

# **AOP-015 Event Investigation Reports (Redacted) EIR-2023-068 (09/05/2023)**

**(Settlement Agreement Deliverable)**

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy  
Office of River Protection under Contract DE-AC27-08RV14800



**P.O. Box 850  
Richland, Washington 99352**

# AOP-015 Event Investigation Reports (Redacted) EIR-2023-068 (09/05/2023)

## (Settlement Agreement Deliverable)

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Date Published

September 2023

WRPS

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**APPROVED**

*By Lynn M Ayers at 10:13 am, Sep 25, 2023*

Release Approval

Date

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**EVENT SUMMARY**

**NOTE:** This form provides timely notification to management and documents preliminary information of an event that may require a more formal investigation. Details may change upon further examination and analysis. The following is a current status of available information:

1. **Project:** Retrieval & Closure Construction      2. **Report Date:** 09/12/2023
3. **Investigation Title:** TF-AOP-015 at A-105
4. **Investigation Report Number:** EIR-2023-068
5. **Responsible Manager:** [REDACTED]
6. **Event Investigator:** [REDACTED]
7. **Area / Building / Location:** 200E/241-A-FARM/ North of 241-A-105
8. **Date and Approximate Time of Event:** **Date:** 09/05/2023      **Time (military):** 1302 HOURS
9. **Associated Action Request (AR) Number:** WRPS-AR-2023-2331
10. **Associated Occurrence Report Number (if applicable):** N/A
11. **Event Investigation Meeting Held:** Yes [ ] or No [X]      **Date:** N/A      **Time (military):** N/A

**12. Activity in Progress:** (What activity was under way, include procedures and work order numbers, as applicable)

Workers were supporting Work Order (WO) # 990038, "A-101 Install Water/Hydraulic Hoses and Bridges for Retrieval." The work crew was performing excavation on the North side of 241-A-105 at the time of the event.

**13. Personnel Involved:** (Job positions, number of personnel, identify any support organizations or subcontractors)

12 Workers total:  
2 American Electric (AMEC) Field Work Supervisors (FWSs)  
5 Laborers (AMEC)  
1 Electrician (AMEC)  
4 HPTs (WRPS)

**14. What Happened:** (Provide a short discussion of what happened)

On 09/05/2023, at approximately 1259 hours, 6 workers (5 Laborers and 1 FWS) supporting the WO# 990038 work evolution were within 241-A-Farm north of single-shell tank 241-A-105 and had begun digging activities for excavation work when a Field Work Supervisor's (FWS) Ventis Pro Personal ammonia monitor (PAM) "Response Level" alarmed displaying an ammonia concentration of 7 parts per million (ppm). All 5 of the additional workers were in the immediate area of the individual when the Ventis Pro personal ammonia monitor alarmed. None of the other workers' Ventis Pro personal ammonia monitors alarmed or indicated elevated ammonia concentrations.

All 12 workers immediately evacuated the area. None of the 12 workers reported symptoms and declined precautionary medical surveillance. Access to the area around A-105 was restricted and TF-AOP-015, "Response to Personal Ammonia Monitor Alarm" was entered.

An Industrial Hygienist Technician (IHT) was dispatched to the area to take Direct-reading instrument (DRI) readings. DRI readings were found to be below action levels. Upon receiving the DRI results, the Central shift manager (CSM) exited TF-AOP-015 at 1301 hours and the restricted area around A-105 was down posted.

**15. Where Did It Happen:** (Description of work area and working conditions. Include information on weather conditions, PPE, Postings, etc.)

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Work was being performed around the 241-A-105.

Workers were wearing Full Face Air Purifying Respirator (FF-APR) respiratory protection with chemical vapor cartridges as required by Standing Order SO-OPS-17-003 "Use of Respiratory Protection in Tank Farms" and TFC-PLN-173 "Use of FFAPR in Actively Ventilated Tank Farms".

Workers were wearing Personal Ammonia Monitors (e.g., Ventis Pro)

The Hanford Site Meteorological Station #6 and Data Fusion and Advisory System (DFAS) application were utilized for outdoor weather details at the time of the event. The Hanford Site Meteorological Station and DFAS dashboard indicated the following weather conditions at 0800 hours on 08/16/2023:

- Wind Speed: 5.6 miles per hour (mph).
- Wind Direction: 75° East-Northeast (E-NE).
- Mixing Height: 140 feet above grade.
- Stability Class: D (Neutral conditions).
- Barometric Pressure: 29.14 inches Hg.

**16. Impact to Facility: (Caused by the event or a description of known consequences)**

The WO# #990038 work evolution was delayed, and access restricted to the area around AP-105 for approximately one hour. No additional impacts to scheduled 09/05/2023 work evolutions occurred.

**17. Immediate Actions Taken: (List immediate actions taken to stabilize the scene or respond to the event)**

- IHT verified no workers were experiencing symptoms and offered precautionary medical surveillance. Workers declined medical surveillance.
- CSM initiated TF-AOP-015 response actions and restricted access to the area around A-105.
- CSM requested Odor/Vapor Response Cards from affected workers.
- CSM made required TF-AOP-015 notifications.
- Production Operations shift Industrial Hygiene Technician (IHT) initiated TF-AOP-015 response actions and monitoring per IHSP-PROG-MULTI-TF-AOP-015. DRI area readings of the area around A-105 indicated a less than detectable (< 1 ppm) ammonia concentration.

CSM initiated Event Investigation EIR-2023-068 "AOP-015 Entry for A-105"

**18. Compensatory Actions Taken:**

None.

**19. Remedial Actions Taken:**

None.

**20. Key Elements of the Investigation: (Key investigation points)**

To summarize the conclusions of the Industrial Hygiene Event Investigation Report (IHIR), IHIR-00082 "TF-AOP-015 AT A-105," the Ventis Pro PAM alarm was likely not indicative of an employee chemical exposure event or changing Tank Farm conditions related to Tank Farm vapors. Direct Reading Instrumentation monitoring performed during TF-AOP-015 response actions did not indicate further action was necessary with regard to a worker safety and health occupational exposure standpoint. As a result, the area was released from restricted access.

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(1) PAM device 220337-157 passed calibration on 09/05/2023. After analysis of the data log by WRPS IH, it is believed the alarm was due to an issue with the instrument and not resultant of response level amounts of ammonia (greater than or equal to 6ppm). This device was pulled from service and will be sent to the manufacturer for diagnostic testing.

(2) Five additional workers were within the immediate area of the individual when the Ventis Pro personal ammonia monitor alarmed. The other workers' Ventis Pro personal ammonia monitors did not alarm or indicated elevated ammonia concentrations. If the Ventis Pro personal ammonia alarm was resultant of changing Tank Farm conditions related to Tank Farm vapors, it is expected the Ventis Pro personal ammonia monitors of the additional workers within the immediate area would have also alarmed. Therefore, providing indication the cause of the personal ammonia alarm was unlikely to be resultant of changing Tank Farms conditions or exhauster emissions.

(3) Evaluation of the weather details determined the cause of the Ventis Pro personal ammonia monitor "Response Level" alarm was unlikely to be resultant of Tank Farms exhauster emissions based on the wind direction, wind speed, mixing height, and stability class at the reported time of event (Refer to Attachment A) for DFAS PEZ Model).

(4) Because nitric acid was utilized in nearly all production processes that generated tank waste, and the most common by-product of those processes was reduction of nitrate ion to ammonia during the dissolution (oxidation) of irradiated fuel, ammonia is the most prevalent chemical of potential concern (COPC) found in all tanks. Therefore, ammonia is utilized as a sentinel indicator for Tank Waste Chemical Vapor COPCs, thus direct reading instruments (DRIs) equipped with an ammonia sensor are utilized at a minimum when monitoring for tank waste chemical vapors/COPCs. Field response DRI monitoring indicated less than detectable ammonia concentrations (< 1 ppm), which is below background levels. Providing additional indication the cause of the personal ammonia alarm was unlikely to be resultant of Tank Farms exhauster emissions.

