**EVENT INVESTIGATION REPORT**

Event Investigation Report, EIR-2019-014
244A AOP-015 Entry
EIR-2019-014

*Figure 1. 244-A Instrumentation Building*

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Event Investigator

Per Responsible Manager

PER No. WRPS-PER-2019-0574

Page 1
### 244A AOP-015 Entry

#### AOP-015 Summary

<table>
<thead>
<tr>
<th>Event</th>
<th>Abnormal Operations for Odors Reported Inside 244A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER</td>
<td>WRPS-PER-2019-0574</td>
</tr>
</tbody>
</table>
| Date/Time of Event | • March 21, 2019  
• 0945 hours |
| Location | • Inside 244A Building |
| Personnel Affected | (3) WRPS personnel reported odors. Personnel and reported zero (0) symptoms and elected not to receive a medical evaluation |
| Odor / Taste | Personnel described the odors as:  
• Musty  
• Earthy  
• Ammonia-like |
| Industrial Hygiene (IH) Investigative Monitoring / Sampling | Monitoring and Sampling results:  
• Ammonia: <DL*  
• Total VOCs: <DL  
• Nitrous Oxide: <DL  
• Mercury: 4 ng/m³ (actionable hazard level for Mercury in 12,500 ng/m³)** |
| Potential Source | • Recent snow melt and warmer temperatures (48°F) may have created an environment for mold growth within the building. |
| Wind Speed / Direction | NW @ 4mph, barometric pressure at 29.3” |
| Waste Disturbing or Tank Work in Adjacent Area | No waste disturbing activities were occurring at the time. |
| Other Work in Adjacent Area | No adjacent work was being performed at the time. |
Investigation Summary

On March 21, 2019, at 0945 hours, one (1) WRPS Instrument Specialist and two (2) WRPS Industrial Hygiene Technicians (IHT) encountered a musty, earthy, ammonia-like odor upon opening the door of the 244-A Instrument Building to perform quarterly weight factor (WFT) readings. Before proceeding further, an IHT took readings by placing a MultiRAE instrument through the cracked door. Readings from the instrument showed chemicals of concern to be below the detectable level. Personnel contacted the Field Work Supervisor (FWS). The FWS directed the personnel to secure the door and report to the AY/AZ Area Dayshift Manager (ADM).

At 1000 hours, informed the ADM and the Production Operations Industrial Hygiene Manager of the event. Then the affected individuals reported to the Central Shift Office (CSO). At 1012 hours, Industrial Hygienists (IH) arrived at the CSO and were briefed. AN Field IH and COMS Field IH directed the affected personnel to fill out odor response cards. The affected personnel reported that they did not experience symptoms and all three (3) declined a medical evaluation. At 1017, the CSO sent out a shift office event notification (SOEN) to announce entry into procedure TF-AOP-015, Response to Reported Odors or Unexpected Changes to Vapor Conditions (AOP-015) for 244-A Instrument Building and to restrict access to the area surrounding the building.

At 1038 hours, Production Operations (PO) Shift IHTs, PO Shift Health Physics Technician (HPT), Effluent Treatment Facility (ETF) Field IH, and AY/AZ IHT Supervisor mobilized to 244-A at 1038 hours to perform monitoring and grab sampling. Grab sampling was performed both inside and outside the 244-A building. HAPSITE analysis was performed and chemicals of concern were found to be below background levels. Survey readings from direct read instrumentation (DRI) also exhibited chemicals to be below detectable levels (DL). Results of the testing were communicated to the Central Shift Manager (CSM). At 1626 hours, the AOP-015 was exited.

An Event Investigation was initiated at ~1200 hours. The affected personnel filled out odor response cards and one of the affected personnel was later interviewed. An official Event Investigation meeting was not held. Beyond the initial odor investigation, there was a concern as to whether or not an HPT was present when readings were being performed under low radiological risk work package #399165. Further, individuals who filled out the odor response cards did not mention other personnel to have been in the affected area. The HPT was later discovered to have been present but outside the fence and less than 10 feet away at the time. The procedure requires the HPT to provide continuous coverage when opening the contaminated or potentially contaminated systems. A performance evaluation request (PER) was issued to ensure work is being performed to the procedure.

