

Event Investigation Report

EIR-2018-010

"Investigation of SY Farm Emergency Shower AOP-015 Event"



[Redacted signature]

Event Investigation Team Lead

[Redacted name]

Responsible Manager

3/21/18

Date

03/21/2018

Date

Executive Summary

On February 6, 2018 two Federal Engineers and Constructors (FE&C) employees, one electrician and one laborer, smelled a pine sol/lemony chemical odor while hand digging a trench to lay the electrical conduit for the SY Safety shower on the northwest corner of SY Farm exterior. The odor was detected at approximately 1020, employees immediately exited the area upon smelling the odor and returned to their office location in the 200E area, where they reported the odor to their Field Work Supervisor (FWS). The odor was reported to the Central Shift Office (CSO) at approximately 1040 by the employees' FWS. Personnel were asked by their FWS and the Central Shift Manager (CSM) if they wanted to seek medical attention, but both individuals reported having no symptoms and declined a medical evaluation.

At approximately 1045 the CSM entered into an AOP-015 event for the reported odors, and at 1048 sent a Shift Office Event Notification (SOEN) notifying people to stay clear of the SY Farm area. At approximately 1050 two Production Operations Industrial Hygienists (PO IHTs) and two Production Operations Shift Industrial Hygiene Technician supervisors (PO IHT supervisors) arrived at the CSO and were briefed by the CSM on the event status. At about 1101 the PO Shift IHTs were briefed by the PO IH on odor response actions. At approximately 1057 two PO Shift IHTs arrive at CSO and were briefed by the PO IH on response actions. At approximately 1104 event investigation EIR-2018-010, *Investigation of SY Farm Emergency Shower AOP-015 Event*, was initiated by the CSM. At approximately 1105 the PO Shift IHTs were deployed to acquire Respiratory Protective Equipment (RPE).

At approximately 1108 the area of concern was restricted and at approximately 1153 the PO IHT Supervisor updated the CSM that, utilizing Direct Reading Instrumentation (DRI), IHTs reported less than detectable for Ammonia (NH₃) and Volatile Organic Compounds (VOCs) on a sweep of reported odor location and sent grab bag samples to the 2704HV Labs for sampling. At approximately 1201 odor response cards were received at the CSO with no symptoms reported. At approximately 1726 the CSM reported that sample analysis for the event was completed with results below action limits and exited TF-AOP-015. WRPS-PER-2018-0296, *SY Emergency Shower AOP-015 Event*, was generated to document the issues.

End of summary

Personnel interviews were conducted in lieu of fact finding meeting for this event.

Event Timeline

February 6, 2018

0800: Two FE&C employees begin hand digging a trench to lay the electrical conduit for the SY Safety shower at the northwest corner of SY Farm exterior

~0945: FE&C employees take a break and arrive back at job site at 1000

1020: FE&C employees smell odor and immediately leave job site and return to their office in 200E and reported odor to their FWS

1040: FWS contacted CSM to report that while digging for installation of the SY safety shower concrete pad two personnel, one electrician and one laborer, experienced a chemical smell, later narrowed down to a pine sol/lemony smell

1045: Entered TF-AOP-015 for reported odors

1048: SOEN initiated, "Entering AOP-015 for odors on the exterior north/northwest side of SY Farm Stay clear of this area. CSM"

1049: PO IHT supervisor contacts PO Shift IHTs and asks them to report to CSO

1050: 2 PO IH, 2 PO IHT Supervisors arrive at CSO

1052: PO IHs and IHT supervisors briefed by CSM

1053: ST IH updates PO IH: "Pine sol" odor

1057: PO Shift IHTs arrive at CSO

1101: PO Shift IHTs briefed by PO IH on response actions

1103: PO IHT Supervisor contacts Programs IHT Lead to facilitate HAPSITE warm up actions

1105: IHTs deployed to acquire RPE

1106: FWS contacted by CSM to get more specific location details

1108: CSM contacts mask issuing station supervisor for support on issuing RPE for responding IHTs