(5) Memo WRPS-1904672.1, "TANK FARM EXHAUST STACK CONCENTRATION ALARM/ACTION LEVELS FOR AMMONIA," establishes ammonia concentration stack alarm/action set points for tank farm exhausters based on the predicated ammonia concentration at unspecified ground receptors utilizing the Quantitative Risk Assessment (QRA) model. The exhauster high level alarm was established at concentrations where the predicted ground receptor ammonia concentration of 2.5 ppm (or 10% of the established Occupational Exposure Limit for ammonia) could be observed.

The exhauster high level alarm conservatively established for A Complex (excluding A farm) is 460 ppm. According to the Vapor Monitoring and Detection System (VMDS), the ammonia concentration observed at the time of event occurrence was 0.0 ppm at the POR-126 exhauster, 71.046 ppm at the POR-127 exhauster, 23.769 ppm at the 702-AZ exhauster, 14.91 ppm at the AW exhauster, and 32.174 ppm at the AN exhauster. The AP exhauster is not currently connected to VMDS; therefore, readings are acquired once per calendar day in accordance with TF-OPS-IHT-037 when ammonia stack monitoring via VMDS is unavailable. The highest ammonia concentrations observed between 09/04/2023 and 09/05/2023 was 12.0 ppm at the AP Exhauster. Conservatively utilizing the higher ammonia concentration observed in the POR-127 exhauster, a predicted ground receptor ammonia concentration of 2.654 ppm (or 10.62% of the established Occupational Exposure Limit for ammonia) would be expected if AN, AY/AZ, AX, AW, or AP farm exhauster emissions were present.

The exhauster high level alarm conservatively established for A farm is 160 ppm. According to VMDS, the ammonia concentration observed at the time of event occurrence

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was 0.000 ppm at the POR-518 exhauster and 0.000 ppm at the POR-519 exhauster. Therefore, a predicted ground receptor ammonia concentration of 0.000 ppm) would be expected if A tank farm exhauster emissions were present.

Therefore, providing further indication the cause of the personal ammonia alarm was unlikely to be resultant of Tank Farms exhauster emissions.

(6) PI Vision was utilized to verify 241-A Farm maintained negative tank pressures at the time of event occurrence, with pressures ranging from -0.35 inches water column (241-A-106) to -0.31 inches water column (241-A-101). Therefore, providing further indication the cause of the personal ammonia alarm was unlikely to be resultant of changing Tank Farm conditions.

**21. Positive Aspects Identified:**

At the time of the PAM alarm the work crew stopped work, made notifications, and exited the work area.

**22. Key Take Aways / Learning Opportunities:**

None. Per TFC-OPS-OPER-C-28, "Operating Experience/Lessons Learned," this event does not meet the criteria requiring generation of a Lessons learned.

**23. Event Investigation:**

- An Event Investigation will be completed per [TFC-OPS-OPER-C-14](#).
- This event will be managed by another process, i.e., Operability Evaluation, Engineering Technical Evaluation, etc.
- This event does not require continuation of the Event Investigation process.

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**Responsible Manager Approval:**

\_\_\_\_\_  
*Name (First, Middle Initial, Last)*

\_\_\_\_\_  
*Signature / Date*

**CAS Manager Approval:**

\_\_\_\_\_  
*Name (First, Middle Initial, Last)*

\_\_\_\_\_  
*Signature / Date*



Figure 1: 200-East Area (with 702AZ, AX Farm, and A Farm projected plume models) at 1259 on 9/5/2023 from Data Fusion and Advisory System (DFAS) application, powered by SmartSite™. **NOTE:** A Farm Exhausters are not connected to the DFAS; however, an approximate exhauster plume was added based on other modeled plumes.

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**INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT**

<b>Event Title:</b>  <p style="text-align: center;">TF-AOP-015 Event at A Farm</p>	<b>PER Number:</b>  <p style="text-align: center;">N/A</p>	
		<b>IHIR Number:</b>  <p style="text-align: center;">IHIR-00082</p>

<b>Date:</b> 9/5/2023	<b>Time:</b> 1259	<b>Location:</b> 241-A Farm North of A-105
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**Event Summary and Timeline:**

**Event Summary:**  
A Ventis Pro V personal ammonia monitor (PAM) alarmed at seven parts per million (ppm) inside 241-A-Farm, North of A-105. At the time of the PAM alarm, a total of 12 workers were present and were performing excavation work activities in support of construction. The individual whose PAM alarmed was standing near waterlines next to four workers, whose PAMs did not have detectable ammonia (NH3) readings. At 1313, the Central Shift Manager (CSM) restricted access to the area around A-105.

**Field Response Timeline:**  
1259 Approximate Time of Event - PAM alarm.  
1301 Field Work Supervisor (FWS) contacts CSM.

- No odors detected
- No symptoms reported
- Individual declined medical
- CSM requested Odor/Vapor Response Cards (OVRC) and PAM from FWS

1301 Retrieval Closure (R/C) Industrial Hygiene Technician (IHT) contacts R/C Industrial Hygienist (IH).  
1309 R/C IH contacts FWS.  
1313 SOEN "Entered TF-AOP-015 Response to Personal Ammonia Monitor Alarm for ventis pro alarm near A-105. Access to the area around A-105 is restricted. CSM"  
1314 R/C IH contacts CSM.  
1315 Production Operations East (POE) IHTs arrive at Central Shift Office (CSO).  
1316 POE IH-1 contacts POE Shift IHT Supervisor.  
1317 CSM contacts Department of Energy (DOE) Facility Representative.  
1319 Review of Data Fusion Advisory System (DFAS), powered Smart Site™, for weather details at the time of the PAM alarm:

- Wind Speed: 5.6 miles per hour (mph)
- Wind Direction: 75° East-North-East (ENE)
- Mixing Height: 140 feet above grade
- Stability Class: D (neutral conditions)

1321 POE Shift IHT Supervisor and POE Safety and Health manager arrive at CSO.  
1333 FWS, PAM, and OVRCS arrive at CSO.  
1337 POE IH-1 briefs POE Shift IHT.

- Monitor per IHSP-PROG-MULTI-TF-AOP-15 "Response to Ammonia Monitor Alarm"
- Map of area where PAM alarmed
- Respiratory Protection Form "TF-AOP-015" Task 5 (Voluntary Use)
- If not voluntarily used, then "MDRPF-PLN-173" Task 1

1339 CSM briefs Radiological Work Permit (RWP) and any access restrictions.  
1342 POE Shift IHTs depart CSO.  
1341 R/C IHTs arrive at CSO.  
1343 R/C IH-1 departs CSO to support POE Shift IHTs with field response.  
1358 POE Shift IHT-1 and R/C IH-1 entered A Farm to perform field response.  
1402 R/C IH-1 notifies CSM that field response is complete and ammonia readings were less than detectable (<1ppm).  
1418 POE Shift IHT notifies CSM that direct readings instrument (DRI) passed Post-Use-Function-Test.  
1424 SOEN: "Response actions for the TF-AOP-015 event have been completed and the results are at or below background levels. Exiting TF-AOP-015. Normal access to A-105 is restored. CSM".

**Sampling/Monitoring Results:**

**Field Response Area Readings:**

- Ammonia: Less than detectable (< 1ppm)

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**INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT(Continued)**

**Sampling/Monitoring Results:**

The responding IH and IHT entered A Farm to perform DRI monitoring with the MultiRAE. Inspection and monitoring was performed around the area where the PAM alarmed for potential sources of ammonia and/or tank vapors. DRI monitoring and observations made by the IH and IHT demonstrated no ongoing conditions, which could result in PAM alarm.

Ventis Pro V 005297 (09/05/2023 Event Initiating PAM - Alarm History inside A Farm):

- 1254: 2ppm NH3
- 1255-1257: 3ppm NH3
- 1258: 4ppm NH3
- 1259: 6ppm NH3
- 1300: 3ppm NH3
- 1301: 3ppm NH3
- 1302-1304: 0ppm NH3

Review of the data-log reported a peak reading of 6ppm NH3. PAM data is recorded in 10-second increments. All readings inside A Farm before 1259 and after 1302 were below detectable limits.

**SWIHD References:**

Field Response Site Wide Industrial Hygiene Database Direct Reading Instrumentation Survey:

- #23-06085 "TF-AOP-015 Response at 241-A-105"

**Additional Information:**

At the time of the PAM alarm, the worker whose PAM alarmed was wearing respiratory protection equipment in accordance with the Management Directed Respiratory Protection Form, "MDRPF-PLN-173" Task 1: Full Face Air Purifying Respirator (FF-APR) with Gas/Vapor cartridges (MSA GME Chemical Vapor).

