

EVENT INVESTIGATION REPORT

Entry into AOP-15 for Odors at Intersection of 4th and Canton

Event Investigation Report Number EIR-2016-023

Event Investigation Team Lead

5-19-2016
Date

PER Responsible Manager

5/24/2016
Date

EIR-2016-023 “Entry into AOP-15 for Odors at Intersection of 4th and Canton”**Investigation Summary**

On May 4th, the Central Shift Office (CSO) received an initial report that three (3) American Electric (AMEC) pipefitters smelled raw propane odors at the intersection of 4th Street and Canton Avenue and reported their experience to an AMEC Safety and Health Representative (ASHR). All three pipefitters and the ASHR filled out an Odor Response Card (ORC), with only pipefitter #1 listing a symptom (small headache noticed twenty minutes after the smell). Pipefitter #1 elected to go to Hanford Primary Medical Clinic (HPMC) and was evaluated there. Pipefitters #2 and #3, who had worked in the AX Farm after smelling the odor and exited upon completion of work, requested to be seen by HPMC staff for evaluation as well.

Initially, the ASHR reported that the three (3) pipefitters, including the foreman, had smelled an odor while driving down Canton Ave. from 4th street. The ASHR was in the Evaporator parking lot and smelled the propane odor right before receiving the call. After the phone call, the ASHR spoke to the Field Work Supervisor (FWS) who also smelled the same propane type odor in intermitted waves. Both the ASHR and the FWS believed it may have come from either a septic tank system or a front end loader which was in the vicinity.

Both the ASHR and the FWS walked around the septic tank risers and asked the operator of the front end loader to start the machine so they could determine if the intermittent propane smell had come from either of those suspect sources. Neither source was positively identified. According to a separate AMEC supervisor on scene, the front end loader was diesel powered.

The ASHR and the FWS also walked up to Building 272-AW to investigate another possible source, as they saw propane tanks in the area. They talked with Control Room personnel at the Evaporator to see if they were operating anything that would create the propane smell. Personnel at 272-AW said there were no evolutions or events being conducted by the Evaporator facility that would substantiate any propane like odors. Both the ASHR and FWS mentioned that they had only smelled the odor right in the area of Canton Ave, and then, “only on three short durations (a whiff).”

After walking the suspected areas, they determined this was an unexpected smell and the ASHR notified the shift office. The CSO made a log entry which, in summary, stated that personnel smelled raw propane odors at the intersection of 4th and Canton, performed an investigative walk down of the area and did not locate a source. Prior to performing their work and after exiting the AX Farm, two of the pipefitters noted elevated heart rates. Both reported their symptoms to their supervisor and were taken to HPMC for evaluation. The Industrial Health (IH) report states that the elevated heart rates were based upon the heart rate monitor readings acquired at the work location.

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The ASHR then notified the Single Shell Tank/Retrieval & Closure (SST/R&C) Safety and Health Manager in order to dispatch an Industrial Health Technician (IHT) to the area. The SST/R&C Safety and Health Manager arrived on-scene and the IHT took on-site samples using Direct Reading Instruments (DRI) as well as bag samples. Both of these individuals reported a “light, raw” propane smell however, no readings registered on the DRI. The Gas Chromatograph/Mass Spectrometer (GCMS) sample results and IH report stated that “No results significantly different than the instrument blank were noted for this HAPSITE evaluation.”

Later in the afternoon (approximately 1515), there was one additional worker involved with the concrete cutting job in the Evaporator parking lot, who had smelled the propane odor and was experiencing symptoms of lightheadedness (ORC filled out). He elected to go to HPMC for evaluation as well. Neither the FWS or ASHR went with the employee to HPMC.

Around 1535, the AMEC Supervisor who was familiar with the concrete cutter and front end loader, informed the CSO that three additional personnel smelled odors of a propane type. All three reported no symptoms and refused HPMC evaluation. Only one of the three workers filled out an ORC. The CSO dispatched personnel to expand the boundary lines to encompass 242-A parking lot.

The CSO initiated EIR-2016-023 “AOP-015 Entry at 4th and Canton” at 1638, and approximately fifty minutes later, made a log report that all workers who chose to be evaluated by HPMC, were returned to work without restrictions.