1108: Area of concern is restricted

1117: PO IHT supervisor notifies CSO staff that responding IHTs are en-route

1153: PO IHT supervisor updates CSM: IHTs reported < Level of Detection (LOD) for NH₃ and VOC on sweep of reported odor location. Grab samples routed to 2704HV IHT lab

1155: 2 Projects IHs arrive at CSO and are briefed on situation and ongoing response actions

1158: Projects IHs head to event scene to acquire more information

1201: Odor response cards received at CSO

1211: Department of Energy on-call Fact Representative (DOEFR) notified of TF-AOP-015 event

1220: PO Shift IHTs contact PO IHT Supervisor with update. Readings from grab samples: Mercury (Hg) < LOD, Nitrous Oxide (N₂O) < LOD

1725: SOEN: "Sample analysis for the TF-AOP-015 event has been completed and the results are below action limits. Exiting TF-AOP-015. CSM"

1725: TF-AOP-015 exited for report of odors

1725: DOEFR notified of TF-AOP-015 exit

End of event timeline

Event Details

Event	Investigation of SY Farm Emergency Shower AOP-015 Event								
Date/time of event	February 6, 2018, time of occurrence ~1020								
Location	North/Northwest of SY Farm exterior								
Personnel affected	Two FE&C employees, one project laborer and one electrician								
Odor/taste	Odor described as a soap like cleaner, Windex, pine sol, lemony and cleaning solution								
Symptoms	None								
DRI results during event	Less than LOD for NH3 and VOC on sweep of reported odor location								
IH investigative monitoring/sampling	Readings from grab samples: Hg less than LOD and N2O less than LOD								
Possible source(s)	D-limonene, a component of many cleaning agents was identified as present in analysis of the air and bag samples taken where odor was detected SY portable toilet, located approximately 200 feet west/northwest of digging area and was serviced prior to event on February 5, 2018								
Weather conditions on February 6, 2018	Time	Wind	Wind	Peak	Ave	Max	Min	RH	Bar
Values taken from station 21	PST	Dir	Spd	Spd	Temp	Temp	Temp		Pres.
	9:30	315.0	3.1	5.5	45.8	46.0	45.6	61.7	29.434
	9:45	343.4	5.0	8.3	46.6	47.2	46.0	58.9	29.43
	10:00	325.9	5.9	8.5	48.1	48.9	47.2	56.7	29.432
	10:15	324.3	5.9	9.5	49.6	50.2	48.9	55.2	29.435
	10:30	335.5	4.8	7.4	50.5	50.9	50.2	54.3	29.441
	10:45	319.9	4.0	6.4	51.3	51.9	50.9	52.9	29.442
	11:00	288.8	2.9	5.8	52.7	53.5	51.9	51.0	29.445
	11:15	240.0	2.8	5.5	53.8	54.1	53.5	51.2	29.451
	11:30	172.2	2.9	5.8	54.8	55.4	54.1	50.5	29.448
Values taken from stations 223S	Time	Wind	Wind	Peak	Ave	Max	Min		
*Barometric pressure and humidity not recorded at 223S station	PST	Dir	Spd	Spd	Temp	Temp	Temp		
	9:30	332.2	4.0	8.5	47.6	48.4	47.1		
	9:45	160.4	3.4	7.0	46.7	48.9	45.0		
	10:00	153.9	3.4	5.1	46.1	46.9	45.1		
	10:15	164.9	3.8	6.2	47.7	48.2	46.9		
	10:30	156.2	3.0	4.5	49.1	49.8	48.1		
	10:45	163.9	2.7	4.5	50.3	51.4	49.4		
	11:00	158.0	2.9	4.9	51.6	52.0	51.4		
	11:15	155.3	3.3	6.4	51.7	52.4	51.0		
	11:30	157.6	4.1	7.7	52.4	52.9	52.1		
Waste disturbing or tank work in adjacent area	None present								
Other work in adjacent area	No work identified as being a potential or contributing cause, see attached release sheet								

Preliminary Extent of Condition Review

This TF-AOP-015 entry is specific to the electrical conduit dig site for the safety shower located on the north/northwest exterior side of SY-Farm. Given the potential source and associated potential causes, the preliminary extent of condition is bound to the immediate area.