Exhauster stacks in A Farm have enhanced monitoring, Vapor Monitoring and Detection System (VMDS) that can be used to detect elevated readings and provide further warnings of unexpected conditions. VMDS for both A Farm exhausters POR518 and POR519 had peak readings that were less than detectable (<1ppm) for ammonia. Additionally, negative tank pressure was maintained at A-105 and was -0.34 inches water column (in WC) and -0.33 in WC at POR518 and POR519, respectively.

Exhauster stack OEL concentrations to reach ground level were calculated from Computation Fluid Dynamics (CFD) modeling and is reported in 62043-000-SUB-033-001-02, "Quantitative Risk Analysis (QRA) Coverage Mapping, 241-AX Tank Farm" and 62043-000-SUB-055-002, "QRA 241-A Tank Farm Quantitative Risk Analysis. Table 3.3.2, "Theoretical Minimum Exhauster Stack Concentrations of COPCs Required for PAC-1 Concentrations at Ground Level" states that in order to reach an action level of 12 ppm (50% of the OEL) at ground level the exhauster stack concentration for ammonia would theoretically need to be 2,300 ppm in AX Farm. Table 3, "Minimum Exhauster Stack Concentrations of COPCs Required to Reach Concentrations of Concern in Breathing Zones" states that to reach an action level at ground level in A Farm the exhauster stack concentration for ammonia would need to be 816ppm. If such conditions do occur, they are rare and/or of short duration and will vary with different meteorological conditions.

Additionally, a more conservative approach was established for High Alarm and High High Alarm set points for the exhausters per the Interoffice Memorandum WRPS-1904672.1. To reach predicted ground receptor ammonia concentrations of 2.5ppm and 5ppm, the following set alarms at the exhaust stacks would need to be 160ppm (High Alarm) and 320ppm (High High Alarm) in A Farm, respectively. The set alarms for AX Farm have the following, a High Alarm at 460 ppm and a High High Alarm at 920 ppm.

Furthermore, the review of VMDS data concludes that there was very low potential for ground level exposure from A-Farm exhausters.

Provided is IHIR-00082 Attachment A: SmartSite™ Summary, VMDS Summary, and PAM Datalog

**Recommendations/Conclusions:**

The exact cause of the PAM alarm is unknown. All other PAMs in the surrounding area were below the low-level alarm of 6ppm. After entering AOP-015, DRI monitoring and observations made by the IH and IHT during the event response demonstrated conditions that may have caused the alarm were no longer present, allowing the exit of AOP-015. Furthermore, a thorough review was performed of the event

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**INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT**(Continued)

**Recommendations/Conclusions:**

and of environmental conditions related to worker location, wind direction, available monitoring data, and the event initiation PAM data-log. While the cause of the PAM alarm is unknown and the thorough review does not indicate the cause was due to Tank Farm vapors, the investigation was not able to determine the source of the PAM alarm.

It is recommended that the Event Investigator and the Industrial Hygienist review the results from the investigation report with the work crew.

**Other:**

N/A

**Industrial Hygienist:**

\_\_\_\_\_

*Print First and Last Name*

\_\_\_\_\_ Digitally signed by \_\_\_\_\_

Date: 2023.09.11 15:29:42 -07'00'

*Signature / Date*

**Industrial Hygiene Level 2 Manager:**

\_\_\_\_\_

*Print First and Last Name*

\_\_\_\_\_

Digitally signed by \_\_\_\_\_  
Date: 2023.09.12 04:51:47 -07'00'

*Signature / Date*



Figure 1: 200-East Area (with 702AZ, AX Farm, and A Farm projected plume models) at 1259 on 9/5/2023 from Data Fusion and Advisory System (DFAS) application, powered by SmartSite™. **NOTE:** A Farm Exhausters are not connected to the DFAS: however, an approximate exhauster plume was added based on other modeled plumes.

IHIR-00082 Attachment A: SmartSite™ Summary, VMDS Summary, and PAM Datalog

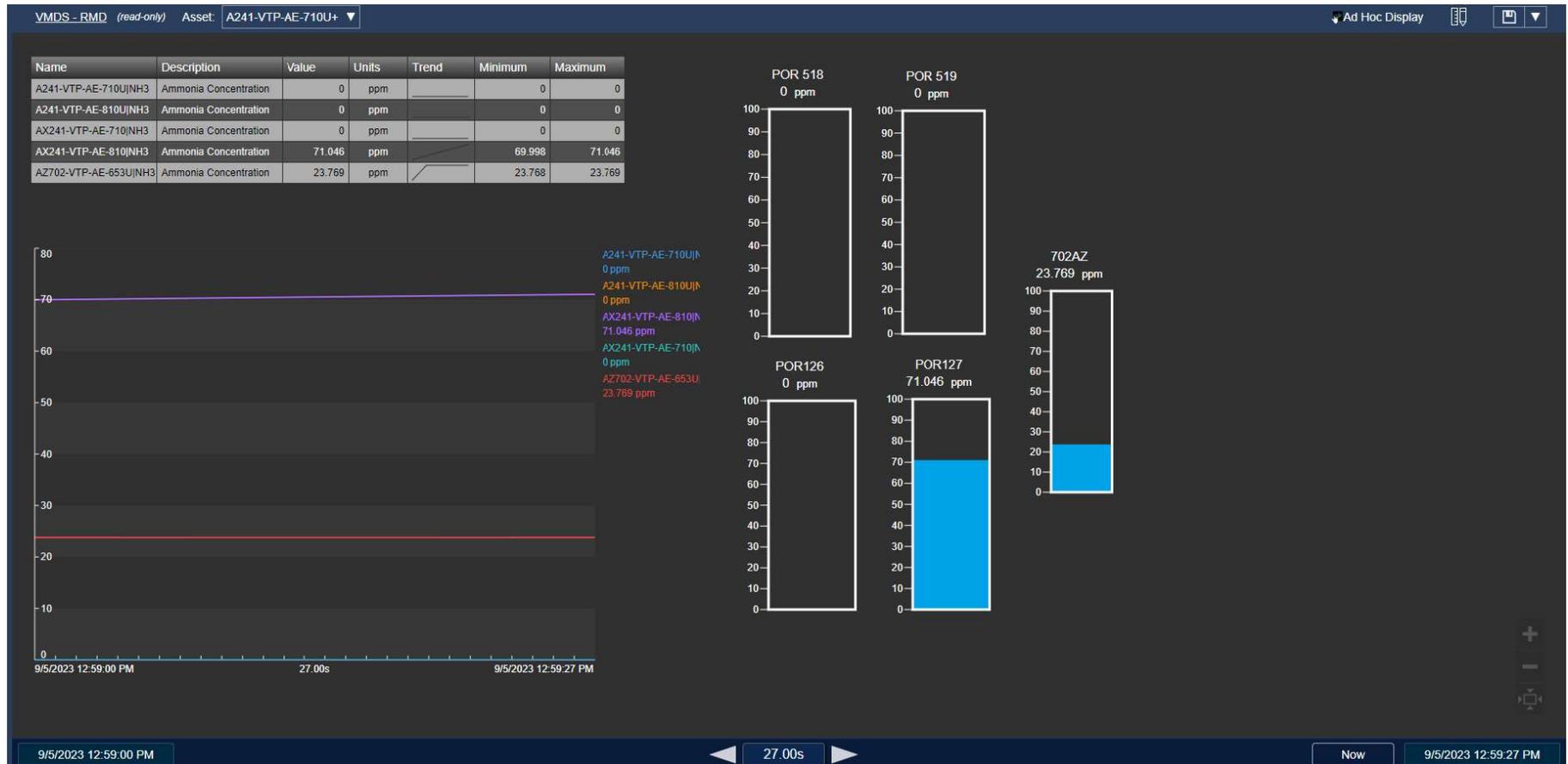


Figure 2: OSisoft Pi Vision VMDS Ammonia Concentrations for 1259 on 9/5/2023.