IH sample results were released around 2100, and with all readings well below action limits, the CSO exited AOP-15 for 4th and Canton.

End of Summary

No Fact Finding Meeting has been held to this date

EIR-2016-023 “Entry into AOP-15 for Odors at Intersection of 4th and Canton”**Weather Information**

Yellow highlights weather conditions on or around the CSO and ORC times listed

Station 6										
Date	Time PST	Wind Dir	Wind Spd	Peak Spd	Ave Temp	Max Temp	Min Temp	Prcp	Bar Pres.	RH
5/4/2016	12:00	128.1	5.3	9.3	76.9	77.5	76.4	0	29.173	31
5/4/2016	12:15	162.5	4.1	8.9	77.5	78.1	76.7	0	29.175	30.3
5/4/2016	12:30	225.9	3.9	8.1	77.6	78.1	77.3	0	29.176	30.7
5/4/2016	12:45	212.9	3	6	77.6	78.1	77.2	0	29.158	30.7
5/4/2016	13:00	147	2.2	5.5	78	78.7	77.3	0	29.171	29.7
5/4/2016	13:15	284.6	4.6	10.8	77.9	78.6	77.5	0	29.151	29.7
5/4/2016	13:30	264.5	8.2	13.5	77.9	78.3	77.3	0	29.157	28.5
5/4/2016	13:45	266.5	5.6	12.5	77.4	77.7	77	0	29.157	29
5/4/2016	14:00	340.4	3.2	9.8	78.1	78.6	77.6	0	29.149	28.7
5/4/2016	14:15	237.4	5.6	11	77.9	78.8	77.3	0	29.132	28.3
5/4/2016	14:30	338.3	5	10.2	78.5	79.1	77.7	0	29.128	28.1
5/4/2016	14:45	341.2	6	12.3	79.4	80.3	78.6	0	29.119	27.3
5/4/2016	15:00	339.8	7.8	13.3	80.3	81.6	79.2	0	29.109	27.5
5/4/2016	15:15	308.8	7.3	12.5	80	81	79.2	0	29.111	26.9
5/4/2016	15:30	317	4	7.2	80.9	81.9	79.9	0	29.104	25.9

Event Timeline**04 May 2016**

- 1402 CSO receives report that three (3) AMEC/IMECH pipefitters smelled raw propane odors at the intersection of 4th Street and Canton Ave at approximately 1315. Two of the three fitters noted elevated heart rates upon entering the AX Farm to perform work, performed their work, exited AX Farm and reported symptoms. Winds at time of report are ~3 mph and swirling. ASHR performed an investigative walk down of the area to find a source and could not locate one.
- 1420 AEI Project Superintendent (AEI SUP) notified that the crew working on the new 242 Evaporator Gate smelled a propane type of odor in their work area.
- 1424 CSO verified no sewage or spraying had or was taking place in the area with MSA water utilities and biological control. Entered AOP-15. CSO personnel placed barriers around the intersection of 4th and Canton. Shift Office Emergency Notification (SOEN) sent and Office of River Protection-Department of Energy (ORP-DOE) Rep notified.
- 1425: SOEN: “Entering AOP-015 for stronger than normal odors at the intersection of 4th and Canton Pl. CSM”.

EIR-2016-023 “Entry into AOP-15 for Odors at Intersection of 4th and Canton”**Event Timeline (continued)****04 May 2016 (continued)**