Discussion of Potential Causes

Industrial Hygiene analysis of the air and bag samples taken where odor was detected and identified d-Limonene present, a component of many cleaning agents. D-Limonene is utilized as a “green” grease and oil solvent in industry. Limonene has an odor of citrus, and can be detected in the 10-30 ppb range. From comparison of peak area with the internal standard, the sample contained approximately 19 ppb of Limonene. Other compounds identified but not quantified were mesitylene, decane, and a C11-C14 hydrocarbon. Mesitylene is also a component of solvents with a sweet aromatic d-Limonene, but peculiar odor. The odor threshold is wide, as there were a mixture of isomers detected in the 6 ppb to 2.4 ppm range. ACGIH TLV-8hr 25 ppm. The identified hydrocarbons are also consistent with solvent, and with degradation products of C10-C14 alkyl substituted surfactants.

An additional potential source for the reported odor is the portable toilet located north of SY Farm in front of 272SY building, approximately 200 feet east/northeast of digging area and was serviced prior to the event on February 5, 2018. According to the local Ace representative the portable toilets are cleaned by two different methods. The toilet, tank and the unit is sprayed down with a mild soap detergent referred to as the deodorizer. The scent is marionberry and this deodorizer is what makes the water blue. A chemical called Scalex is sprayed in the urinal and is a diluted bleach descaler. No other work was taking place in the adjacent areas at the time of the event that could be considered as a potential source for the odor. The SY safety shower was drained and dumped immediately above its foundation on February 1, 2018. Maintenance confirmed that no chemicals or cleaning agents are used during this process.



SY portable toilet located north/northeast of electrical conduit dig site where odor was reported

Immediate Actions Taken

1. FWS contacted CSM to report odors on behalf of affected personnel
2. SOEN notifications sent for entrance into TF-AOP-015 for reported odors
3. SOEN sent to stay clear of SY farm area
4. Area of concern was restricted
5. Odor response cards completed and received at CSO
6. Communication between PO IHTs, PO IHs, PO IHT supervisor and CSM on event status, response actions and to ensure facilitation of HAPSITE warm up actions
7. DRI readings and grab sample analysis performed and completed
8. Event investigation EIR-2018-010 initiated
9. SOEN sent stating: "Sample analysis for the TF-AOP-015 event has been completed and the results are below. Exiting TF-AOP-015. CSM"
10. DOEFR notified of TF-AOP-015 entrance and exit
11. WRPS-PER-2018-0296, *SY Emergency Shower AOP-015 Event*, was generated to document the issues.

Recommendations/Proposed Corrective Actions /Lessons Learned

No recommendations or proposed corrective actions were identified. Good communication was conducted with all involved in this event. Personnel reported odors in a timely manner, FWS relayed message to CSO in a timely manner, PO IHs, PO IHTs and PO IHT supervisor all communicated efficiently with each other and with CSM. This is an example of a well handled event by all parties involved.

Documents Reviewed

1. Odor response cards
2. Industrial Hygiene Investigation Report
3. TF-AOP-015, Response to Reported Odors or Unexpected Changes to Vapor Conditions
4. Daily release sheet for February 6, 2018
5. CSM log entries for, *"Investigation of SY Farm Emergency Shower AOP-015 Event"*

Attachments

1. Picture of area where FE&C employees smelled pine sol/lemony odor while hand digging a trench to lay the electrical conduit for the SY Safety shower, 1 page
2. Daily release sheet for SY farm on February 6, 2018, 1 page
3. CSM log entries for, *"Investigation of SY Farm Emergency Shower AOP-015 Event"*, 1 page
4. Industrial Hygiene Investigation Report, 6 pages

Attachment 1, Picture of area where FE&C employees smelled pine sol/lemony odor while hand digging a trench to lay the electrical conduit for the SY Safety shower, 1 page



Attachment 2, Daily release sheet for SY farm on February 6, 2018, 1 page

Team ST

Tank Farms: S / SX / SY / S / T / TX / TY / U

Shift Manager: [REDACTED]

