Hanford Tank Waste Operations & Closure (H2C)

EVENT REPORT FORM

1. Project: Production Operations/ AZ Team Area Day Shift **2. Report Date:** 04/06/2026

3. Title: TF-AOP-015 for AW Farm

4. Investigation Report Number *(if applicable)*: EIR-2026-029 **5. Revision:** 0

6. Responsible Manager: [redacted]

7. Event Investigator: [redacted]

8. Area/Building/Location: 200 East/AW Farm/241-AW-101 Leak Detection Pit

9. Date and Approximate Time of Event: Date: 03/18/2026 **Time: *(military)*** 1400

10. Associated Action Request (AR) Number: ITDC-AR-2026-1305

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 1400 hours on 03/18/2026, an H2C worker was performing quarterly administrative lock rounds in 241-AW when their Personal Ammonia Monitor (PAM) alarmed at 14 parts per million (ppm) near the 241-AW-101 Leak Detection Pit. The indicated reading quickly decreased to 0 ppm within an estimated two seconds.

Two additional workers in close proximity checked their PAMs and observed readings of 0 ppm. At the time of the event, all workers were wearing Full Face Air-Purifying Respirators with GME (Multi-layer filtration system) cartridges, as required by RPF-PLN-173, *Respiratory Protection Form Task 1.* No odors or symptoms were reported, and all involved workers declined precautionary medical evaluation.

14. What *Should Have* Happened?

The PAM should have not indicted an increased ammonia concentrations or activated the action-level alarm (≥12 ppm ammonia) unless changing tank vapors conditions were present (Which includes the COPC sentinel indicator of ammonia).

15. Key Facts from Investigation:

- At the time the PAM began to alarm at 14 ppm the worker was near the 241-AW-101 Leak Detection Pit performing quarterly administrative lock rounds in 241-AW. There were two other workers completing this activity however only one of the three PAMs had a reading above 0 pp. At 1455 hours Central Shift Manager (CSM) entered TF-AOP-015, *Response to Personal Ammonia Monitor Alarm* AW farm was evacuated and access to AW Farm was restricted. At 1510 hours Industrial Hygiene Technicians (IHTs) performed field response actions per IHSP-PROG-MULTI-TF-AOP-15, *Response to Personal Ammonia Monitor Alarm.* At 1608 hours Access was restored and TF-AOP-015 was exited for AW farm. 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 Event Investigation Report IHIR-00133, "*TF-AOP-015 at 241-AW Farm on Wednesday, March 18, 2026*": At the time of the event, both the primary and annulus exhausters were operating and maintaining negative ventilation in their respective spaces. Based on equipment

configuration, exhauster data, weather conditions, and SmartSite/DFAS information, ammonia from fugitive emissions or Tank Farm exhausters is considered a highly unlikely cause of the PAM alarm. A malfunction or momentary issue with the PAM itself is identified as the more probable explanation.

- To summarize the conclusions of Industrial Hygiene Event Equipment Report IHIR-0008, "AOP-015 AW Farm": Reviewed the PAM and found that the instrument was functioning within specifications. The PAM passed both calibration and bump testing. Alarm logs showed two brief ammonia readings (14 ppm and 13 ppm), each returning rapidly to zero. The worker reported the sensor may have been obstructed due to the device being clipped with the inlet facing inward, and nearby PAM-equipped workers recorded no elevated concentrations. No mechanical or configuration issues were identified, and efforts to recreate the alarms were unsuccessful. As a precaution, the instrument should be sent to Industrial Scientific for further evaluation. This action will be captured in ITDC-CR-2026-1305.

- The response to the alarm was delayed by approximately 30 minutes due to breakdowns in the notification chain. Although workers followed procedural direction by checking nearby PAMs and exiting the area, they notified their supervisor instead of the CSM. Subsequent notifications were routed through additional personnel before reaching the appropriate authority, delaying response actions. An action to reinforce expectations in TFC-ESHQ-IH-C-78, *Field Use of the Ventis Pro5 Personal Ammonia Monitor and PAM-C KIOSK* Section 4.5 for all Tank Farm workers, First Line Management, and managers who assign tasks requiring PAM use. This action will be captured in ITDC-CR-2026-1305.

16. Impact to Facility: *(Caused by the event or a description of known consequences)*:
Due to access restrictions at AW 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

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

26. Signatures

Prepared By: *(Event Investigator)*

[redacted] [redacted]

Name (First, Middle Initial, Last) *Signature / Date*

Responsible Manager Approval:

[redacted] [redacted]

Name (First, Middle Initial, Last) *Signature / Date*

CAS Manager Approval:

[redacted] [redacted]

Name (First, Middle Initial, Last) *Signature / Date*

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR)

Event Title:	IHIR Number:
TF-AOP-015 at 241-AW Farm on Wednesday the 18th of March 2026.	**IHIR-00133**
	IHEI Number: **IHEI-00008**

Contents

Date:	Time:	Location:
03/18/2026	Approximately 1400	241-AW Farm, near the AW-101 Leak Detection Pit

Event Summary and Response Timeline:

Event Summary:

At approximately 1400 on March 18th 2026, one H2C employee who was performing quarterly administrative lock rounds in 241-AW observed a Personal Ammonia Monitor (PAM) alarm at 14 parts per million (ppm) while near the 241-AW-101 Leak Detection Pit. Indicated readings quickly declined (estimated 2 seconds) to 0 ppm. The two other employees in close proximity checked their PAMs and observed indicated readings of 0 ppm. At the time of the event the workers were wearing Full Face Air Purifying Respirators with GME cartridges, as per MDRPF-PLN-173 Task 1. No odors or symptoms were reported, and all affected employees declined precautionary medical evaluation.

