

Hanford Tank Waste Operations & Closure (H2C)
EVENT REPORT FORM (Continued)

Hanford Tank Waste Operations & Closure (H2C)
EVENT REPORT FORM

1. Project: Tank Farm Projects 2. Report Date: 06/11/2026
3. Title: AOP-015 Response at A-103
4. Investigation Report Number (if applicable): EIR-2026-045 5. Revision: 0
6. Responsible Manager: [REDACTED]
7. Event Investigator: [REDACTED]
8. Area/Building/Location: 200E/A-Farm/241A103
9. Date and Approximate Time of Event: Date: 06/01/2026 Time: (military) 1455
10. Associated Action Request (AR) Number: ITDC-AR-2026-1929
11. Occurrence Report Number (if applicable): N/A
12. Event Learning Meeting Held: Yes [] or No [X] Date: N/A Time: (military) N/A

13. Brief Summary of Event: What Happened?

At approximately 1455 hours on 06/01/2026, three American Electric Incorporated (AEI) electricians were performing minor electrical work near A-103 in A-Farm when one of their personal ammonia monitors (PAM) alarmed at 6 parts per million (ppm).

At the time of the alarm the workers were all wearing full-face air-purifying respirators with gas/vapor cartridges (MSA GME Chemical Vapor). No odors or symptoms were reported and all involved workers declined precautionary medical evaluation.

14. What Should Have Happened?

The PAM should not have indicated increased ammonia concentrations or activated the action-level (>12 ppm ammonia) unless changing tank vapor conditions were present (which includes the COPC Sentinel indicator for ammonia).

15. Key Facts from Investigation:

The responding Industrial Hygiene Technicians (IHT) entered A-Farm to perform direct reading instrument (DRI) monitoring with a MultiRAE Pro. Monitoring was performed around A-103 where the PAM alarmed for potential sources of ammonia and/or tank vapors. IHTs field response actions did not indicate further actions were necessary in regard to worker safety and health.

To summarize the conclusions of Industrial Hygiene Investigation Report (IHIR) IHIR-00139, "AOP-015 in A-farm": The nearest active exhauster in the area is found within A Farm. The Vapor Detection Monitoring System (VMDS) reports that at 1455 hours on 06/01/2026 stack readings for ammonia in POR519 were <1 ppm. The event occurred just southeast of the exhauster. Furthermore, the review of VMDS data concludes that there was very low potential for ground level exposure from exhausters. Based on reviewing environmental conditions related to worker location and available monitoring data when the events occurred, it is unlikely that the PAM alarm was caused by Tank Farm vapors.

From the Industrial Hygiene Equipment Investigation (IHEI) IHEI-00010, "AOP-15 Response at 241-A Farm": A detailed physical evaluation of the Ventis Pro 5 was conducted to identify any mechanical damage, component degradation, or configuration faults affecting device functionality. No physical defects or configuration errors were observed. Attempts to replicate the alarm during quality control testing by

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EVENT REPORT FORM

obstructing the inlet, simulating small impacts or altering ambient temperature were unsuccessful. The PAM unit has been removed from service.

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

Due to access restrictions at A-Farm an impact to operational capabilities occurred until response actions could be completed and access restored.

17. Problem Statement *(Who, What, Where, When, and Consequence/Impact):* N/A

18. Event Causal Matrix Summary: N/A

19. IHIR-00139, "AOP-015 in A-Farm" (on next page):

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR)

Event Title:

AOP-015 in A-farm

IHIR Number:

IHIR-00139

IHEI Number:

IHEI-00011

Date:

06/01/2026

Time:

1455

Location:

A-Farm

Event Summary and Timeline:

Ventis Pro alarm at 6 ppm ammonia was activated on one worker in A-farm. At the time of the event the worker was performing electrical work. The CSM was notified of PAM alarm at A-103 area. AOP-015 response actions were taken as follows:

- 1455 - Personal Ammonia Monitor (PAM) alarms at 6 ppm in the field
- 1509 - Central Shift Office (CSO) notified - declined medical
- 1519 - Industrial Hygienist (IH) in CSO
- 1524 - Portable exhauster 518 + 519 Oppm NH₃, mixing height 1200 ft
- 1531 - Notification made to Fact Rep
- 1533 - Mixing height stable
- 1533 - Retrieval IH in CSO
- 1536 - Industrial Hygiene Technician (IHT) notified to respond (B shift)
- 1538 - IH Requested Industrial Hygiene Event Investigation Report (IHIR) + Industrial Hygiene Equipment Investigation (IHEI) from ^IH Records
- 1540 - Site Wide Industrial Hygiene Database (SWIHD) report created: 26-03357
- 1541 - IHT in CSO
- 1544 - Event Investigation Report (EIR) number assigned: 2026-045
- 1547 - Confirmed peak 6 ppm NH₃
- 1549 - Technical Specialist contacted, confirmed instrument # for IHEI
- 1551 - No Odors + No Symptoms
- 1552 - IHT Briefing (RWP: TF-100)
- 1554 - HPT en route + IHT en route
- 1556 - IHIR #0139 + IHEI #00011 assigned
- 1557 - Transfer AP-101 → A-106
- 1559 - IH Manager updated lvl 2, IH Manager, deputy → lvl 2
- 1603 - Notified Hanford Field Office (HFO) IHs
- 1649 - IHT reports area cleared, readings all below detectable
- 1652 - IHT DRI passed post function check
- 1710 - Exit AOP-015

Sampling/Monitoring Results:**Field Response Area Readings:**

- Ammonia: less than detectable (<1 ppm)

The responding IHT entered A Farm to perform DRI monitoring with a MultiRAE Pro. Monitoring was performed around A-103 where the PAM alarmed for potential sources of ammonia and/or tank vapors. DRI monitoring and observations made by the IHT demonstrated that no ongoing conditions which could result in PAM alarm existed at the time.

PAM Datalog:

PAM data is recorded in 10 second increments, so it did not capture the actual peak reading of 6 ppm. Per the alarm log, peak reading occurred for 4 seconds at 6/1/2026 2:50:45 PM, within one of the 10 second interval readings on the datalog.

SWHD References:

26-03361 TF-AOP-015 Response at 241-A Farm

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"

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Additional Information:

Task 1: Full Face Air Purifying Respirator (FF-APR) with Gas/Vapor cartridges (MSA GME Chemical Vapor).

The nearest active exhauster in the area is found within A Farm. The Vapor Detection Monitoring System (VMDS) reports that at 1455 on 06/01/2026 stack readings for ammonia in POR519 were <1 ppm. The event occurred just southeast of the exhauster.

Review of DFAS at the approximate time of the PAM alarm event on 06/01/2026 @1455:

- Wind Speed: 5.7 mph
- Wind Direction: 97
- Mixing Height: 1300 m above grade
- Stability Class: A (extremely unstable conditions)

Exhauster stacks have enhanced monitoring, VMDS, that can be used to detect elevated readings and provide further warnings of unexpected conditions. As a more conservative approach, Memo WRPS-1904672.1, TANK FARM EXHAUST STACK CONCENTRATION ALARM/ACTION LEVELS FOR AMMONIA establishes stack alarm/action set points for Tank Farm Exhausters. The alarm/action set points are based on a linear extrapolation of the Quantitative Risk Assessment model prediction resulting in various ammonia concentrations at an unspecified ground receptor.

241-A:

- High Alarm was conservatively established at 160 ppm Ammonia
 - Ammonia concentration of 2.5 ppm at an unspecified ground receptor
- High High Alarm was conservatively established at 320 ppm Ammonia
 - Ammonia concentration of 5 ppm at an unspecified ground receptor

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

Recommendations/Conclusions:

Conclusions:

Based on the event investigation and reviewing environmental conditions related to worker location and available monitoring data when the events occurred, it is unlikely that the PAM alarm was caused by Tank Farm vapors. Thus, the PAM that alarmed has been pulled from the field and is undergoing testing, as contained in IHEI-00011.

Others:

The worker did not report any symptoms and was offered and declined medical surveillance.