Area Manager: [REDACTED]

Maintenance Manager: [REDACTED]

Work-Week Manager: [REDACTED]

PRODUCTION OPERATIONS RELEASE SHEET

Tuesday, February 6, 2018

Washington River Protection Solutions

- 1. No Package
- 2. See Shift Office
- 3. Lock & Tag
- 4. Will Walk-in For Release
- 5. Potential Low-Threshold Vapor Odor
- 6. SWT Review Required

All activities and directives to meet PBIT, TSR, Environmental and Safety requirements shall be prioritized by utilization of 80% resource capacity.

Line	Facility	EAM	Activity	Supervisor	PDD Comments	Release Authority Comments	Tag Out RFR	Fac Rel
1	SY	Level 4	Weekly SY-Farm Surveys					
2	6241V	378632	6241V Vent Station Temporary Generator Power & Lockout Device Install			(2)		
3	Mult	Level 4	Change Trailer Periodic Be Sampling					
4	622S	Level 4	Install Bracket to Hold Fire Extinguisher in Lysimeter					
5	272WA	Level 4	Put together a sit/stand desk-272WA/RM15					
6	UX302A	299627	241-UX-302A ENRAF CAL ENV Due 2/6/18				N/A	
7	UX302A	289652	Pressure Indicator (PI-105) Calibration for UX-302A BOP Due 12/28/17 Late Due 3/28/18				N/A	
8	Mult	HNF-SD-WM-ATP-077	ATP for SX115 ENRAF		CONTINGENT		N/A	
9	Mult	Level 4	White Label Walkdowns - Tank Temperature Enclosures					
10	Mult	375838	West Area - Qtrly Portable Tool Inspection				N/A	
11	T	350987	Relocate VFD and associated wiring, on POR06, to a separate location				8/3/18	
12	SY	379719	BI-MONTHLY CATHODIC PROTECTION INSPECTION			(2)		
13	SX	WO 324171	Excavate and install SX Farm Evapotranspiration basin liner				N/A	
14	SX	WO 348566	Excavate and install Evapotranspiration drainage system (External to SX Farm)				N/A	
15	SX	WO 375090	Install Evapotranspiration Basin liner				N/A	
16	SX	WO 348563	Excavate Evapotranspiration drainage system (Inside of SX Farm)				N/A	
17	222-S	WO 375209	Encasement Pressure Test SNL-5350					
18	SY	WO 311683	241-SY Install Safety Shower outside of SY farm			PARTIAL RELEASE	TSU-18-006 N/A	

For confidentiality, names have been omitted.

Attachment 3, CSM log entries for, "Investigation of SY Farm Emergency Shower AOP-015 Event", 1 page

[02/06/2018 -- 12:11](#)

Entered TF-AOP-015 Response to Reported Odors or Unexpected Changes to Vapor Conditions. Entered AOP-015 at 1045 for a chemical smell experienced at the exterior northwest corner of SY Farm. ██████████ reported at 1040 that while digging for installation of the SY safety shower concrete pad they experienced a chemical smell on initial report. It was later narrowed down to a pinesol/lemony smell. Access to the area has been restricted. The two individuals that smelled the odor were FE&C Electrician ██████████ and Laborer ██████████ who have no symptoms and declined medical evaluation. Initial DRI readings performed by IHT's have come back at less than detectable. Bag samples have been obtained and are being processed at the lab. Odor response cards have been obtained from the two individuals involved.

[02/06/2018 -- 12:11](#)

[Notification](#)

Notified



for AOP, at 02/06/2018 12:11

[02/06/2018 -- 17:25](#)

[AOP](#) Closing ██████████ reported that the sample results and HAPSITE results are below action levels. Exited AOP-015. Notified (FACREP), SOEN sent, radio announcement complete.