Source of the odors was undetermined although not expected to be tank waste related. The 244-A Instrument Building houses the 244-A Air Compressor, including controls and instrumentation, to supply instrument air to the 244-A catch tank dip tubes. It is located within a contamination area and sump level readings are to be taken quarterly. The building relies on passive ventilation. Location of the building is ~300 meters southwest of the nearest tank in AN Farm. At the time of the event, there were zero (0) waste disturbing or tank-intrusive activities occurring in the nearby tank farms. Wind directions were from the northwest traveling at 4 mph with barometric pressure readings at 29.3”. The temperatures were above freezing and had been above freezing for several days which led to considerable ice and snow melt. The increase in moisture and warmer
temperatures may have attributed to the growth of mold or mildew. On March 26, 2019, at ~1400 hours the 244-A building was accessed and it was noted by personnel that there were no significant odors.
Event Investigation Report, EIR-2019-014, 244A AOP-015 Entry

Event Timeline

Field Response Timeline:

1000: AV/IAZ ADM contacts PO IH Manager to notify of event.
1012: COMs Field IH, AN Field IH, ETF Field IH, 222S Field IH arrive at CSO and are briefed by affected individuals
1014: AN Field IH and COMs Field IH direct affected personnel to populate Odor Response Cards
1015: CSM 1 questions work crew on event and offers precautionary medical, all declined
1016: CSM 1 briefs COMs Field IH, AN Field IH, ETF Field IH, 222S IH
1017: CSM 1 enters TF-AOP-015
1017: SOEN: “Entering AOP-015 for 244A lift station. All personnel stay clear of 244A lift station. CSM”
1021: COMs Field IH contacts PO IH Manager to request support, IHTs, IH Programs notification
1023: CSM declares response actions as per TF-AOP-015 3.1.12
1024: PO Field IH arrives at CSO
1025: CSM 1 is notified that AV/IAZ IHT (affected personnel) alarmed a PCM in AV2 Change Trailer (MO193) at 0955
1026: PO Shift IHTs arrive at CSO
1032: COMs Field IH contacts PO IH Lead to begin warming up supporting IH instrumentation
1033: CSM 1 requests PO Shift NCOs perform access restriction
1034: PO IH Lead confirms MIRAN Saphire II and Ohio LumeX are warming up.
1034: PO Shift IHTs are briefed on response actions:
   • RPE as per RFF TF-AOP-015 Task 2
   • Monitoring as per IHP-00091
   • Collect 2 grab samples: 1 from inside of 244A, 1 from area outside of 244A
   • Analyze grab samples with MIRAN Saphire II, Ohio LumeX HAPSITE6 (VOC)
1036: PO Shift HPT 1 arrives at CSO to support response actions, and is briefed by AN Field IH
1038: PO Shift IHTs, PO Shift HPT, ETF Field IH, AV/IAZ IH Supervisor depart CSO to perform response actions
1047: COMs Field IH contacts AN IH Supervisor to direct AV/IAZ IH (affected personnel) to post DRI instrumentation used during initiating event and to create DRI Survey
1052: One concerned HPT Supervisor and one concerned HPT inform CSM 1 that 244A is not routinely surveyed, and that additional HPT support for response actions is necessary.
1053: Concerned HPTs leave CSO to determine if appropriate HPT resources were allocated to evolution ongoing during initiating event.
1057: PO IH Lead asks PO IH if Ohio LumeX and MIRAN Saphire II are still needed to support response actions. PO IH informs PO IH Lead that they are.
1059: COMs Field IH contacts ETF Field IH to relay grab sample monitoring expectations to PO Shift IHTs
1100: PO Shift HPT 2 arrives at CSO to support response actions and is briefed by COMs Field IH and PO Field IH
1102: PO Shift HPT 2 leaves CSO to support response actions
1104: AN IH supervisor arrives at CSO
1106: CSM 1 notified by Radcon Supervisor that AV/IAZ IH (affected personnel) alarmed PCM presumably due to radon on polyester jacket. Jacket is bagged awaiting further investigation by Radcon
1106: ETF Field IH contacts COMs Field IH for further clarification on location and circumstances of initiating event.
1110: AV/IAZ IH Lead notified COMs Field IH that DRI Survey for the initiating event is DRI # 19-01848
1113: AN IH Supervisor notifies AN Field IH that instrument from initiating event posted successfully.
1116: AN IH Supervisor attempts to contact IH Programs IH Lead, and is unsuccessful, then contacts IH Programs IH Supervisor, to request HAPSITEs be prepared to support analysis of grab samples.
1129: ETF Field IH, AV/IAZ IHT Supervisor arrive at MO287 and brief AN Field IH and COMs Field IH on status of ongoing response actions.
1144: AV/IAZ IHT Supervisor attempts to contact FWS for initiating event to determine whereabouts and health status of HPT and NCO who supported work evolution.
1148: AV/IAZ IHT Supervisor contacts AV/IAZ IHT (affected personnel) to inquire if the NCO and HPT assigned to the work evolution were present during the initiating event.
1151: AV/IAZ IHT (affected personnel) notifies AV/IAZ IH Supervisor that "HPT and NCO were outside the fence, but less than 10 feet away”
1207: FWS contacts AV/IAZ IHT Supervisor and notifies that NCO and HPT declined medical evaluation
1223: PO Shift IHTs arrive at MO287 and brief AN Field IH, COMs Field IH, ETF Field IH, and PO Field IH that all readings were <DL
1223: PO IH Lead notifies COMs Field IH that MIRAN Saphire II in temporary 200E Po IH Lab (MO11) is having trouble pre-function testing.
1233: COMs Field IH and AN Field IH brief CSM 2 on initial findings during response.
1236: EIR # was assigned by CSM 2
1238: CSM 2 contacts Contractor Assurance with EIR # and Title update
1626: SOEN: “Exiting AOP-015 for 244A DCRT. Sample results are below background levels. Normal access is restored to 244A. CSM”
Immediate Actions Taken