Associated Documents:

iCAS Number: N/A

EIR Number: 2026-045

Industrial Hygienist:

[REDACTED]

Print First and Last Name

[REDACTED]

Signature / Date

Industrial Hygiene Level 3 Manager

[REDACTED]

Print First and Last Name

[REDACTED]

Signature / Date

Industrial Hygiene Level 2 Manager:

[REDACTED]

Print First and Last Name

[REDACTED]

Signature / Date

20. IHEI-00011, "AOP-15 Response at 241-A Farm" (on next page):

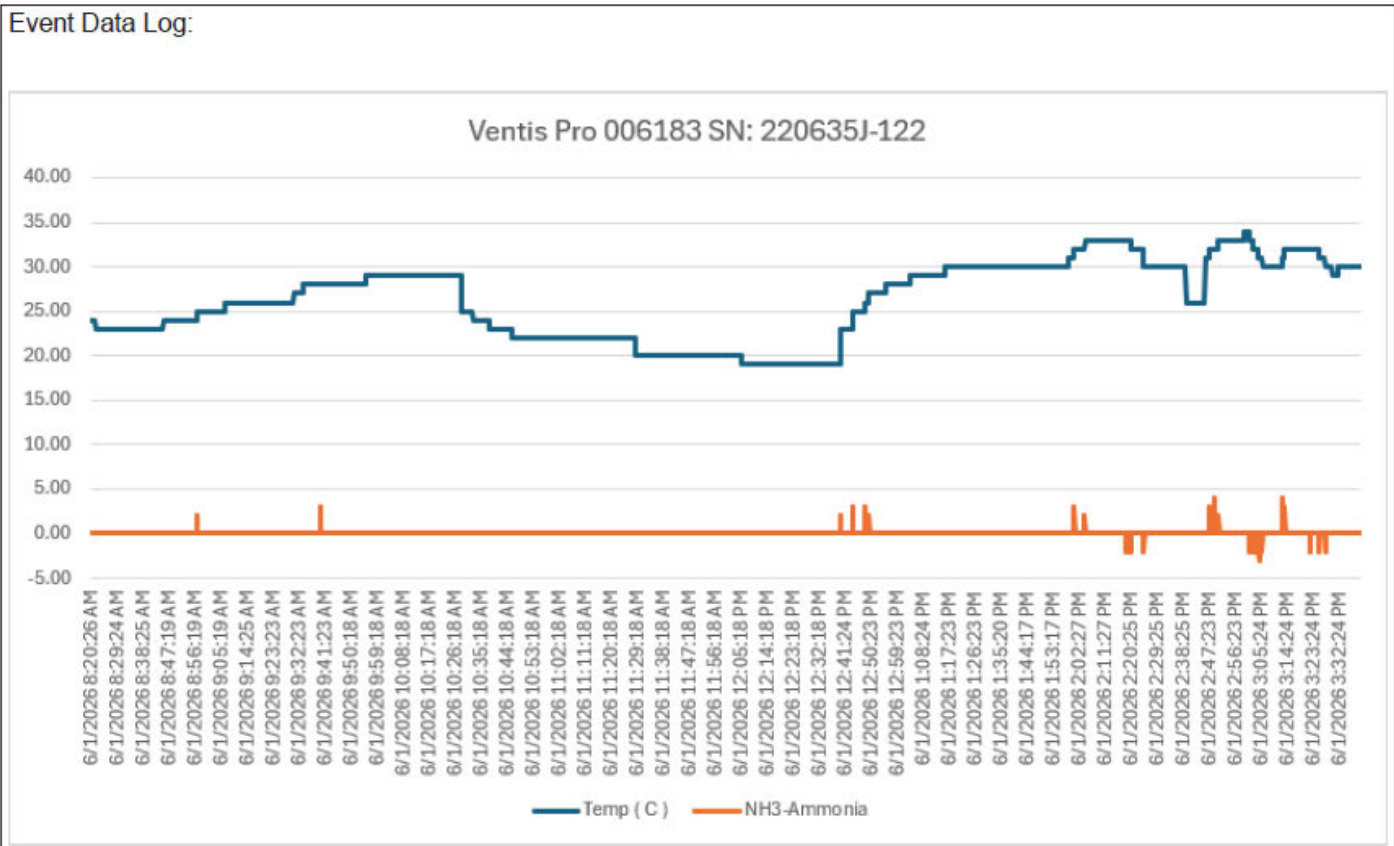
INDUSTRIAL HYGIENE EQUIPMENT INVESTIGATION (IHEI)