Attachment 4, Industrial Hygiene Investigation Report, 6 pages

Washington River Protection Solutions TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT		PER Number: N/A																				
Time/Date & Event location: 1020 02/06/2018 N/NW of SY Farm		EIR Number: EIR-2018-010																				
<p>1. Event Summary (including number of workers involved and activity in progress): Projects Laborer and Electrician were hand digging to support laying electrical conduit for Safety Shower N/NW of SY Farm. Both employees smelled a chemical odor (Pinesol-like). No symptoms were reported.</p> <ul style="list-style-type: none"> Was an IHT Present during initiating event? [] Yes [X] No <p><u>IH Monitoring/ Sample Survey Reports:</u></p> <p>18-01087 "SY Outside Farm AOP-015"</p> <p><u>Weather Conditions at Time of Event:</u></p> <table> <tbody> <tr> <td>• Weather station:</td> <td>233S</td> </tr> <tr> <td>• Wind Direction and Speed:</td> <td>3 MPH sustained from SSE</td> </tr> <tr> <td>• Barometric Pressure (steady/rising/falling):</td> <td>N/A</td> </tr> <tr> <td>• Temperature (F°):</td> <td>51.6 °F</td> </tr> <tr> <td>• Humidity:</td> <td>N/A</td> </tr> <tr> <td>• Weather station:</td> <td>21</td> </tr> <tr> <td>• Wind Direction and Speed:</td> <td>N/A</td> </tr> <tr> <td>• Barometric Pressure (steady/rising/falling):</td> <td>29.46 inHg and rising</td> </tr> <tr> <td>• Temperature (F°):</td> <td>N/A</td> </tr> <tr> <td>• Humidity:</td> <td>54.3%</td> </tr> </tbody> </table> <p>NOTE: Odor Response Cards indicated that the wind was from the NE.</p> <p><u>Field Response Timeline:</u></p> <p>1040: Affected personnel contacted CSM to report odors. 1045: Entered AOP-015 1048: SOEN: "Entering AOP-015 for odors on the exterior north/northwest side of SY Farm. Stay clear of this area. CSM" 1049: PO IHT supervisor contacts PO Shift IHTs and asks them to report to CSO 1050: 2 PO IH, 2 PO IHT Supervisors arrive at CSO 1052: PO IHTs and IHT supervisors briefed by CSM 1053: ST IH updates PO IH: "Pinesol" odor 1155: PO IH asks CSM for odor response cards, none were available at that time. 1057: PO Shift IHTs arrive at CSO 1101: PO Shift IHTs briefed by PO IH on response actions: 10.6 Lamp/NH3 EC SCBA as Per AOP-015 RPF Task 2 2 area grab samples minimum, 1 extra just in case source is identified Miran, Lumex and HAPSITE of grab samples 1103: PO IHT Supervisor contacts Programs IHT Lead to facilitate HAPSITE warm up actions 1105: IHTs deployed to acquire RPE 1106: FWS contacted by CSM to get more specific location details 1108: CSM contacts Mask Issuing Station Supervisor for support on issuing RPE for responding IHTs 1108: Area of concern is restricted</p>			• Weather station:	233S	• Wind Direction and Speed:	3 MPH sustained from SSE	• Barometric Pressure (steady/rising/falling):	N/A	• Temperature (F°):	51.6 °F	• Humidity:	N/A	• Weather station:	21	• Wind Direction and Speed:	N/A	• Barometric Pressure (steady/rising/falling):	29.46 inHg and rising	• Temperature (F°):	N/A	• Humidity:	54.3%
• Weather station:	233S																					
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• Wind Direction and Speed:	N/A																					
• Barometric Pressure (steady/rising/falling):	29.46 inHg and rising																					
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• Humidity:	54.3%																					