- 1426: IH's arrive at CSO. AEI SUP contacted shift office asking if this crew needed to evacuate their work area, and if so, what exit route should they use. AEI SUP was told to have the work crew move to the west and meet in the Evaporator parking lot. From there they could be transported to the construction trailers.
- 1430 AEI SUP received a phone call from FWS #1 and was informed that FWS #1 contacted the shift office, and was told to leave the AX Change Tent by going north over the berm area to the north. AEI SUP received an incoming phone call from FWS #2 and they (AEI SUP and FWS #2) confirmed that FWS #2 would talk with FWS #1 since they were in the same location.
- 1431 AEI SUP talked to AEI Safety and was requested to contact one of the FWS to confirm that the exit direction from the AX Tent was over the berm.
- 1432: AEI SUP called the FWS # 1 and requested him to call shift office back to confirm the direction of the exit route. SOEN: “AOP-015 odors are of a propane nature. CSM”
- 1433: IHT's arrive at CSO
- 1434: IHT's briefed on response actions and leave to event scene
- 1437: AY/AZ IH contacts AN IH informs that IHT's form projects are currently surveying the area with DRI.
- 1445 AEI SUP received second phone call from FWS #1 and was told that the shift office said that those working in AX were ok. Their exit route when leaving, would be down Canton and through the Evaporator Parking Lot.
- 1457: SST/R&C Safety and Health and IH Rep are at the AOP-15 event at 4th and Canton and indicate there is a light raw propane smell with no reading on their IHT's DRI's. Bag samples have been taken and will be taken to the lab.
- 1518 AMEC FWS reports that AMEC laborer smelled a propane odor with symptoms of being lightheaded. Employee taken to HPMC for evaluation. SOEN sent, ORP-DOE Rep and Industrial Safety notified.
- 1536 AMEC FWS reports that three (3) AMEC laborers smelled odors of a propane type with no symptoms and refused HPMC evaluation. CSO dispatched personnel to move the initial boundary set, further out to encompass 242-A parking lot.
- 1638 Initiated EIR-2016-023 “AOP-015 Entry at 4th and Canton”. SOEN sent and ORP-DOE Rep notified.
- 1646 Notified Tank Farm Projects Manager of three (3) AMEC/IMECH pipefitters and one laborer involved in AOP-15 event at 4th and Canton
- 1752 Industrial Safety Rep and ASHR report that the employees noted have been returned to work without restrictions. SOEN sent out.
- 1812 Notified ORP-DOE of 1536 entry.

EIR-2016-023 “Entry into AOP-15 for Odors at Intersection of 4th and Canton”**Event Timeline (continued)****04 May 2016 (continued)**

- 2059 Per Industrial Hygienist, sample results for both AOP-015 events today are well below action limits. Exiting AOP-015.
- 2100: SOEN: “Sample analysis for the TF-AOP-015 event(s) at 4th and Canton... completed and the results are below action limits. Exiting TF-AOP-015. CSM”

Compensatory Measures

1. CSO receives reports of odors (raw propane like smell).
2. Investigative walk down of the area provides no indication of any likely sources.
3. Entered into AOP-15 and placed barriers around the intersection of 4th and Canton Ave. SOEN sent out.
4. SST/R&C Safety and Health manager and IH were on scene taking DRIs as well as bag/grab samples.
5. Upon notification of additional individuals affected, expanded the boundaries to encompass 242-A parking lot.
6. All individuals requesting medical evaluation were seen by HPMC staff and returned to work without restrictions.
7. Access restricted to the area until samples could be evaluated.
8. AOP-15 cleared upon sample results that were well below action levels.

Preliminary Extent of Condition Review

This AOP-15 entry was specific to 4th and Canton. With no known detectable source or cause, the preliminary extent of condition is bound to the immediate area.

Discussion of Potential Causes

Based upon the review of information obtained, weather conditions and the IH report, the source of the odors encountered by personnel in the area of 4th and Canton can't be definitely determined.

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Discussion of barriers that could have impacted the cause

There are no known barriers that either failed to prevent, or contributed to this event.

Recommendations/Proposed Corrective Actions

Based upon the findings, no further recommendations or proposed corrective actions are given.

Attachments:

1. Copy of CSO log book, pages 136 and 137 (2 pages total, pages 8-9 of this report).
2. TF-AOP-015 Industrial Hygiene Investigation Report (5/4/2016 4th and Canton) (4 pages total, pages 10-13 of this report).
3. Individual Odor Response Cards (12 pages total, pages 14-25 of this report).
4. Page 26 Illegible Black and White Photo not called out here.
5. Email timeline from AMEC Safety and Health Representative (1 page total, page 27 of this report).
6. Email timeline from AEI Project Superintendent (1 page total, page 28 of this report).
7. Aerial photo of 4th and Canton (1 page, page 29 of this report).

