

Hanford Tank Waste Operations & Closure
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:** Maintenance Craft Support 2. **Report Date:** 05/21/2025
3. **Investigation Title:** C-67 Odor Response at 217SY Change Trailer Parking Lot
4. **Investigation Report Number:** EIR-2025-044
5. **Responsible Manager:** [REDACTED]
6. **Event Investigator:** [REDACTED]
7. **Area / Building / Location:** 200 West Area/217-SY Change Tent Parking Lot
8. **Date and Approximate Time of Event:** **Date:** 05/14/2025 **Time (military):** 1320 hours
9. **Associated Action Request (AR) Number:** ITDC-AR-2025-1869
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)

A work crew of three workers had just arrived at the 217-SY Change Tent parking lot to perform work activities associated with Work Order (WO) #1128247, *REPETITIVE - TROUBLESHOOT/REPAIR ARGOS FOR RWO FARMS/FACILITIES*, when they encountered the stronger than normal odor.

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

- H2C Instrument Specialist (IS)- 2
- H2C Radiological Control Technician (RCT) -1

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

On 05/14/2025, at approximately 1320 hours, 2 ISs and 1 RCT reported smelling stronger than normal "pungent," "strong," "polymer burning," "plastic," and "chemical" odors when arriving to the 217-SY Change Trailer Tent parking lot.

At 1344 hours, the Central Shift Manager (CSM) initiated response per TF-OPS-OPER-C-67, *Response to Stronger than Normal Odors*, for odors at the 217-SY Change Tent parking lot. Access was restricted for the 217-SY Change Tent parking lot. The three workers reported no symptoms, and all declined reporting to the onsite medical provider for precautionary medical evaluation.

A nearby crew was exiting S Farm after performing work associated with WO# 1198543, *241-S COB Removal* at the time of the odor event occurred. At 1353 hours, the Field Work Supervisor (FWS) reported to the CSM that an ACE service truck was pumping sewage upwind of the 217-SY Change Tent parking lot. The CSM advised the work crew not to leave the 217-SY Change Tent until an Industrial Hygiene Technician (IHT) could perform direct-reading instrument (DRI) monitoring of the parking lot.

At approximately 1517 hours, responding IHTs completed their DRI monitoring in the affected and adjacent areas per Industrial Hygiene Sample Plan (IHSP), *IHSP-POE-MULTI-TFCOPSOPERC67, Industrial Hygiene Odor Evaluation*. The results of the DRI monitoring indicate that all readings were below action levels.

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At 1530 hours response actions for IHSP-POE-MULTI-TFCOPSOPERC67 and TFC-OPS-OPER-C-67, *Response to Stronger than Normal Odors* were completed. Access was restored to the 217-SY Change Tent and parking lot.

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

- The odor event occurred in the 217-SY Change Tent parking lot located in the 200 West Area of the Hanford site.
- At the time odors were reported outside of 217-AW1 Change Tent the workers were wearing standard street clothes and in a work location that is not posted as a radiological controlled area. The personnel were not in an area requiring the use of respiratory protection or personal ammonia monitor (e.g., Ventispro or ToxiRAE).
- The Hanford Site Meteorological Station #19 in the 200 West Area and Data Fusion and Advisory System (DFAS) application, powered by SmartSite, were utilized for outdoor weather details at the time odors were reported. The Hanford Site Meteorological Station #19 and DFAS dashboard indicated the following weather conditions at 1330 hours on 05/14/2025:
 - Temperature: 70°F
 - Relative Humidity: 24%
 - Wind Speed: 13 mph
 - Wind Direction: from the west
 - Barometric Pressure: 29.21 inches of mercury and falling

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

There was no impact to the facility.

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

- The CSM restricted access to the 217-SY Change Tent Parking lot.
- The CSM initiated TFC-OPS-OPER-C-67, *Response to Stronger than Normal Odors*, response actions.
- Industrial Hygiene Technicians (IHTs) initiated TFC-OPS-OPER-C-67 response actions and monitoring per IHSP-POE-MULTI-TFCOPSOPERC67. for the 217-SY Change Tent and adjacent areas.
- The workers were offered precautionary medical evaluation, but all workers declined to be evaluated.
- The DOE Facility Representative was notified of the event.
- The CSM made required TFC-OPS-OPER-C-67 notifications.
- The CSM initiated Event Investigation EIR-2025-044, C-67 Odor Response at 217SY Change Trailer Parking Lot.

18. Compensatory Actions Taken:

None.

19. Remedial Actions Taken:

None.