Washington River Protection Solutions		PER Number: N/A
TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT		
Time/Date & Event location: 1020 02/06/2018 N/NW of SY Farm		EIR Number: EIR-2018-010
<p>1117: PO IHT supervisor notifies CSO staff that responding IHTs are in-route.</p> <p>1119: Event Investigator arrives at CSO and is briefed by PO IH and CSM</p> <p>1141: Affected employees report to CSO to acquire Odor Response Cards</p> <p>1153: PO IHT supervisor updates CSM: IHTs reported <LOD for NH3 and VOC on sweep of reported odor location In route to 2704HV IHT lab</p> <p>1155: 2 Projects IHs arrive at CSO and are briefed on situation and ongoing response actions</p> <p>1158: Projects IHs head to event scene to acquire more information</p> <p>1201: Odor Response Cards received at CMO</p> <p>1217: Event investigator leaves CSO</p> <p>1220: PO Shift IHTs contact PO IHT Supervisor with update: Readings from grab samples: Hg <LOD N2O <LOD</p> <p>1219: WRPS General Delivery is dispatched</p> <p>1221: Projects IHs contact PO IH with update from event scene: No odors were detectable. Wind from Odor Response Cards was accurate. No collocated work at time of incident. Other work inside of farm was not ongoing at time of incident. Portable toilet pumping service visited on 02/05/2018, and definitely did not visit on 02/06/2018</p> <p>1726: SOEN: "Sample analysis for the TF-AOP-015 event has been completed and the results are below action limits. Exiting TF-AOP-015. CSM"</p>		
IH Author:		
 _____ <i>Print First and Last Name</i>	 _____ <i>Signature</i>	373-7717 _____ <i>Phone No.</i>
		03/19/2018 _____ <i>Date</i>

Washington River Protection Solutions TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT	PER Number: N/A
Time/Date & Event location: 1020 02/06/2018 N/NW of SY Farm	EIR Number: EIR-2018-010
2. GCMS Sample Results:	
<div style="border: 1px solid black; padding: 5px;"> <p style="font-size: small;">AOP-15 SY Farm Feb 6, 2018 Survey & DRI 18-0187</p> <p style="font-size: x-small;"> BLUE is sample RED is FlexFilm Pro bag outgassing 200 mL sample concentration period Very high sensitivity method Peaks of Interest Circled in GREEN </p> <p style="font-size: x-small;"> Mesitylene Decane d-Limonene C11-C14 hydrocarbon </p> </div>	
<p>The attached is an annotated chromatogram overlay of the air sample from SY Farm in blue along with the chemicals outgassing from the bag material itself in red. With this high of sensitivity, the bag materials can be confused with sample materials unless overlaid. Chemicals different between the two chromatograms are circled in GREEN. The most predominant chemical found, d-Limonene is a component of many cleaning agents. It is also utilized as a "green" grease and oil solvent in industry. Limonene has an odor of citrus, and can be detected in the 10-30 ppb range. From comparison of peak area with the internal standard, this sample contained approximately 19 ppb of Limonene. Other compounds identified but not quantified were mesitylene, decane, and a C11-C14 hydrocarbon. Mesitylene is also a component of solvents, with a sweet aromatic, but peculiar odor.</p> <p>Neither the direct-reading instruments nor the Hapsite analysis exceeded the action level for any chemical.</p>	
IH Author: <div style="background-color: black; width: 150px; height: 20px; margin-bottom: 5px;"></div> _____ <small>Print First and Last Name</small>	<div style="background-color: black; width: 150px; height: 20px; margin-bottom: 5px;"></div> _____ <small>Signature</small>
_____ <small>Phone No.</small>	3-19-18 _____ <small>Date</small>

Washington River Protection Solutions TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT	PER Number: N/A
Time/Date & Event location: 1020 02/06/2018 N/NW of SY Farm	EIR Number: EIR-2018-010

3. Additional Information:

- Odor Response Cards received:

ODOR RESPONSE CARD - 241-SY FARM

Odors Detected with *NO* Immediate symptoms

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager, [REDACTED]. Provide the bulleted information below.
3. Complete map, return to Central Shift Office as soon as practicable.

Odors Detected *WITH* Symptoms

4. Notify Immediate Supervisor.
5. Contact CSM, [REDACTED]. Complete below bulleted information and map.
 - Your name and the work you were performing
 - Four symptoms (if any)
 - Date and time odor was noticed
 - Location of odors (mark area on map and the wind direction)
 - Describe the odor
 - Name of other in or near the affected area
 - Was an IHT present?
 - Possible source
6. Provide information on the back of card.
7. Send this card immediately to the Central Shift Office.