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 1

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5/4/16

- 1339 – SY south Argos is out of service, failed source check.
- 1402 – reports AMEC/IMECH pipefitters smelled raw propane odors at the intersection of 4th and Canton Pl at ~1315 and reported to performed investigative walkdowns of the area to find a source and could not locate one. Two of the fitters noted elevated heart rates upon entering the AX Farm to perform work, performed there work, exited AX Farm and reported symptoms to Winds in the area are at ~3 swirling. They are being taken to HPMC for evaluation.
- 1424 – Verified no sewage or spraying had or was taking place in the area with MSA Water Utilities and Biological Control. Entering AOP-015. CSO personnel to place barriers around the intersection of 4th and Canton Pl. SOEN sent and notified.
- 1444 – reports that AMEC employee scraped elbow in AX Farm and bled through his anti-c's. All Rad readings were negative and employee elected to self-treat with manager and safety concurrence. notified.
- 1457 – R are at the AOP-015 event at 4th and Canton Pl and indicate there is a light raw propane smell with no readings on there IHT's DRI's. Bag samples have been taken and will be taken to the lab.
- 1518 – reports that AMEC labor smelled a propane odor with symptoms of being lightheaded. He is being taken to HPMC for evaluation. SOEN sent, notified.
- 1521 – reports that WRPS NCO smelled a heavy odor and does not feel right in the AN team shower facility by wet grout. He is being taken to HPMC for evaluation. Dispatched CSO personnel to investigate. notified.
- 1534 – Update to 1521 entry: CSO personnel identified odors as sewage gas and a dead animal smell. Odors are readily identifiable as not being tank waste, AOP-015 entry criteria not met.
- 1536 – reports that AMEC labors smelled odors of a propane type with no symptoms and refused HPMC evaluation. Dispatched CSO personal to move boundary to encompass 242-A parking lot.
- 1544 - reports while performing 702AZ CAM filter paper change following maintenance activities HPT smelled ammonia and body odor smells with a symptom of a sore throat. IHT was beside h with DRI for ammonia, VOC and mercury with no hits, but did smell a slight ammonia smell and refused HPMC evaluation. There were two other HPT's and an IHT in the room and did not smell any odors or have symptoms and refused HPMC evaluation. SOEN sent,
- 1603 – Entering AOP-015 for odors with symptoms in 702AZ CAM room related to 1544 entry SOEN sent and notified.
- 1638 – Initiated EIR-2016-023 "AOP-015 Entry at 4th and Canton" POC and EIR-2016-024 "AOP-015 Entry at 702-AZ" POC SOEN sent and notified.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 1 (Cont.)

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5/4/16

- 1645 - Update to 0940 entry: reports that was released to return to work with no restriction. A decision was not made of personal vs work related. SOEN sent, is notified.
- 1646 - Notified AMEC/IMECH pipefitters and one labor involved in AOP-015 event on 4th and Canton Pl.
- 1744 - SOEN sent for 1521 entry.
- 1751 - Employee from 1521 entry was released to return to work with no new restrictions. SOEN sent,
- 1752 - report that the employees from the 1402, 1518, and 1544 entries have been returned to work without restrictions. SOEN sent, notified.
- 1812 - Notified of 1536 and 1444 entry. SOEN sent for 1444 entry.
- 1820 - Weather Advisory: 1700 - 2400, winds 15 - 25 with gusts to 35. SOEN sent.
- 1823 - IHT completed flam gas surveillances of AY/AZ Farms. All tanks read 0% of the LFL.
- 1824 - Entered LCO 3.1.A on 7/24/15 @ 0845 hours for AY/AZ Farms In-Service-VTP Inoperable. LCO 3.1.A.2.1 due NLT 5/7/16 @ 0854 hours. LCO 3.1.A.2.3 due

1956 - Received as CSN by [redacted] reports none

1856 - Assumed duties as CSN.

1947 - Retrieval personnel reported lightning strikes in the direction of WIP. Confirmed lightning within 50 miles by the Pendleton weather Station. Entered AOP-014 for lightning within 50 miles.

2059 - For [redacted] sample results for both AOP-015 events today are well below action limits. Exiting AOP-015

2101 - Left voicemails for

2111 - Notified

2145 - POP-107 restarted initiating C-102 + C-105.