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

Per TFC-PLN-120, Industrial Hygiene Investigative Response Plan, Industrial Hygiene (IH) documented the event investigation within Industrial Hygiene Event Investigation Report (IHIR) number IHIR-00117, TFC-OPS-OPER-C-67 Near 217-SY Change Tent Parking Lot. DRI monitoring performed during odor investigation and TFC-OPS-OPER-C-67 response actions did not indicate further actions were necessary in regard to worker safety and health occupational exposure limits. The following considerations support the IHIR-00117 conclusion.

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IHTs performed DRI monitoring at 217-SY Change Tent parking lot and adjacent area per IHSP-POE-MULTI-TFCOPSOPERC67. IHTs used a DRI to monitor for ammonia, Volatile Organic Chemicals (VOCs) and hydrogen sulfide. All readings were less than detectable. The instrumentation used for monitoring passed the post-use function check.

The DRI results along with the review of the atmospheric conditions outside of the area where individuals experienced odors around the reported time of the event indicate the cause of the odor is unlikely to be from Tank Farm emissions. Below are the DFAS and Vapor Monitoring and Detection System (VMDS) data (S and SX Tank Farms are passively ventilated and do not have VMDS data):

Review of DFAS at the approximate time of odor event on 05/14/2025 @ 1341:

- Stability Class: A
- Wind Speed: 13.9 mph
- Wind Direction: 264° (out of west)
- Mixing Height: 1500 feet above grade

VMDS exhauster ammonia readings at the approximate time of odor event on 05/14/2025 @ 1350:

- SY Exhauster: 7.6 ppm

Conclusion:

The investigation into the event, which included an analysis of environmental conditions such as worker location, wind direction, and available monitoring data at the time the odors were reported, suggests that it is unlikely the odors originated from Tank Farm vapors. Monitoring with DRIs and observations by the Industrial Hygienist indicated that the conditions causing the odors were no longer present. Consequently, the area where the odors were reported was reopened for access, and work resumed. However, the investigation was unable to identify the source of the reported odors

21. Positive Aspects Identified:

Personnel responded promptly to the event, implementing the applicable IHSP-POE-MULTI-TFCOPSOPERC67 and TFC-OPSOPER-C-67 response actions.

22. Key Take Aways / Learning Opportunities:

None.

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.

Responsible Manager Approval:

Name (First, Middle Initial, Last)

Signature / Date

CAS Manager Approval:

Name (First, Middle Initial, Last)

Signature / Date

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR)

Event Title: TFC-OPS-OPER-C-67 Near 217-SY Change Tent Parking Lot	IHIR Number: IHIR-00117
	IHEI Number: N/A

Date: 05/14/2025	Time: 1330	Location: 217-SY Change Tent Parking Lot
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Event Summary and Timeline:

Event Summary:
Two instrument technicians and one RCT arrived at 217-SY change tent parking lot and noticed a "pungent", "strong", "polymer burning", "plastic", "chemical" odor. They notified the shift manager and were directed to fill out odor vapor response cards at the shift office. There were no symptoms reported and all three declined medical surveillance. IH responded by monitoring the 217-SY parking lot and adjacent areas for ammonia, VOCs, and hydrogen sulfide with all readings were below the action limits and no observed elevated readings.

Timeline:

- 1337 Industrial Hygienist (IH) arrives at Central Shift Office (CSO)
- 1337 Central Shift Manager (CSM) gave west area day shift manager approval to exit 217-SY tent with Industrial Hygiene Technician (IHT) monitoring
- 1341 IH checks Data Fusion Advisory System (DFAS)
 - Stability Class: A (Extremely unstable conditions)
 - Wind Speed: 13.9 mph
 - Wind Direction: 264° (out of west)
 - Mixing Height: 1500 feet above grade
- 1346 IH reviewed the initial odor descriptors to determine initial monitoring strategy
- 1350 IH checks Vapor Monitoring Detection System at SY Farm (7.6 ppm ammonia)
- 1353 Employees reported seeing ACE truck pumping sewage up wind of work location
- 1353 IHT monitoring results were less than detectable for ammonia and VOCs during 217-SY escort/exit
- 1353 Affected workers (Two Instrument technicians and one RCT) arrive at CSO
- 1357 IH called MET Station
 - Temperature: 73 degrees Fahrenheit
 - Wind Direction: WSW
 - Wind Speed: 19 mph sustained/ 29 mph gusts
 - Pressure: 29.20 Falling slow
- 1402 The affected workers decline medical evaluation and report no symptoms
- 1415 IH reviewed the three Odor/Vapor Response Cards to determine monitoring strategy
- 1419 Two Retrieval and West Operations IH arrive at CSO and receive briefing
- 1434 IH briefs IHTs with the response plan/IH sample plan
- 1439 IH and IHT in transit to 217-SY Tent parking lot
- 1517 IH reports to CSO that Direct Reading Instrument (DRI) results were less than detectable for hydrogen sulfide, ammonia, and VOCs at 217-SY tent parking lot and adjacent areas
- 1522 IHTs verify that instrumentation passed the post-use function check
- 1530 CSM sends SOEN for exiting TFC-OPS-OPER-C-67 odor event