IHIR-00082 Attachment A: SmartSite™ Summary, VMDS Summary, and PAM Datalog

<b>A-Farm</b>	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:54:13 PM	0	21	0.03	0
	9/5/2023 12:54:23 PM	0	21	0.03	0
	9/5/2023 12:54:33 PM	0	21	0.03	0
	9/5/2023 12:54:43 PM	0	21	0.03	0
	9/5/2023 12:54:53 PM	2	21	0.03	0.02
	9/5/2023 12:55:03 PM	3	21	0.03	0.06
	9/5/2023 12:55:13 PM	3	21	0.03	0.09
	9/5/2023 12:55:23 PM	2	21	0.03	0.11
	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:55:33 PM	3	22	0.04	0.03
	9/5/2023 12:55:43 PM	3	22	0.04	0.07
<b>Non Farm</b>	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:55:57 PM	2	22	0.04	0.02
	9/5/2023 12:56:07 PM	3	22	0.04	0.06
	9/5/2023 12:56:17 PM	2	22	0.04	0.08
	9/5/2023 12:56:27 PM	2	22	0.04	0.1
	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:56:36 PM	3	22	0.04	0.03
	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:56:44 PM	0	22	0.04	0
	9/5/2023 12:56:54 PM	3	23	0.04	0.03
	9/5/2023 12:57:04 PM	2	23	0.04	0.06
	9/5/2023 12:57:14 PM	2	23	0.04	0.08
	9/5/2023 12:57:24 PM	2	23	0.04	0.1
	9/5/2023 12:57:34 PM	3	23	0.04	0.13
	9/5/2023 12:57:44 PM	2	23	0.05	0.16
	9/5/2023 12:57:54 PM	2	23	0.05	0.18
	9/5/2023 12:58:04 PM	2	23	0.05	0.2
	9/5/2023 12:58:14 PM	3	24	0.05	0.23
	9/5/2023 12:58:24 PM	4	24	0.05	0.28
<b>A-Farm</b>	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:58:36 PM	4	24	0.05	0.04
	9/5/2023 12:58:46 PM	4	24	0.05	0.09
	9/5/2023 12:58:56 PM	4	24	0.05	0.13
	9/5/2023 12:59:06 PM	5	25	0.06	0.19
	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:59:17 PM	5	25	0.06	0.06
	9/5/2023 12:59:27 PM	6	25	0.06	0.12
<b>- A-Farm</b>	<b>Time</b>	<b>Reading</b>	<b>Temp ( C )</b>	<b>TWA</b>	<b>STEL</b>
	9/5/2023 12:59:33 PM	3	25	0.06	0.03
	9/5/2023 12:59:43 PM	3	25	0.06	0.07
	9/5/2023 12:59:53 PM	4	26	0.06	0.11
	9/5/2023 1:00:03 PM	3	26	0.06	0.14
	9/5/2023 1:00:13 PM	3	26	0.06	0.18
	9/5/2023 1:00:23 PM	3	26	0.07	0.21
	9/5/2023 1:00:33 PM	3	26	0.07	0.24
	9/5/2023 1:00:43 PM	3	26	0.07	0.28
	9/5/2023 1:00:53 PM	0	26	0.07	0.28
	9/5/2023 1:01:03 PM	3	26	0.07	0.31
	9/5/2023 1:01:13 PM	2	27	0.07	0.33
	9/5/2023 1:01:23 PM	0	27	0.07	0.33
	9/5/2023 1:01:33 PM	3	27	0.07	0.37
	9/5/2023 1:01:43 PM	2	27	0.07	0.39
	9/5/2023 1:01:53 PM	0	27	0.07	0.39
	9/5/2023 1:02:03 PM	0	27	0.07	0.39

Figure 3: Ventis Pro5 #2203377-157 Alarm History

ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9/5/23 ~1305
- Check Applicable:
  - Odor
  - Ammonia Alarm (6 ppm)
  - Ammonia Alarm (12 ppm)
  - Alarm (other - describe):
- Your name and the work you were performing:  
[REDACTED] Supervising Excavation
- Other Work Underway? Describe:  
N/A
- Location of event (mark area on map and wind direction):  
241-A FARM, NORTH OF A-105 TANK
- Name(s) of others in or near the affected area:  
[REDACTED]
- Was industrial hygiene present, who?  
NO
- Describe the odor:
  - Sweet
  - Sour
  - Smoky
  - Septic/Sewer
  - Musty
  - Rotten
  - Metallic
  - Onion
  - Earthy
  - Ammonia
  - Citrus
  - Solvent
  - Other (describe): NONE
- Is source known/likely? Describe:
- Your symptoms?  None
  - Headache
  - Dizziness
  - Nausea
  - Cough
  - Fatigue
  - Weakness
  - Sore Throat
  - Difficulty Breathing
  - Eye Irritation
  - Rash
  - Itch
  - Tingling
  - Numbness
  - Taste
  - Other (describe):

2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

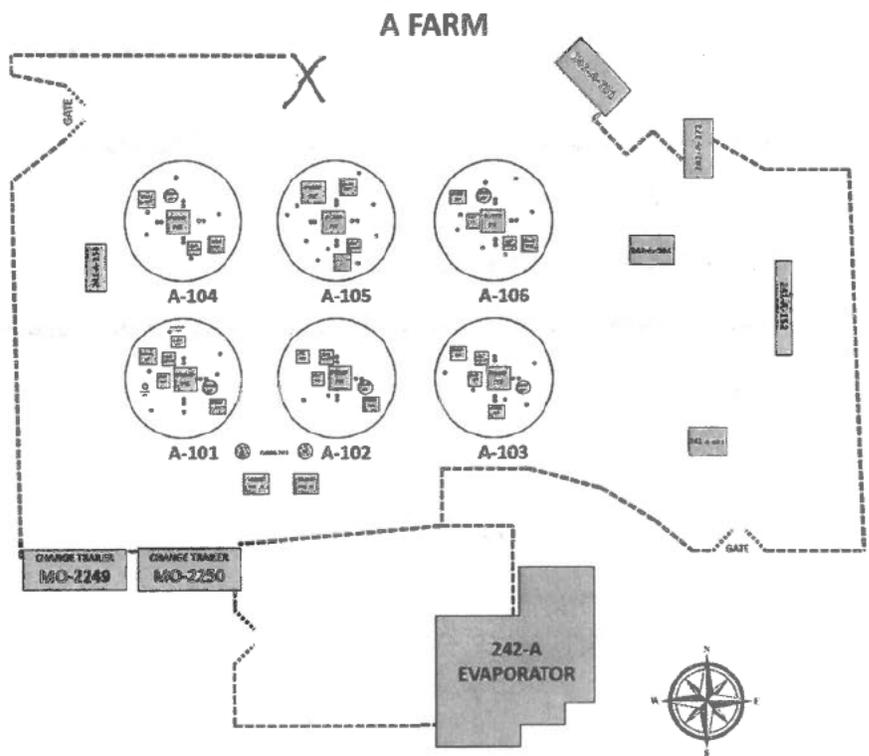
\* Alarm

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9-5-2023 1300
- Check Applicable:  
 Odor  Ammonia Alarm (6 ppm)  Ammonia Alarm (12 ppm)  Alarm (other - describe): \_\_\_\_\_
- Your name and the work you were performing: [REDACTED] FWS excavating
- Other Work Underway? Describe: Excavation
- Location of event (mark area on map and wind direction): North of A-105
- Name(s) of others in or near the affected area: N/A
- Was Industrial Hygiene present, who? NO
- Describe the odor:  
 Sweet  Sour  Smoky  Septic/Sewer  Musty  Rotten  
 Metallic  Onion  Earthy  Ammonia  Citrus  Solvent  
 Other (describe): NONE
- Is source known/likely? Describe: NO
- Your symptoms?  None  
 Headache  Dizziness  Nausea  Cough  Fatigue  
 Weakness  Sore Throat  Difficulty Breathing  Eye Irritation  Rash  
 Itch  Tingling  Numbness  Taste  
 Other (describe): \_\_\_\_\_