2211 - AY/AZ IHT and UPT sweeps complete, VCZ down posted.

2327 - Exited AOP-014, lightning >50 miles. Confirmed via Pendleton weather station.

5/5/16 C-Shift

2056 - reported that S and smelled a propane odor at 4th Pl. of Canton, consistent with yesterdays reported odors. No symptoms, declined medical surveillance. Does not meet AOP-015 entry requirements.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 2

Washington River Protection Solutions TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT	PER Number: N/A																									
Time/Date & Event location: 1330 05/04/2016 4 th AND CANTON																										
<p>1. <u>Event Summary (including number of workers involved and activity in progress):</u></p> <p>Three AEC fitters experienced "propane odor" and "elevated heart rates" (based on Nonin heart rate monitor readings performed after odor were encountered) at the corner of 4th St. and Canton Ave.</p> <ul style="list-style-type: none"> • Was an IHT Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No • Was Respiratory Protection Being Worn by Affected Worker(s)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 																										
<p>2. <u>Summary of Employee Reported Information (e.g., symptoms):</u></p> <p>No symptoms were reported.</p>																										
<p>3. <u>Identification of Source of the Concern:</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Investigating personnel arriving shortly after the initial report observed the odor. While the source is not certain, a nearby sewer was speculated to be a possible source.</p>																										
<p>4. <u>Time Line of the Event:</u></p> <p>1425: SOEN: "Entering AOP-015 for stronger than normal odors at the intersection of 4th and Canton Pl. CSM" 1426: IHs arrive at Central Shift Office (CSO) 1432: SOEN: "AOP-015 odors are of a propane nature. CSM" 1433: IHTs arrive at CSO 1434: IHTs briefed on response actions and leave to event scene 1437: AY/AZ IH contacts AN IH informs that IHTs form projects are currently surveying the area with DRI. 2100: SOEN: "Sample analysis for the TF-AOP-015 event(s) at 4th and Canton... completed and the results are below action limits. Exiting TF-AOP-015. CSM"</p>																										
<p>5. <u>Summary of IH Monitoring and Sampling Data:</u></p> <p>SEE DRI SURVEY# 16-03585 "AOP 15 Between 4th & Buffalo and Canton Pl. and 4th" SEE DRI SURVEY# 16-03540 "AOP-15 - Corner of Canton Place and 4th Street"</p> <p>a. <u>Monitoring</u></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>AGENT</th> <th>@ODOR</th> <th>@SOURCE</th> <th>EXPOSURE LIMIT</th> <th>REPORTING LIMIT</th> </tr> </thead> <tbody> <tr> <td>Ammonia</td> <td>0 ppm</td> <td>N/A ppm</td> <td>25 ppm OEL/35ppm STEL</td> <td>>0 ppm</td> </tr> <tr> <td>Total VOCs</td> <td>0.000 ppm</td> <td>N/A ppm</td> <td>2 ppm AL</td> <td>>0 ppm</td> </tr> <tr> <td>Mercury</td> <td>N/A mg/m³</td> <td>N/A mg/m³</td> <td>0.025 mg/m³ OEL</td> <td>0.000016 mg/m³</td> </tr> <tr> <td>Nitrous Oxide</td> <td>N/A ppm</td> <td>N/A ppm</td> <td>25 ppm AL</td> <td>>0 ppm</td> </tr> </tbody> </table>		AGENT	@ODOR	@SOURCE	EXPOSURE LIMIT	REPORTING LIMIT	Ammonia	0 ppm	N/A ppm	25 ppm OEL/35ppm STEL	>0 ppm	Total VOCs	0.000 ppm	N/A ppm	2 ppm AL	>0 ppm	Mercury	N/A mg/m ³	N/A mg/m ³	0.025 mg/m ³ OEL	0.000016 mg/m ³	Nitrous Oxide	N/A ppm	N/A ppm	25 ppm AL	>0 ppm
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EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 2 (Cont.)