1. 3/21/2019 At ~0945 hours when personnel opened the door of the 244A Lift Station they encountered must, mildew, and ammonia-like odors. They proceeded to take a direct reading of the interior air through a crack in the door using a MultiRAE instrument. The MultiRAE indicated that hazardous chemical emissions were below detectable levels. The personnel proceeded to notify their FWS who directed them to close the door, exit the location, and report to the CSO.

A SOEN went out declaring an AOP-015 and access to the area was restricted. Monitoring and sampling inside and outside the 244A building occurred shortly thereafter. Results of the testing showed chemicals to be below background levels and normal access was resumed at 1626 hours.

Discussion of Potential Causes

Source of the odors was undetermined. At the time of the event, there were zero (0) waste disturbing or tank-intrusive activities occurring in the nearby tank farms. Wind directions were from the northwest traveling at 4 mph with barometric pressure readings at 29.3”. The temperatures were above freezing and had been above freezing for several days which led to considerable ice and snow melt. The increase in moisture and warmer temperatures may have attributed to the growth of mold or mildew. On March 26, 2019, at ~1400 hours the 244A building was accessed and it was noted by personnel that there were no significant odors.

Recommended Actions

It is recommended that remote surveillance instrument be installed and run outside the fence to minimize the frequency of having to breach the instrument building and risk contamination.

Attachments:

1. WRPS-PER-2019-0574
2. Industrial Hygiene Investigative Report
Attachment 1 – WRPS-PER-2019-0574
**Problem Evaluation Request (PER)**

**PER No**
WRPS-PER-2019-0574

**Discovery Date/Time**
03/21/2019 09:00

**Project**
Production Operations: Tank Farms

**Location**
Multiple Tank Farms

**How Discovered?**
Routine Work/Maintenance

**Equipment ID Number**

**Source Document**

**PER Title**
244A weight factor readings AOP15

**Description of Concern or Problem**
On 03/21/19 AY/AZ team was performing a quarterly PM weight factor reading of 244a tank. While entering instrument building at 244a lift station a strong pungent chemical fertilizer smell was encountered by IH technician and instrument technician causing an AOP-15. In the past there have been LFL readings, odors and spider webs (inside CA boundary) all causing stop work incidents.

**Immediate actions Taken**
Stop work and AOP-15.

**Recommended Corrective Actions**
Reduce the exposure to potential hazards by installing remote access panel with instrument tubing and valves to perform repetitive work.