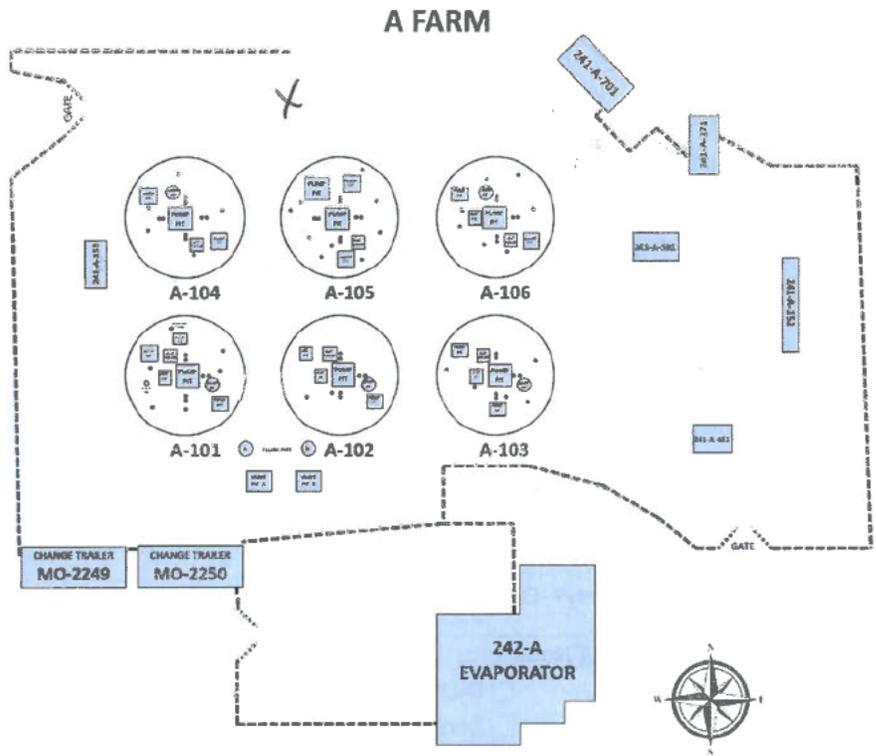
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 09/05/2023 13.05
- Check Applicable:  
 Odor  Ammonia Alarm (6 ppm)  Ammonia Alarm (12 ppm)  Alarm (other - describe): \_\_\_\_\_
- Your name and the work you were performing:  
[REDACTED] standing by the ditch.
- Other Work Underway? Describe:  
EXCAVATION
- Location of event (mark area on map and wind direction):  
WEST OF A-FARM EXHAUSTER.
- Name(s) of others in or near the affected area:  
[REDACTED]
- Was industrial Hygiene present, who?  
NO.
- Describe the odor:  
 Sweet  Sour  Smoky  Septic/Sewer  Musty  Rotten  
 Metallic  Onion  Earthy  Ammonia  Citrus  Solvent  
 Other (describe): None
- Is source known/likely? Describe:  
NO.
- Your symptoms?  None  
 Headache  Dizziness  Nausea  Cough  Fatigue  
 Weakness  Sore Throat  Difficulty Breathing  Eye Irritation  Rash  
 Itch  Tingling  Numbness  Taste  
 Other (describe): \_\_\_\_\_

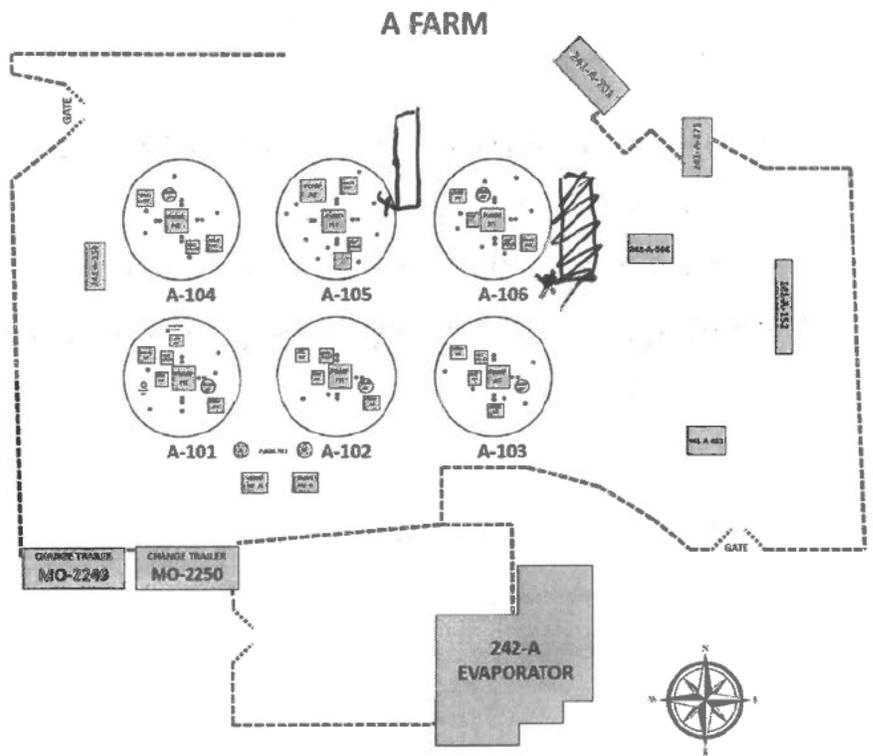
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9-5-2023 1300
- Check Applicable:  
 Odor  Ammonia Alarm (6 ppm)  Ammonia Alarm (12 ppm)  Alarm (other - describe): \_\_\_\_\_
- Your name and the work you were performing: EXCAVATION
- Other Work Underway? Describe: N/A
- Location of event (mark area on map and wind direction): A - 105
- Name(s) of others in or near the affected area: \_\_\_\_\_
- Was Industrial Hygiene present, who? NO
- Describe the odor:  
 Sweet  Sour  Smoky  Septic/Sewer  Musty  Rotten  
 Metallic  Onion  Earthy  Ammonia  Citrus  Solvent  
 Other (describe): NONE
- Is source known/likely? Describe: \_\_\_\_\_
- Your symptoms?  None  
 Headache  Dizziness  Nausea  Cough  Fatigue  
 Weakness  Sore Throat  Difficulty Breathing  Eye Irritation  Rash  
 Itch  Tingling  Numbness  Taste  
 Other (describe): \_\_\_\_\_

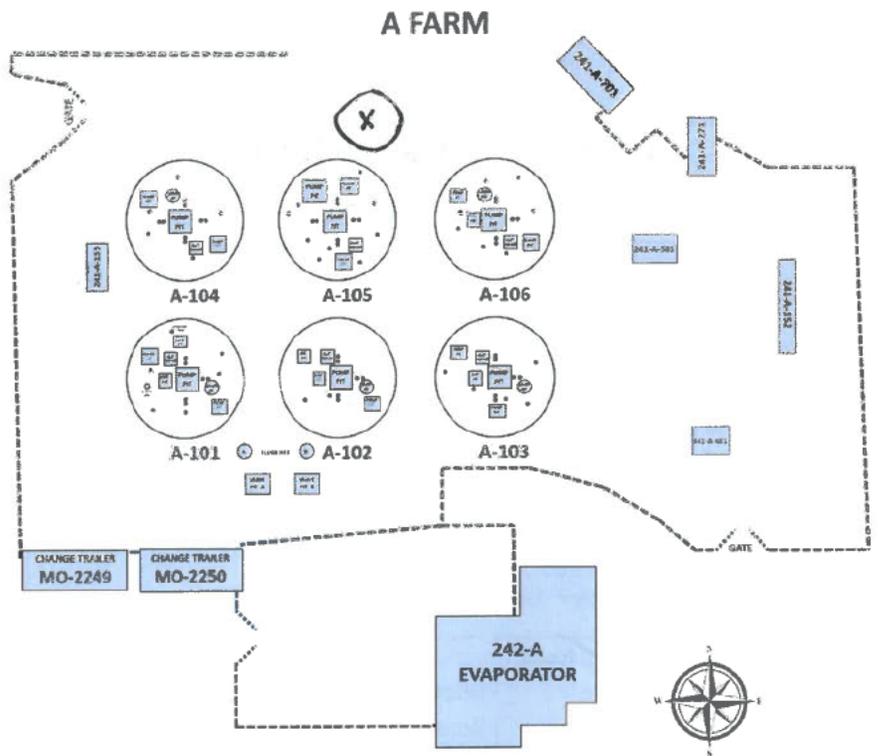
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9/5/23 1300
- Check Applicable:
  - Odor
  - Ammonia Alarm (6 ppm)
  - Ammonia Alarm (12 ppm)
  - Alarm (other - describe):
- Your name and the work you were performing: [redacted] / Radcon Support
- Other Work Underway? Describe: excavation
- Location of event (mark area on map and wind direction): near A-105
- Name(s) of others in or near the affected area:
- Was Industrial Hygiene present, who? NO
- Describe the odor:
  - Sweet
  - Sour
  - Smoky
  - Septic/Sewer
  - Musty
  - Rotten
  - Metallic
  - Onion
  - Earthy
  - Ammonia
  - Citrus
  - Solvent
  - Other (describe): N/A
- Is source known/likely? Describe: NO
- Your symptoms?  None
  - Headache
  - Dizziness
  - Nausea
  - Cough
  - Fatigue
  - Weakness
  - Sore Throat
  - Difficulty Breathing
  - Eye Irritation
  - Rash
  - Itch
  - Tingling
  - Numbness
  - Taste
  - Other (describe):