241-SY FARM

Page 1 of 2
A-6005-04 (REV 6)

ODOR RESPONSE CARD - 241-SY FARM

1. Contact CSM, Complete below bulleted information and map.
 - Date and time odor was noticed 02-06-2018 10:20 AM
 - Your name and the work you were performing [REDACTED] Safety Supervisor
 - Location of odors (mark area on map and wind direction) SY Safety Shower
 - Name(s) of others in or near the affected area [REDACTED]
 - Was an IHT present? Yes
 - Describe the odor

<input type="checkbox"/> Sweet	<input type="checkbox"/> Sour	<input type="checkbox"/> Musty	<input type="checkbox"/> Earthy	<input type="checkbox"/> Metallic	<input type="checkbox"/> Smoky	<input type="checkbox"/> Rotten	<input type="checkbox"/> Onion
<input checked="" type="checkbox"/> Cleaning Solution	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Other: _____					
 - Possible Source _____
 - Your symptoms (if any)

<input type="checkbox"/> Headache	<input type="checkbox"/> Dizziness/Light-Headed	<input type="checkbox"/> Nausea	<input type="checkbox"/> Cough
<input type="checkbox"/> Fatigue/Drowsiness/Weakness	<input type="checkbox"/> Sore/Irritated Throat	<input type="checkbox"/> Difficulty Breathing	
<input type="checkbox"/> Watery/Irritated Eyes/Trouble with Vision	<input type="checkbox"/> Tingling/Numbness/Paralysis	<input type="checkbox"/> Rash/Itching	
<input type="checkbox"/> Other: _____			
2. Send this card to the Central Shift Office.

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A-6005-04 (REV 6)

Washington River Protection Solutions TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT	PER Number: N/A
Time/Date & Event location: 1020 02/06/2018 N/NW of SY Farm	EIR Number: BIR-2018-010

ODOR RESPONSE CARD - 241-SY FARM

Odors Detected with NO Immediate symptoms

1. **Notify Immediate Supervisor**

2. Contact Central Shift Manager. Provide the bulleted information below.

3. Complete map, return to Central Shift Office as soon as practicable.

Odors Detected WITH Symptoms

4. Notify Immediate Supervisor

5. Contact CSIM, [REDACTED], and complete below bulleted information and map.

- Your name and the work you were performing
- Your symptoms (if any)
- Date and time odor was noticed
- Location of odors (mark area on map and the wind direction)
- Describe the odor
- Name of other in or near the affected area
- Was an IHT present?
- Possible source

6. Provide information on the back of card

7. Send this card immediately to the Central Shift Office.

Page 1 of 2 A-6004-5-0 REV 2




ODOR RESPONSE CARD - 241-SY FARM

1. **Contact CSIM, Complete below bulleted information and map.**

- Date and time odor was noticed 02-06-18 10:20 AM
- Your name and the work you were performing [REDACTED] Drying Ditch
- Location of odors (mark area on map and wind direction) SY Shower Blows North East
- Name(s) of others in or near the affected area [REDACTED]
- Was an IHT present? NO
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion Cleaning Solution Ammonia Other _____
- Possible Source Shower?
- Your symptoms (if any) Headache Dizziness/Light-Headed Nausea Cough Fatigue/Drowsiness/Weakness Sore/Burning Throat Difficulty Breathing Watery/Irritated Eyes/Trouble with Vision Tingling/Numbness/Paralysis Rash/Itching Other: None

2. **Send this card to the Central Shift Office.**

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Washington River Protection Solutions		PER Number: N/A
TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT		
Time/Date & Event location: 1020 02/06/2018 N/NW of SY Farm		EIR Number: EIR-2018-010
4. Recommendations/Conclusions: Identification of Source of the Concern: [] Yes [x] No The workers hand digging north or northwest of SY farm reported a "pinesol" like odor. There were no symptoms noted. The source was not determined.		
5. Other: No comments		
S & H Program Management:		
 <small>Print First and Last Name</small>	 <small>Signature</small>	 <small>Phone No.</small>
		3/20 <small>Date</small>