**Shift Office Contact**
No Shift Office contact required.

**Originator Contact**
No

<table>
<thead>
<tr>
<th>Originators Name</th>
<th>Originators ID</th>
<th>Originators Phone</th>
<th>Date Initiated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>03/26/2019</td>
</tr>
</tbody>
</table>

**SHIFT OFFICE REVIEW**

**Reportability**
Non-Reportable

**SSC Operability**
N/A

**Operability Review**
N/A

**Compensatory Actions Taken**
No compensatory measures implemented.

**Additional Actions Taken or Recommended**
No additional actions taken by Shift Operations.

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<tr>
<th>SO Reviewer Name</th>
<th>SO Reviewer ID</th>
<th>SO Reviewer Phone</th>
<th>SO Review Date</th>
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<tbody>
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<td></td>
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<td>03/26/2019</td>
</tr>
</tbody>
</table>

**SCREENING**

**PER Significance Level**
Analysis Level

**PER with Resolution**
Not Applicable

**Ind Assessment Rev**
Occurrence Rpt #

**DOE CAP Required?**
No

**Assigned Responsible Manager**
Facilities Rep / SSO
Safety Mgmt Rep

**Potentially Recurring Issue**
No

**Program Trend Codes**
- N/A

- 000000 - Not Applicable / None / None
- HZ30A - Industrial Hygiene / Odor/Vapor / AOP-15

4/2/2019
PER Screenig Comments

03-27-19
PER with Resolution to EIR-2019-014

ORPS Code
Not Applicable

PER Screening Chair

PER Screening Chair ID

PER Screening Chair Phone

PER Screening Date
03/27/2019

PAAA Review

PAAA Screening
Not subject to PAAA

PAAA Cause Analysis Review
No

PAAA Screening Comments
1) Basis for PAAA screening is in file attached to PER. In file, see highlighted green text for non-compliance.
2) Approval per procedure TFC-EBHQ-PAAA-D-08 dated 9/12/2018 (paragraph 4.1.5-7).

PAAA Reviewer Name

PAAA Review Date
03/27/2019

PAAA Approver Name

PAAA Approve Date
03/27/2019

Cause Analysis

Problem Statement

Compensatory Actions

Cause Analysis

Causes

Extent of Condition

HPI Error Precursors

Task Demands

Work Environment

Individual Capabilities

Natural Tendencies/Human Nature

Has the evaluation of this PER resulted in additional information that could affect the Central Shift Office (CSO) determination of operability or reportability?

No

Comments

Submitter Name

Submitter ID

Submitter Phone

Initial Submit Date

CAUSE CODES

ATTACHMENTS

Link to PER

4/2/2019
### AUDIT HISTORY

<table>
<thead>
<tr>
<th>Change Date</th>
<th>Auditor</th>
<th>Comments</th>
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<tbody>
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<td>Initiator Tab initial submission.</td>
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<tr>
<td>03/26/2019 10:47</td>
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<td>SO Tab initial submission.</td>
</tr>
<tr>
<td>03/27/2019 13:22</td>
<td></td>
<td>Screening Tab initial submission.</td>
</tr>
<tr>
<td>03/27/2019 15:28</td>
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<td>PAAA Tab initial submission.</td>
</tr>
<tr>
<td>03/28/2019 10:06</td>
<td></td>
<td>Responsible Manager Task Launched by</td>
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</tbody>
</table>
Attachment 2 – Industrial Hygiene Investigative Report
Event Investigation Report, EIR-2019-014, 244A AOP-015 Entry

TF-AOP-015 INDUSTRIAL HYGIENE INVESTIGATION REPORT

Time/Date & Event location:
0945 03/21/2019 244A lift station

1. Event Summary (including number of workers involved and activity in progress):

1 (1), 2 IHTs performing quarterly sump readings at 244A encountered odor (musty, earthy, ammonia, "fertilizer") upon opening door. The IHT stuck MultiRAE nozzle through crack in door and observed reading <0L. Personnel secured door and left the area.

- Was an IHT Present during initiating event? [X] Yes [ ] No

2. IH Monitoring/ Sample Survey Reports:

Initiating Event 19-01848 "Repetitive Quarterly WFT Readings; 244-A"
Event response 19-R1R73 "AOP-015 244-A DCR2"

Weather Conditions at Time of Event:

Ambient outside conditions:
- Weather station: 6 @ 0945
- Wind Direction and Speed: NW @ 4 mph
- Barometric Pressure (steady/rising/falling): 28.3" and steady
- Temperature (°F): 42°
- Humidity: 62.6%

Page 1 of 8
A-4606-744 (REV 5)
Field Response Timeline:

1000: AY/AZ ADM contacts PO IH Manager to notify of event.
1012: CME Field IH, AN Field IH, ETF Field IH, 222S Field IH arrive at CSO and are briefed by affected individuals.
1014: AN Field IH and ColM Field IH direct affected personnel to populate Odor Response Cars.
1016: CSM 1 requests CME Field IH, AN Field IH, ETF Field IH, 222S IH
1017: CSM 1 enters TF-AOP-015
1017: SOEN: "Entering AOP-015 for 244A lift station. All personnel stay clear of 244A lift station. CSM".
1021: CME Field IH contacts PO IH Manager to request support. IH, IH Programs notification.
1023: CSM 1 declares WPS actions as per TF-AOP-015 3.1.12.
1024: PO Field IH arrives at CSO.
1025: CSM 1 notifies that AY/AZ IH (affected personnel) alarmed a PCM in Ay2 Change Trailer (MO108) at 0856.
1026: PO Shift IH shifts arrive at CSO.
1032: CME Field IH contacts PO IH Lead to begin warming up supporting IH instrumentation.
1033: CSM 1 requests PO Shift NCOs perform access restriction.
1034: PO IH Lead confirms MIRAN SapphRe and Otoh Lumex are warming up.
1034: PO Shift IHs are briefed on response actions:
- RPE as per RPF TF-AOP-015 Task 2
- Monitoring as per IH-09001
- Collect 2 grab samples: 1 from inside of 244A, 1 from area outside of 244A
- Analyze grab samples with MIRAN SapphRe (NIO), Ohio Lumex (Hg), MultiRae (Nhe, VOC), HAPSITE (VOC)
1036: PO Shift HT 1 arrives at CSO to support response actions, and is briefed by AN Field IH.
1038: PO Shift IH shifts, PO Shift HT, ETF Field IH, AY/AZ IH, IH Supervisor depart CSO to perform response actions.
1047: CME Field IH contacts an IH Supervisor to direct AY/AZ IH (affected personnel) to post DRI instrumentation used during initiating event to create DRI Survey.
1052: Concerned HPT Supervisor and one concerned HPT inform CSM 1 that 244A is not routinely surveyed and that additional HPT support for response actions is necessary.
1053: Concerned HPTs leave CSO to determine if appropriate HPT resources were allotted to evolution ongoing during initiating event.
1057: PO IH Lead asks PO IH if Ohio Lumex and MIRAN SapphRe are still needed to support response actions. PO IH informs PO IH Lead that they are.
1059: CME Field IH contacts ETF Field IH to relay grab sample monitoring expectations to PO IH Lead.
1100: PO Shift HT 2 arrives at CSO to support response actions and is briefed by CME Field IH and PO Field IH.
1102: PO Shift HT 2 leaves CSO to support response actions.
1104: AN IH supervisor arrives at CSO.
1106: CSM 1 notified by Radcon Supervisor that AY/AZ IH (affected personnel) alarmed PCM presumably due to radon on polyester jacket. Jacket is bagged awaiting further investigation by Radcon.
1106: ETF Field IH contacts CME Field IH for further clarification on location and circumstances of initiating event.
1110: AY/AZ IH Lead notified CME Field IH that DRI Survey for the initiating event is DRI # 16-01668.
1113: AN IH Supervisor notifies AN Field IH that instrument from initiating event posted successfully.
1116: AN IH Supervisor attempts to contact IH Programs IH Lead and is unsuccessful, then contacts IH Programs IH Supervisor to request HAPSITE be prepared to support analysis of grab samples.
1129: ETF Field IH, AY/AZ IH Lead arrive at MO267 and brief AN Field IH and CME Field IH on status of ongoing response actions.
1144: AY/AZ IH Lead attempts to contact FWS for initiating event to determine whereabouts and health status of HPT and NCO who supported work evolution.
1148: AY/AZ IHT Supervisor contacts AY/AZ IHT (affected personnel) to inquire if the NCO and HPT assigned to the work evolution were present during the initiating event.

1151: AY/AZ IHT (affected personnel) notifies AY/AZ IHT Supervisor that "HPT and NCO were outside the fence, but less than 10 feet away".

1207: FWS contact AY/AZ IHT Supervisor and notifies that NCO and HPT declined medical evaluation.

1223: PO Shift IHTs arrive at MO267 and brief AN Field IH, COMs Field IH, ETF Field IHT, and PO Field IH that all readings were <DL.

1223: PO IHT Lead Notifies COMS Field IH that MIRAN Sapphire in temporary 200E PO IHT Lab (MO911) is having trouble pre-function testing.

1233: COMs Field IH and AN Field IH brief CSM 2 on initial findings during response.