Sampling/Monitoring Results:
IHTs used DRI to monitor for ammonia, VOCs, and hydrogen sulfide at the 217-SY parking lot and adjacent areas. All readings were less than action limits, with no elevated readings observed. There were no odors detected by the IHT's or IH's at the response scene. Instrumentation passed the post-use function check.

SWIHD References:
• #25-03439 "TFC-OPS-OPER-C-67 SY Parking Lot Odor Response"

Additional Information:
These results along with the review of the atmospheric conditions outside of the area where individuals experienced odors around the reported time of the event indicate the cause of the odor is unlikely to be from Tank Farm emissions. Below are the DFAS and VMDS data (S and SX Tank Farms are passively ventilated and do not have VMDS data):

Review of DFAS at the approximate time of odor event on 05/14/2025 @ 1341:

Washington River Protection Solutions
INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Additional Information:

- Stability Class: A
- Wind Speed: 13.9 mph
- Wind Direction: 264° (out of west)
- Mixing Height: 1500 feet above grade

VMDS exhauster ammonia readings at the approximate time of odor event on 05/14/2025 @ 1350:

- SY Exhauster: 7.6 ppm

Recommendations/Conclusions:

Recommendations:

It is recommended that the Event Investigator and the IH review results of the investigation report with the work crew.

Conclusions:

The investigation into the event, which included an analysis of environmental conditions such as worker location, wind direction, and available monitoring data at the time the odors were reported, suggests that it is unlikely the odors originated from Tank Farm vapors. Monitoring with Direct-Reading Instruments (DRI) and observations by the Industrial Hygienist indicated that the conditions causing the odors were no longer present. Consequently, the area where the odors were reported was reopened for access, and work resumed. However, the investigation was unable to identify the source of the reported odors.

Others:

N/A

Associated Documents:

iCAS Number: N/A

EIR Number: EIR-2025-044

Industrial Hygienist:

Print First and Last Name

Industrial Hygiene Level 3 Manager

Print First and Last Name

Signature / Date

Industrial Hygiene Level 2 Manager:

Print First and Last Name

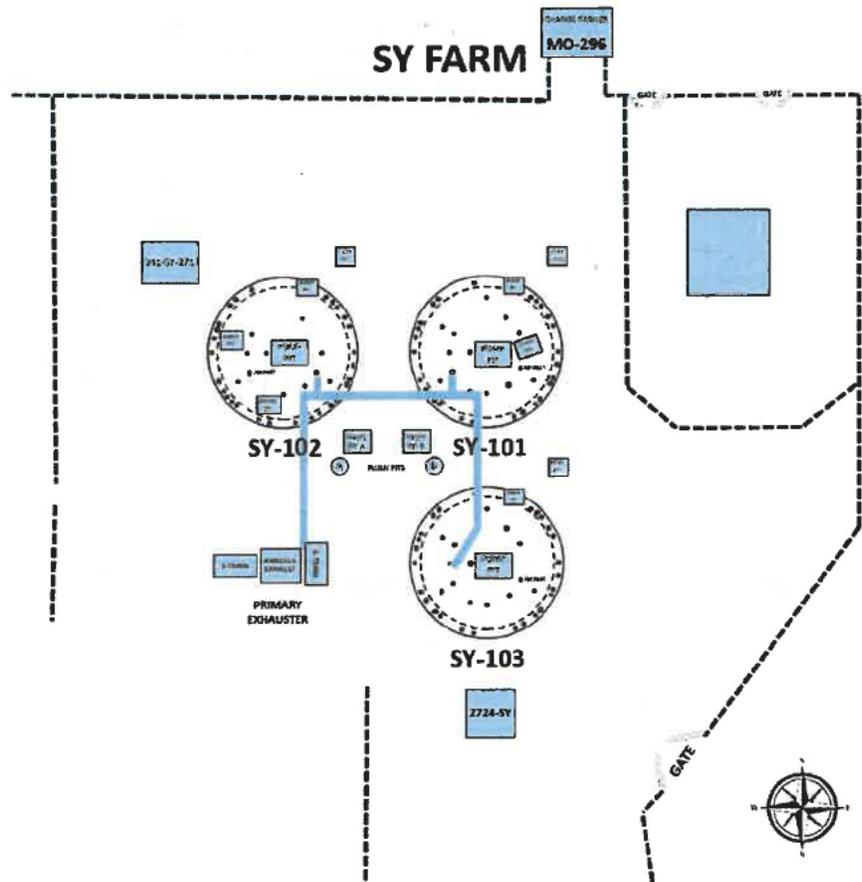
Signature / Date

ODOR/VAPOR RESPONSE CARD - 241 SY FARM

Instructions:

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at (509) 373-2689.
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.



217 Change Tent

ODOR/VAPOR RESPONSE CARD - 241 SY FARM

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

- Date and time of event: 5/14/2025 1320
- Check Applicable:
 - Odor
 - Ammonia Alarm (6 ppm)
 - Ammonia Alarm (12 ppm)
 - Alarm (other - describe):
- Your name and the work you were performing: [redacted] we just pulled up to the 217 change Tent
- Other Work Underway? Describe: not sure
- Location of event (mark area on map and wind direction): 217 change Tent
- 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): could not identify
- Is source known/likely? Describe: not sure
- Your symptoms? None
 - Headache
 - Dizziness
 - Nausea
 - Cough
 - Fatigue
 - Weakness
 - Sore Throat
 - Difficulty Breathing
 - Eye Irritation
 - Rash
 - Itch
 - Tingling
 - Numbness
 - Taste
 - Other (describe):

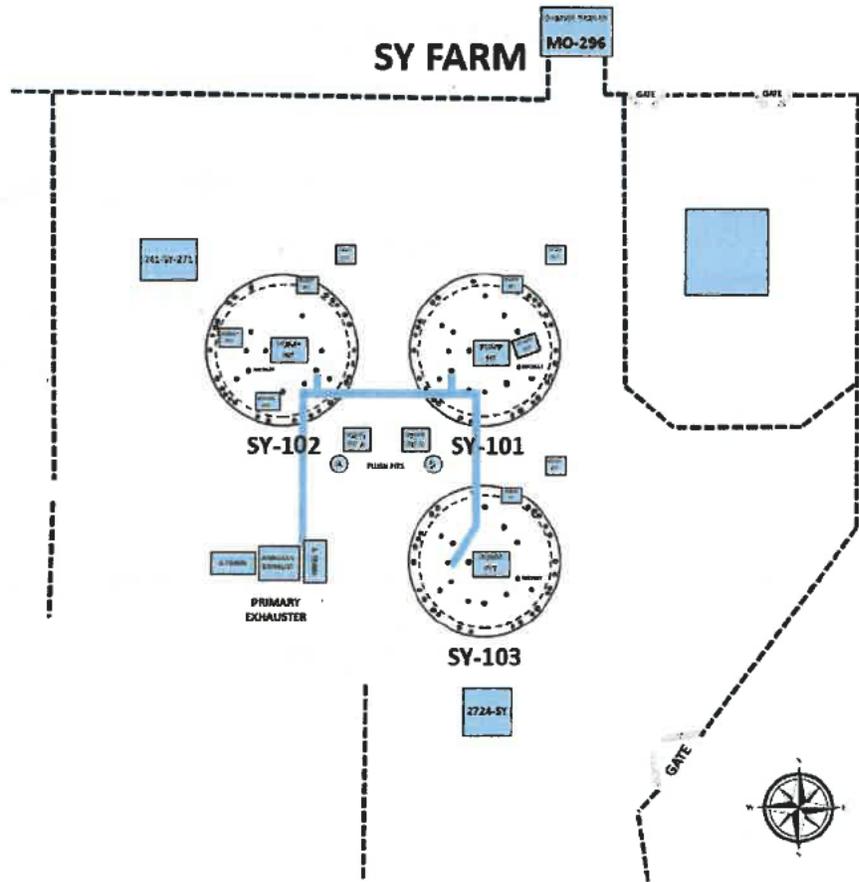
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

ODOR/VAPOR RESPONSE CARD - 241 SY FARM

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 - 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;
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Wind direction was North.
wind was also gusty.