Washington River Protection Solutions TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT	PER Number: N/A
Time/Date & Event location: 1330 05/04/2016 4th AND CANTON	
<p>b. GCMS Sample Results:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> </div> <p>No results significantly different than the instrument blank were noted for this HAPSITE evaluation.</p> <p>c. Sampling:</p> <ul style="list-style-type: none"> • <u>Source</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No • <u>Area</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No • <u>Personal</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <p>6. Weather Conditions at Time of Event: Station 6 1030 05/02/2016</p> <ul style="list-style-type: none"> • <u>Wind Direction & Speed</u> N @ 3mph • <u>Barometric Pressure (steady/rising/falling)</u> 29.35 inHg Falling • <u>Temperature (°F)</u> 72.0 °F • <u>Humidity</u> 38% <p>7. Recommendations/Conclusions: N/A</p> <p>8. Other: See EIR-2016-023</p> <p>Odor response plan:</p>	

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 2 (Cont.)

Washington River Protection Solutions		PER Number
TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT		N/A
Time/Date & Event location: 1330 05/04/2016 4th AND CANTON		
9. IH Monitoring/	Surve	
Mgmt.	(Sign)	

Attachment 3

ODOR RESPONSE CARD - 241-AX FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 12:45 pm 5-4-2016
- Your name and the work you were performing Driving
- Location of odors (mark area on map and wind direction) London RD
- Name(s) of others in or near the affected area _____
- Was an IHT present? NO
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: Propane
- Possible Source _____
- 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.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-AX FARM

1. Contact CSM, Complete below bulleted information and map.

● Date and time odor was noticed 5-4-2016 12:45 pm

● Your name and the work your were performing - DRIVING

● Location of odors (mark area on map and wind direction) CANTON AVE. EAST OF EVAPORATOR

● Name(s) of others in or near the affected area _____

● Was an IHT present? _____

● Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: PROPANE TYPE

● Possible Source No propane found in the area

● 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.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-AX FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 5-4-16 12:45 pm, also again around 1:10 pm safety meeting
- Your name and the work you were performing Driving to work area
- Location of odors (mark area on map and wind direction) Canton Ave. East of evaporator
- Name(s) of others in or near the affected area _____
- Was an IHT present? No
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: Propane-like smell
- Possible Source couldn't find propane in area
- 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: Small headache, starting about 20 mins after smell

2. Send this card to the Central Shift Office.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-AX FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 5-4-16 1420
- Your name and the work you were performing _____ evaluation
- Location of odors (mark area on map and wind direction) 242-A Parking Lot
- Name(s) of others in or near the affected area _____
- Was an IHT present? Yes SWID: 16-03549
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: _____
- Possible Source Unknown
- 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

SWID

2. Send this card to the Central Shift Office.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-A FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 5-4-16 3:00 pm
- Your name and the work you were performing driving thru 4th & canton
- Location of odors (mark area on map and wind direction) 4th & canton
- Name(s) of others in or near the affected area _____
- Was an IHT present? NO
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: potentially smell
- Possible Source _____
- 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: _____

2. Send this card to the Central Shift Office.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-AX FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 5-4-16 2:30 pm
- Your name and the work your were performing _____
- Location of odors (mark area on map and wind direction) outside AX tent by evaporator
- Name(s) of others in or near the affected area _____
- Was an IHT present? yes but was sampling for noise
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: kind of a propane hint to it
- Possible Source 3 Tanks
- 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: _____

2. Send this card to the Central Shift Office.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-A 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
 - 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.

241-A FARM

Wind Direction

	N	
W		E
	S	

*4th
canton*

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-A FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 5-4-16
- Your name and the work you were performing _____
- Location of odors (mark area on map and wind direction) 4th Canton
- Name(s) of others in or near the affected area _____
- Was an IHT present? N/A
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: Propane
- Possible Source unknown
- 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.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-A 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
 - 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.

241-A FARM

Wind Direction

N
W E
S

On the curb Cutting job in Expansion Parking lot

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-A FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 05/04/2
- Your name and the work you were performing _____
- Location of odors (mark area on map and wind direction) Near evaporator in parking lot
- Name(s) of others in or near the affected area en
- Was an IHT present? NO
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: propene
- Possible Source _____
- 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.

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-A 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
 - 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.

241-A FARM

241-A FARM

Wind Direction

N
W E
 S

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SEE ATTACHED PICTURE

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 3 (Cont.)