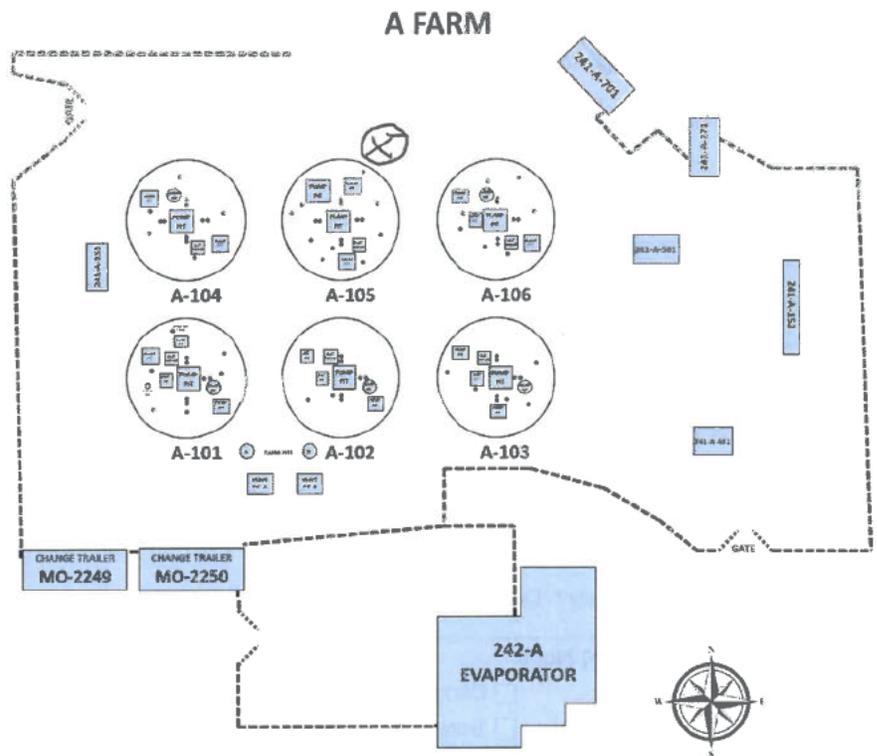
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## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9/5/23 1300
- Check Applicable:  
 Odor  Ammonia Alarm (6 ppm)  Ammonia Alarm (12 ppm)  Alarm (other - describe): \_\_\_\_\_
- Your name and the work you were performing: \_\_\_\_\_  
excavation
- Other Work Underway? Describe: \_\_\_\_\_  
N/A
- Location of event (mark area on map and wind direction): \_\_\_\_\_  
A-105
- Name(s) of others in or near the affected area: \_\_\_\_\_
- Was Industrial Hygiene present, who? \_\_\_\_\_  
No
- Describe the odor:  
 Sweet  Sour  Smoky  Septic/Sewer  Musty  Rotten  
 Metallic  Onion  Earthy  Ammonia  Citrus  Solvent  
 Other (describe): No odor
- Is source known/likely? Describe: \_\_\_\_\_  
No
- Your symptoms?  None  
 Headache  Dizziness  Nausea  Cough  Fatigue  
 Weakness  Sore Throat  Difficulty Breathing  Eye Irritation  Rash  
 Itch  Tingling  Numbness  Taste  
 Other (describe): \_\_\_\_\_

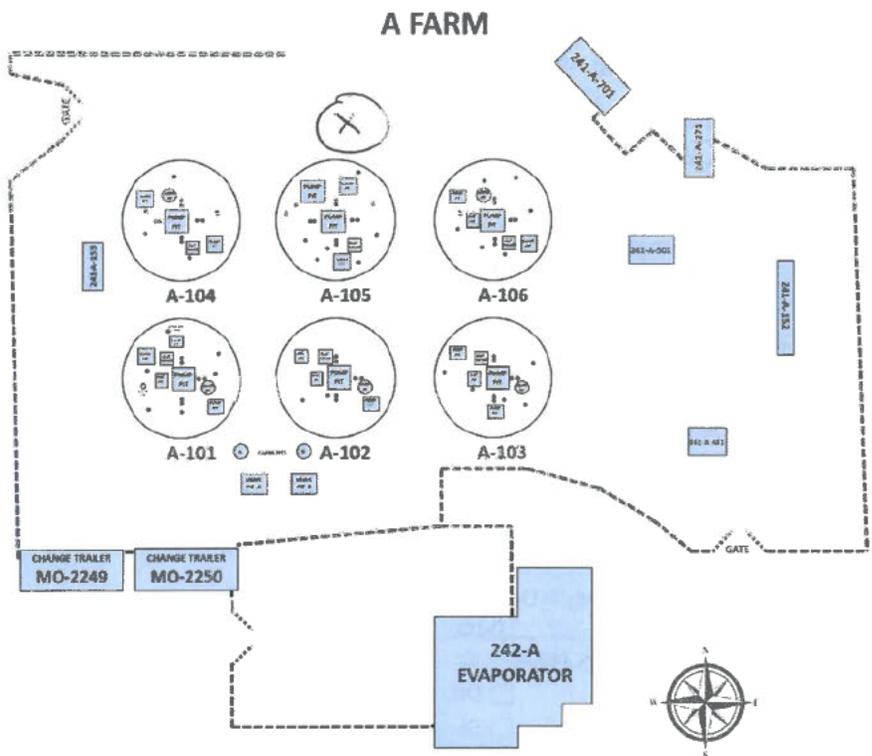
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9/5/23 13:00
- Check Applicable:  
 Odor     Ammonia Alarm (6 ppm)     Ammonia Alarm (12 ppm)     Alarm (other - describe): \_\_\_\_\_
- Your name and the work you were performing:  
[Redacted] Radon Support
- Other Work Underway? Describe:  
Excavation
- Location of event (mark area on map and wind direction):  
A105
- Name(s) of others in or near the affected area: \_\_\_\_\_
- Was Industrial Hygiene present, who?  
N/A
- Describe the odor:  
 Sweet     Sour     Smoky     Septic/Sewer     Musty     Rotten  
 Metallic     Onion     Earthy     Ammonia     Citrus     Solvent  
 Other (describe): N/A
- Is source known/likely? Describe:  
N/A
- Your symptoms?  None  
 Headache     Dizziness     Nausea     Cough     Fatigue  
 Weakness     Sore Throat     Difficulty Breathing     Eye Irritation     Rash  
 Itch     Tingling     Numbness     Taste  
 Other (describe): \_\_\_\_\_