1238: EIR # was assigned by CSM 2.

1238: CSM 2 contacts Contractor Assurance with EIR # and Title update.

1628: SOEN: "Exiting AOP-015 for 244A DCRT. Sample results are below background levels. Normal access is restored to 244A. CSM"
2. GCMS Sample Results:

See Attachment A for HAPSITE (GCMS) results

HASPITE Chromatographs are available in SWHD survey number
3. Additional Information:

- Odor Response Cards received:

  ODOR RESPONSE CARD

  1. Contact CBM, Complete below bulleted information and map.
  2. Date and time odor was noticed: 2-22-19
  3. Your name and the work you were performing: [Name and Position]
  4. Location of odor (point ever on map and write direction): N20° 4 m, E
  5. Name(s) of others in or near the affected area: [Names]
  6. Was an IH report? [Yes/No]
  7. Describe the odor: [Oder Description]
  8. Possible Source: [Source]
  9. Your symptoms if any: [Symptoms]

2. Send this card to the Central Shift Office.
Event Investigation Report, EIR-2019-014, 244A AOP-015 Entry

ODOR RESPONSE CARD

1. Contact CSN, Complete below bulleted information and map.
   - Date and time odor was noticed:
   - Your name and the work your name performing:
   - Location of odor (mark area on map and wind direction):
   - Name(s) of others in or near the affected area:
   - Was an IFT present?:
   - Describe the odor:
     - Sulfur:  
     - Ammonia:
     - Other:
   - Possible Scents: [ ]
   - Your symptoms (if any):
     - Headache:
     - Dizziness/Light-Headed:
     - Nausea:
     - Cough:
     - Fatigue/Devinement/Weakness:
     - Shortness of Breath:
     - Difficulty Breathing:
     - Watery/Red/Itched Eyeshot/Frustration with Vision:
     - Tingling/Hardness/Paresthesia:
     - Rash/Itching:
     - Other:
   - Send this card to the Central Shift Office.

ODOR RESPONSE CARD

Odoles Detected with OD
Symptoms
1. Notify Immediate Supervisor.
2. Contact Central Shift Manager. Provide the indicated information above.
3. Complete map, return to Central Shift Office as soon as practicable.
4. Notify In-Shift Supervisor.
5. Contact CSN, complete below bulleted information and map.
   - Your name and the work your name performing:
   - Your symptoms (if any):
   - Date and time odor was noticed:
   - Location of odor (mark area on map and wind direction):
   - Name(s) of others in or near the affected area:
   - Was an IFT present?:
   - Other:
6. Provide information on the back of card.
7. Send this card immediately to the Central Shift Office.
Event Investigation Report, EIR-2019-014, 244A AOP-015 Entry

Summary of IH Monitoring and Sampling Data:

a. Monitoring:

Event Initiation survey: 19-01848 "Repetitive Quarterly WFT Readings; 244-A"
DRI field readings:

VOC: <DL
NH₃: <DL

Event Response: 19-01873 "AOP-015 244-A DCRT"
DRI field readings:

VOC: <DL
NH₃: <DL

b. Sampling:

VOC: <DL
NH₃: <DL
N₂O: <DL
Hg: 4 ng/m³

4. Summary of Employee Reported Information (e.g., symptoms)

No symptoms were reported. Voluntary medical evaluation was declined by all employees.

5. Recommendations/Conclusions:

Identification of Source of the Concern: [ ] Yes [X] No

No recommendations at this time.

6. Other:

N/A

S&H Program Management:

Page 8 of 8
Attachment A

GCMS Laboratory Results
HAPsite GC-MS Bag Sample Results Survey 19-01873: AOP-15 at 244A DCRT

Two bag samples were collected in response to an odor reported at 244A DCRT. These samples were analyzed using an Inficon HAPsite GC-MS on March 21, 2019. Data was interpreted on March 21, 2019, and reported the same day. Results for the Air Blank Sample were satisfactory. The same compounds were found in 244A DCRT Inside and 244A DCRT Outside at concentrations consistent with sample bag contaminants. No compounds were found at concentrations of concern. No compounds were found at concentrations above background.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Clean Air Blank</th>
<th>244A DCRT Inside</th>
<th>244A DCRT Outside</th>
<th>Sample Bag Contaminant</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Internal Standard #1</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>Added by instrument during analysis</td>
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<tr>
<td>Methyl Methacrylate</td>
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<tr>
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If you have questions contact