Event Title: AOP-15 Response at 241-A Farm	IHEI Number: 00011
IHIR Number: 00139	

Date: 6/1/2026	Time: 14:50	Location: A-103
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Device Information: IH ID: 006183 SN: 220635J-122
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Last Calibration: 5/11/2026 - Passed	Last Bump: 5/26/2026 - Passed
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Peak Reading:

Time	Duration	Peak Reading	Location
6/1/2026 2:50:45 PM	00:00:04	6	A-Farm

Recommendations/Conclusions:

A comprehensive assessment was undertaken to evaluate the operational performance of the Ventis Pro 5 instrument. This assessment included an in-depth review of the instrument's full span reserve, analysis of its alarm and data logs, examination of its calibration and bump test records and physical inspection.

ODOR/VAPOR RESPONSE CARD - 241 A FARM

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

- Date and time of event: 06/01/2026 @ 2:55pm
- Check Applicable:
 Odor Ammonia Alarm (6 ppm) Ammonia Alarm (12 ppm) Alarm (other - describe): _____
- Your name and the work you were performing:
[REDACTED] WAS TERMINATING MEET TRACE POWER CONNECTION BOX
- Other Work Underway? Describe:
TERMINATING MINI POWER ZONE
- Location of event (mark area on map and wind direction): _____
- Name(s) of others in or near the affected area:
[REDACTED]
- Was Industrial Hygiene present, who?
NOT AT THAT MOMENT ([REDACTED])
- 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): _____

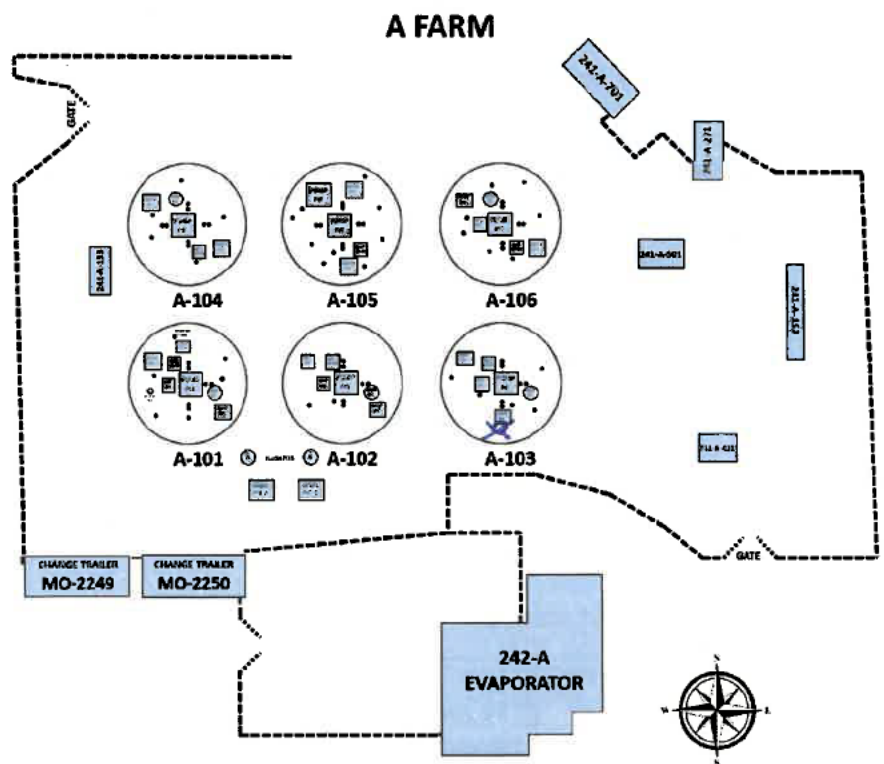
2. Provide this completed card (Page 1 & 2) to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM. If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