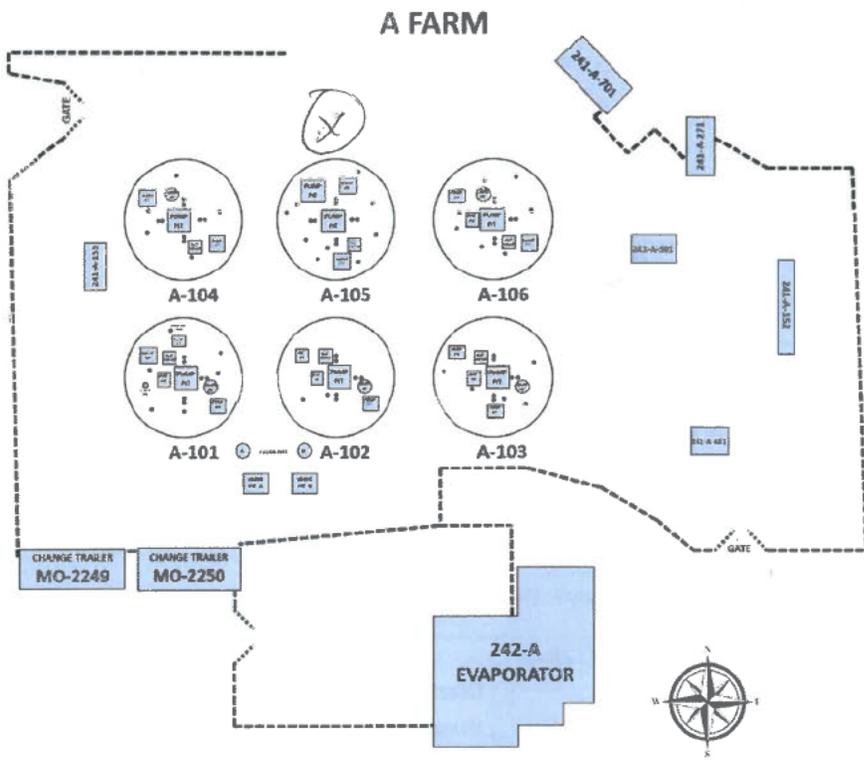
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9/5/23 1:05pm
- Check Applicable:
  - Odor
  - Ammonia Alarm (6 ppm)
  - Ammonia Alarm (12 ppm)
  - Alarm (other - describe):
- Your name and the work you were performing: [Redacted] - Excavation for crane crassing
- Other Work Underway? Describe: Northwest of A-105
- Location of event (mark area on map and wind direction): Northwest of A-105
- Name(s) of others in or near the affected area: [Redacted]
- Was Industrial Hygiene present, who? Yes - [Redacted]
- Describe the odor:
  - Sweet
  - Sour
  - Smoky
  - Septic/Sewer
  - Musty
  - Rotten
  - Metallic
  - Onion
  - Earthy
  - Ammonia
  - Citrus
  - Solvent
  - Other (describe): I didn't smell any odor
- Is source known/likely? Describe: No
- Your symptoms?  None
  - Headache
  - Dizziness
  - Nausea
  - Cough
  - Fatigue
  - Weakness
  - Sore Throat
  - Difficulty Breathing
  - Eye Irritation
  - Rash
  - Itch
  - Tingling
  - Numbness
  - Taste
  - Other (describe):

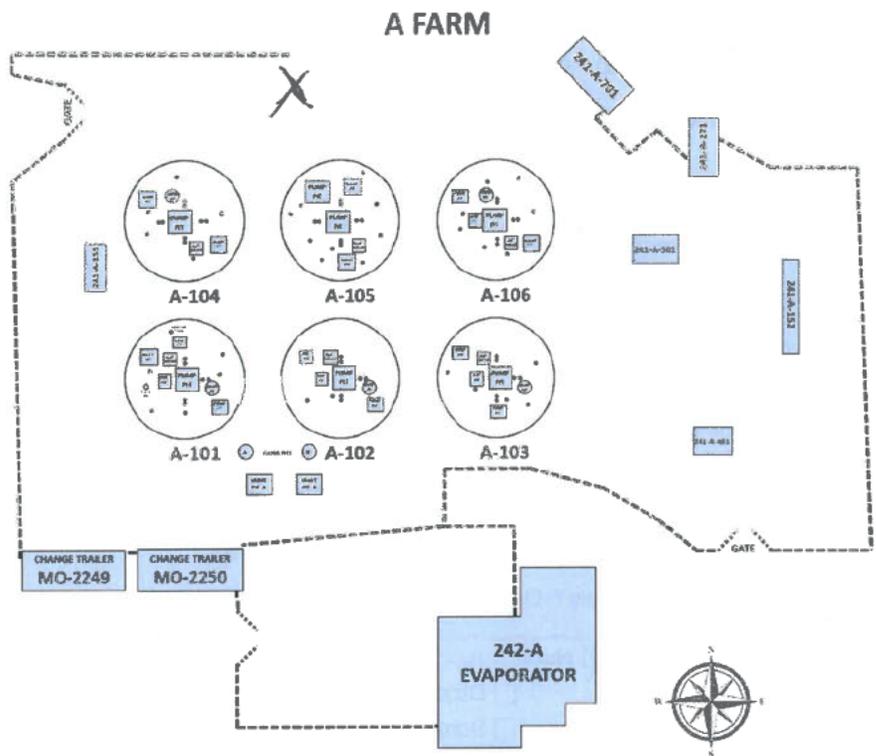
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



**ODOR/VAPOR RESPONSE CARD - 241 A FARM**

**1. Complete below information and map (Page 1).**

- Date and time of event: 9-5-23 1305
- Check Applicable:  
 Odor     Ammonia Alarm (6 ppm)     Ammonia Alarm (12 ppm)     Alarm (other - describe): 7 ppm
- Your name and the work you were performing:  
[Redacted] excavation
- Other Work Underway? Describe:  
\_\_\_\_\_
- Location of event (mark area on map and wind direction):  
Between 104 - 105 pit
- Name(s) of others in or near the affected area:  
[Redacted]
- Was Industrial Hygiene present, who?  
Yes
- Describe the odor:  
 Sweet     Sour     Smoky     Septic/Sewer     Musty     Rotten  
 Metallic     Onion     Earthy     Ammonia     Citrus     Solvent  
 Other (describe): NONE
- Is source known/likely? Describe:  
None
- Your symptoms?  None  
 Headache     Dizziness     Nausea     Cough     Fatigue  
 Weakness     Sore Throat     Difficulty Breathing     Eye Irritation     Rash  
 Itch     Tingling     Numbness     Taste  
 Other (describe): \_\_\_\_\_

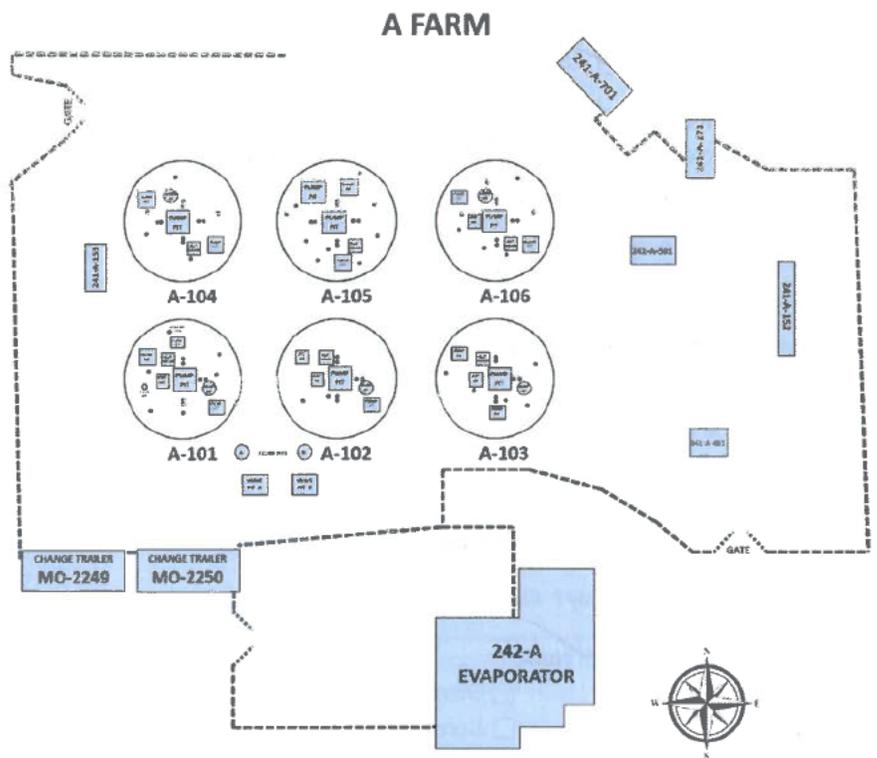
**2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.**

