passive	Established with posting and barrier

<b>Signatures:</b>			
Industrial Hygiene (print): Darren L. Merrill	Sign: 	Phone: 509-373-2605	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011

<b>TANK VAPOR INFORMATION SHEET</b>	<b>Washington River Protection Solutions</b>	TVIS Number: TVIS-U-001
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Location: U Farm      Expiration Date: 08/17/2012

Chemicals of Potential Concern for Sampling		Similar Exposure Groups		
COPC	OEL	SEG	Description	Minimum PPE
Ammonia	25 ppm	1	General farm entry, no VCZ entry	None
Furan	1 ppb	2	Static conditions, open path OR Intrusive activities with controlled or restricted pathway	None
Mercury	25 µg/m³			
Nitrosodimethylamine	0.3 ppb	3	Waste disturbing non-isolated activities, OR intrusive activities with open path	FF APR with GME or equivalent (Ammonia, NDMA)
Nitrosomethylethylamine	0.3 ppb			
Nitrosomorpholine	0.6 ppb	4	Abnormal (e.g. AOP 11 or 15)	None
Nitrous Oxide	50 ppm			

COPCs with Personal Samples ≥50% OEL	Respiratory Protection		
	Mask	Cartridge	Changeout NOTE
NONE	FF APR	GME, MPC, MGV	6 hours Approved for voluntary
	PAPR	FR-57	6 hours Approved for voluntary
	SCBA		Approved for voluntary

Emission Points			
EP	Description	Ventilation	VCZ
U-101 through U-112	Breather filter	Passive	Established with posting and barrier
U-201 through U-204	Breather filter	Passive	Established with posting and barrier
244-U-DCRT	Breather filter	Passive	Established with posting and barrier
U-301	Breather filter	Passive	Established with posting and barrier

<b>Signatures:</b>			
Industrial Hygiene (print): Darren L. Merrill	Sign: 	Phone: 509-373-2605	Date: 08/17/2011
Reviewer (print): Roby J. Robinson	Sign: 	Phone: 509-373-4337	Date: 08/17/2011