ODOR RESPONSE CARD - 241-A FARM

1. Contact CSM, Complete below bulleted information and map.

- Date and time odor was noticed 05-04-2016 2:10 PM
- Your name and the work you were performing _____
- Location of odors (mark area on map and wind direction) Wind 1-2 mph swirling. From South east
- Name(s) of others in or near the affected area _____
- Was an IHT present? Yes
- Describe the odor Sweet Sour Musty Earthy Metallic Smoky Rotten Onion
 Cleaning Solution Ammonia Other: Propane type smell
- Possible Source Not sure
- 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: No symptoms

2. Send this card to the Central Shift Office.

EIR-2016-023 “Entry into AOP-15 for Odors at Intersection of 4th and Canton”

Attachment 3 (Cont.)



Attachment 4

From:
Sent: 2016 11:35 AM
To:
Cc:
Subject: AOP-015 4th and Canton EIR-2016-023
Attachments: Message from KMBT_CS52; Message from KMBT_CS52; Message from KMBT_CS52;
Message from KMBT_CS52; Message from KMBT_CS52; Message from KMBT_CS52;
Message from KMBT_CS52

Still need odor card from [redacted] was in the same area as [redacted] and [redacted] described the smell as a foul propane odor.

Here is the timeline for the AOP-15 on the suspected propane odor on Wednesday 05/04/2016.

At 1335 I received a phone call from pipefitter foreman that he and 2 other pipefitters had smelled an odor while driving down Canton place from 4th street. At the time of the phone call I was in the evaporator parking lot observing work on the concrete cutting. I smelled the propane odor right before I received the call. After the phone conversation I spoke to FWS and he too smelled the same propane type odor in intermittent waves. FWS and I believe it may be coming from septic tank or maybe the front end loader. Safety and FWS walked around septic tank and had the operator start the front end loader to see if the intermittent propane smell we had smelled came from either of the suspect areas. We also walked up to 272AW where we could see propane tanks and talked to the control room at the evaporator to see if they were running anything that would create the propane smell. We had only smelled the odor right in the area of Canton place and only on 3 short durations (a whiff).

At 1402 after walking the suspected areas we determined this was an unexpected smell in the area I notified shift office.

At 1410 I notified SST/R&C Safety and Health manager so he could send out IHT to the area.

1425 entered into AOP-015

1 pipefitter wanted to be evaluated at HPMC so I drove him back to MO-194 to meet with his general foreman to take him to HPMC. GF and worker left mobile office towards HPMC. The 2 other pipefitters who were now working in AX farm also wanted to be seen by HPMC (they were the other two who were driving down the road and smelled the odor). All work groups who had the potential to be affected were grouped together and briefed. 1 more worker who had smelled the propane odor and was experiencing symptoms that may have been related elected to go to HPMC as well (he was working on the concrete cutting job in evaporator parking lot). FWS and Safety who had smelled odor elected not to go to HPMC.

SST
Safety and Health
American Electric, Inc.
[redacted]

EIR-2016-023 "Entry into AOP-15 for Odors at Intersection of 4th and Canton"

Attachment 5

From:
Sent: Thursday, May 05, 2016 2:32 AM
To:
Subject: Time Line for 05/04/2016 AOP-15

Here is the timeline for the AOP-15 on the suspected propane odor on Wednesday 05/04/2016.

2:20 ... Notified that the crew working on the new 242 Evaporator Gate smelled a propane type of odor in their work area.

2:26 ... Contacted shift office asking if this crew needed to evacuate their work area and what exit route did he want them to use to exit the area. Told to have the work crew move to the west and meet in the evaporator parking lot. From there they could be transport to the construction trailers.

2:30 ... Received a phone call from FWS

north.

2:30 ... Received a phone call from FWS, but was on the phone with confirmed he would talk to since they were in the same location

2:31 ... Talked to AEI safety and was requested to contact FWS to confirm the exit direction from the AX Tent was over the berm.

2:32 ... Called FWS and requested him to call shift back to confirm the direction of the exit route.

2:45 ... Received second phone call from FWS and was told that the shift office said that those

Attachment 6

EIR-2016-023 AOP-015 Entry at 4th and Canton Avenue