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

### Instructions:

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9/5/23 1:05 pm
- Check Applicable:  
 Odor     Ammonia Alarm (6 ppm)     Ammonia Alarm (12 ppm)     Alarm (other - describe): \_\_\_\_\_
- You  the work you were performing: excavation
- Other Work Underway? Describe: Between Area A104 - A105
- Location of event (mark area on map and wind direction): Between A104 A105
- Name(s) of others in or near the affected area: 
- Was Industrial Hygiene present? Yes
- Describe the odor:  
 Sweet     Sour     Smoky     Septic/Sewer     Musty     Rotten  
 Metallic     Onion     Earthy     Ammonia     Citrus     Solvent  
 Other (describe): no smell/odor
- Is source known/likely? Describe: \_\_\_\_\_
- Your symptoms?  None  
 Headache     Dizziness     Nausea     Cough     Fatigue  
 Weakness     Sore Throat     Difficulty Breathing     Eye Irritation     Rash  
 Itch     Tingling     Numbness     Taste  
 Other (describe): \_\_\_\_\_

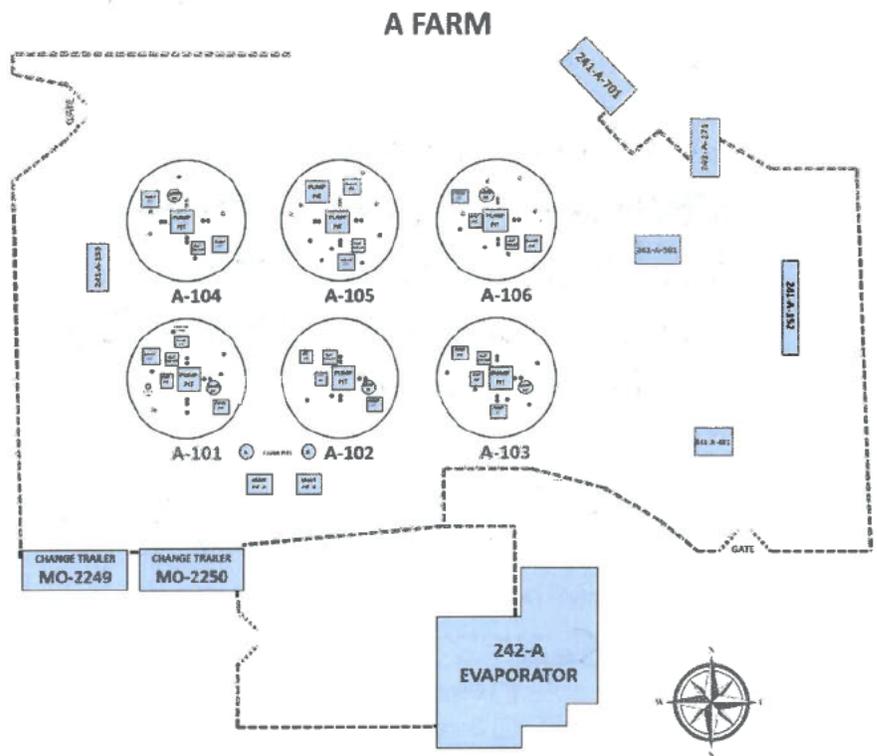
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

### Instructions:

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.



ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

Date and time of event: 1:05 pm 9/5/23

Check Applicable:

- Odor
- Ammonia Alarm (6 ppm)
- Ammonia Alarm (12 ppm)
- Alarm (other - describe):

Your name and the work you were performing: [redacted] excavation

Other work underway? Describe: Backfill

Location of event (mark area on map and wind direction): A-farm

Name(s) of others in or near the affected area: [redacted]

Was industrial hygiene present, who?

Describe the odor:

- Sweet
- Sour
- Smoky
- Septic/Sewer
- Musty
- Rotten
- Metallic
- Onion
- Earthy
- Ammonia
- Citrus
- Solvent

Other (describe): No smell/odor

Is source known/likely? Describe:

Your symptoms?  None

- Headache
- Dizziness
- Nausea
- Cough
- Fatigue
- Weakness
- Sore Throat
- Difficulty Breathing
- Eye Irritation
- Rash
- Itch
- Tingling
- Numbness
- Taste
- Other (describe):

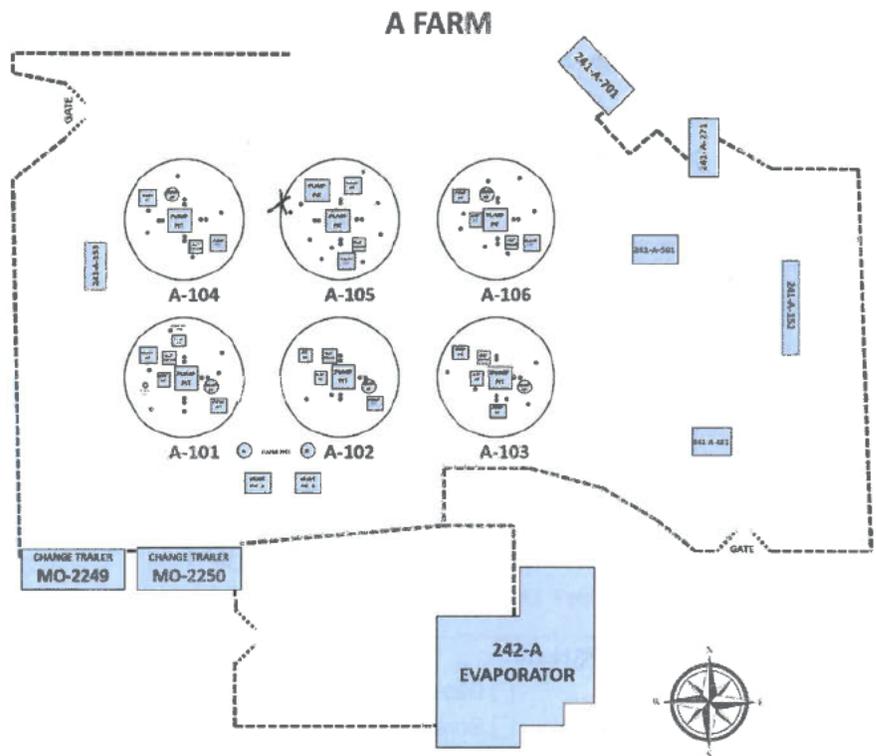
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

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ODOR/VAPOR RESPONSE CARD - 241 A FARM

1. Complete below information and map (Page 1).

- Date and time of event: 9/5/23 1:05pm
- Check Applicable:
  - Odor
  - Ammonia Alarm (6 ppm)
  - Ammonia Alarm (12 ppm)
  - Alarm (other - describe): \_\_\_\_\_
- You were working in: [redacted] excavation
- Other Work Underway? Describe: \_\_\_\_\_
- Location of event (mark area on map and wind direction): Between A104 A105
- Name(s) of the person(s) affected: [redacted]
- Was Industrial Hygiene present? Yes [redacted]
- Describe the odor:
  - Sweet
  - Sour
  - Smoky
  - Septic/Sewer
  - Musty
  - Rotten
  - Metallic
  - Onion
  - Earthy
  - Ammonia
  - Citrus
  - Solvent
  - Other (describe): NO Smell/odor
- Is source known/likely? Describe: \_\_\_\_\_
- Your symptoms?  None
  - Headache
  - Dizziness
  - Nausea
  - Cough
  - Fatigue
  - Weakness
  - Sore Throat
  - Difficulty Breathing
  - Eye Irritation
  - Rash
  - Itch
  - Tingling
  - Numbness
  - Taste
  - Other (describe): \_\_\_\_\_

2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

## ODOR/VAPOR RESPONSE CARD - 241 A FARM

**Instructions:**

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at [REDACTED]
3. Complete both pages of this form and include as many details as possible, including:
  - a. Approximate location, see map at right;
  - b. Wind direction, speed and description, such as stable or gusty wind;
  - c. Environmental conditions, such as hot, cold, windy, rainy;
  - d. Other work or contractors in the area;
  - e. Anything else you think is relevant.
4. Provide the completed card to your Supervisor\*, Industrial Hygiene\*, Union Safety Representative\* or the CSM.

\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.