ODOR/VAPOR RESPONSE CARD - 241 A FARM

Instructions:

1. Notify Immediate Supervisor.
2. Contact Central Shift Manager (CSM), at (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; NONE
 - 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: 6/1/2020 2:55 pm
- Check Applicable:
 - Odor
 - Ammonia Alarm (6 ppm)
 - Ammonia Alarm (12 ppm)
 - Alarm (other - describe): _____
- Your name and the work you were performing: [REDACTED] Electrical install package A-103 Riser 12
- Other Work Underway? Describe: _____
- Location of event (mark area on map and wind direction): _____
- 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): Nothing it was wearing mask
- 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): _____

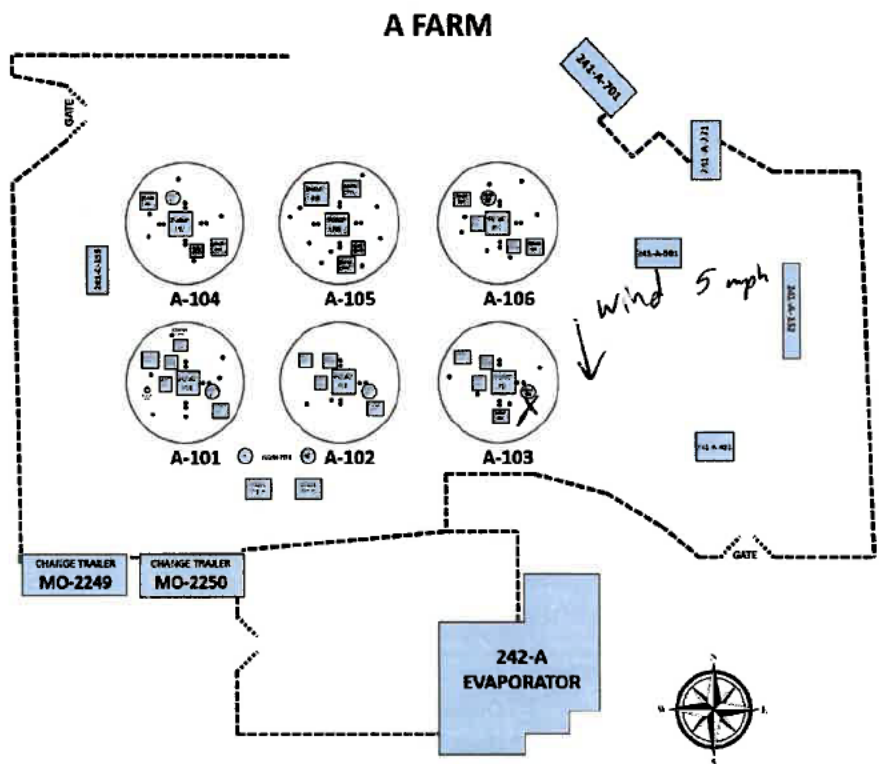
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ODOR/VAPOR RESPONSE CARD - 241 A FARM

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

- Date and time of event: ~~4/11/26~~ 6/11/26 2:55
- Check Applicable:
 - Odor
 - Ammonia Alarm (6 ppm)
 - Ammonia Alarm (12 ppm)
 - Alarm (other - describe): _____
- Your name and the work you were performing: _____ electrical work
- Other Work Underway? Describe: _____
- Location of event (mark area on map and wind direction): _____
- Name(s) of others in or near the affected area: _____
- Was Industrial Hygiene present, who? _____
- Describe the odor:
 - Sweet Sour Smoky Septic/Sewer Musty Rotten
 - Metallic Onion Earthy Ammonia Citrus Solvent
 - Other (describe): _____
- 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): _____

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 - a. Approximate location, see map at right;
 - b. Wind direction, speed and description, such as stable or gusty wind;
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