217 SY

Parking Lot
we were here

ODOR/VAPOR RESPONSE CARD - 241 SY FARM

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

- Date and time of event: 5/14/25 13:20
- Check Applicable:
 Odor Ammonia Alarm (6 ppm) Ammonia Alarm (12 ppm) Alarm (other - describe):
- Your name and the work you were performing: [Redacted] Troubleshooting argos PCM's.
- Other Work Underway? Describe: Not sure
- Location of event (mark area on map and wind direction): 2175Y change tent parking lot.
- 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): strong, pungent, almost polymer based burning.
- Is source known/likely? Describe: Not sure
- Your symptoms? None
 Headache Dizziness Nausea Cough Fatigue
 Weakness Sore Throat Difficulty Breathing Eye Irritation Rash
 Itch Tingling Numbness Taste
 Other (describe):

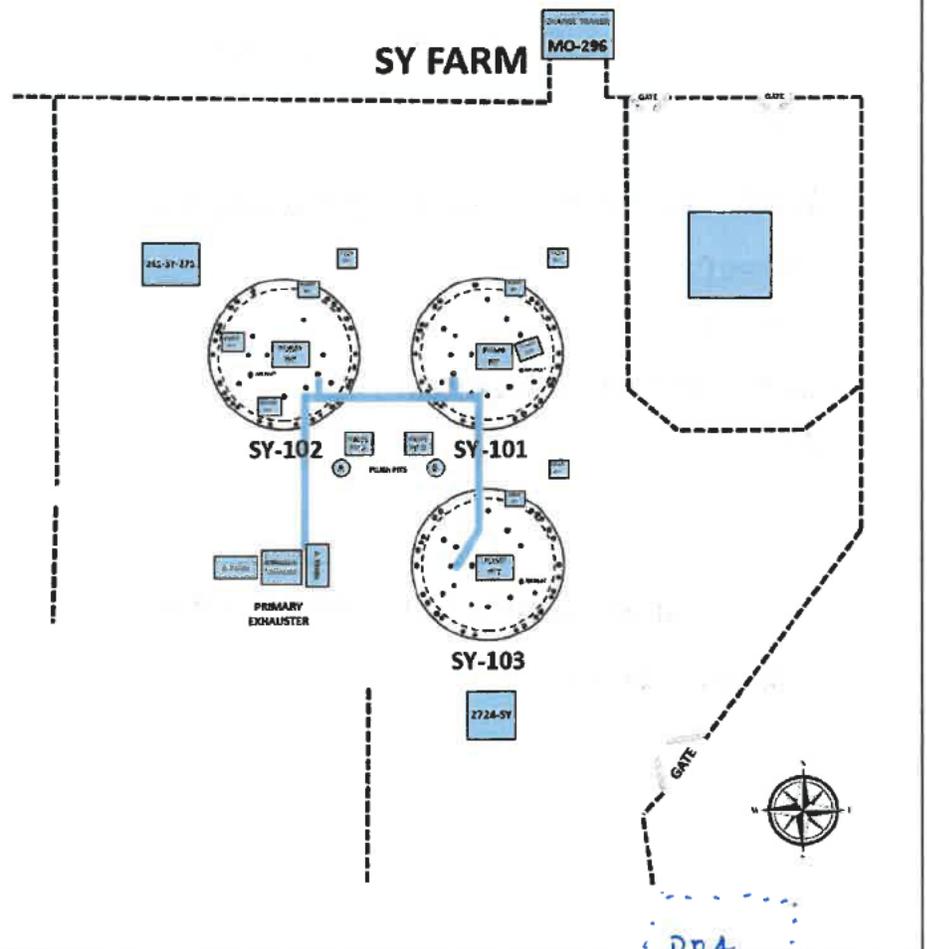
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 - a. Approximate location, see map at right;
 - b. Wind direction, speed and description, such as stable or gusty wind;
 - c. Environmental conditions, such as hot, cold, windy, rainy;
 - d. Other work or contractors in the area;
 - e. Anything else you think is relevant.
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wind was going North

241SY
Smell location

ODOR/VAPOR RESPONSE CARD - 241 SY FARM

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

- Date and time of event: 5/14/2025 1:21pm
- Check Applicable:
 Odor Ammonia Alarm (6 ppm) Ammonia Alarm (12 ppm) Alarm (other - describe): _____
- You and the workers you were performing:
[redacted], Argo's troubleshooting
- Other Work Underway? Describe:
unknown
- Location of event (mark area on map and wind direction):
217 SY
- 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): strong, pungent, plastic/chemical smell
- Is source known/likely? Describe:
unknown source
- 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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