Response Timeline:

1430 Production Operations (PO) Industrial Hygiene Technician (IHT) notifies PO Industrial Hygiene Manager (PO IH Manager) that the PO Area Dayshift Manager (ADM) has reported an issue with a PAM.

1433 PO IH Manager reports to PO ADM's office and is informed that an employee's PAM had alarmed. PO IH Manager reinforces expectation to report all PAM Response Limit and Action Limit alarms to the Central Shift Manager (CSM).

1444 Production Operations (PO) Industrial Hygienist (IH) and PO IH Manager arrive at the Central Shift Office (CSO) to support response actions.

1446 PO IH Manager contacts IH Technical Integration (TI) Technical Specialist (TS) to initiate Industrial Hygiene Equipment Investigation (IHEI) process, and to request instrument data logs.

1448 PO IH Manager contacts the PO ADM to request Odor/Vapor Response Cards (O/VRCs) from affected workers.

1449 PO IH 2 arrives at CSO and reports that event initiating PAM shows peak reading of 16 ppm, has been transported to 272AW, and the data log download is in progress.

1450 PO IH 3 and Direct Feed Low Activity Waste (DFLAW) IH arrive at CSO to support response actions.

1451 PO IH 1 checks Data Fusion and Advisory System (DFAS) for current weather condition details:

- Mixing Height: 1300 feet above grade
  - PO IH 1 relays mixing height information to Central Shift Manager (CSM).
- Wind Speed: 14.5 miles per hour
- Wind Direction: From 229° (West Northwest)
- Stability Class: E (Slightly stable conditions)
- Exhauster Ammonia Concentration: DFAS does not indicate that displayed stack concentrations are above alarm limits.

1452 Affected employees arrive at CSO to populate OV/RCs.

1454 PO IH Manager briefs IH Manager on event and planned response actions.

1455 SOEN: "Entering TF- AOP-015 "Response to Personal Ammonia Monitor Alarm" for a personal ammonia monitor alarm at 16 ppm in AW farm. Access to AW farm is restricted. All personnel performing work in AW Farm perform an orderly egress. CSM"

1456 PO IH Manager requests Industrial Hygiene Technician (IHT) support from PO Shift IHT Supervisor.

1501 DFLAW IH receives PAM data log and confirms 14 ppm 10 second Time Weighted Average (TWA) peak reading.

1502 Affected employees complete and submit O/VRCs and Personal Ammonia Monitor Equipment Alarm, Issues, and Concerns Form (PAIC).

1502 PO IH 1, PO IH2, PO IH 3, DFLAW IH, PO IH Manager, and Central Shift Manager (CSM) review submitted O/VRCs and PAIC. No odors or symptoms were identified.

1504 PO Shift IHT arrives at CSO to support field response actions and is briefed by PO IH 1:

- Approach affect area from up-wind if possible and survey in affected area as indicated by submitted O/VRCs.
- Perform monitoring as per Industrial Hygiene Sample Plan (IHSP) IHSP-TI-MULTI-TF-AOP-015
- Respiratory Protection Equipment (RPE) required as per Respiratory Protection Form (RPF) RPF-TF-AOP-015 Task 1.

1506 PO IH 1 confirms current wind direction utilizing Data Fusion and Advisory System (DFAS).

NOTE: Event Response Timeline continued on next page.

Event Response Timeline continued:

1508 CSM contacts Radiological Controls (RadCon) Point of Contact (POC) for Radiation Work Permit (RWP) assignment for field response actions.
1510 Field Response Team (PO IH 1 and PO Shift IHT) depart CSO to perform field response actions.
1536 Field Response Team exits AW Farm. All readings are at background levels. PO Shift IHT in route to post-use-function-check instrument.
1540 PO IH Manager updates IH Manager on event response progress and preliminary results.
1540 PO Shift IHT reports that field response instrument passed post-use-function-test.
1608 SOEN: "Exited TF-AOP-015 "Response to Personal Ammonia Monitor Alarm" in AW Farm. Response actions are complete and results are at or below background levels. Normal Access restored to AW Farm. CSM"

Event Response Sampling/Monitoring Results:

Direct Reading Instrument Monitoring Results:

- DRI readings acquired during field response actions:

Location	Ammonia (NH_3)
Area around AW-101 Leak Detection Pit	0.0 ppm
General Area during farm entry	0.0 ppm

Sampling Results:

- Grab samples were not collected for analysis during field response actions

SWIHD References:

26-01617: "TF-AOP-015 Response AW Farm"

Additional Information:

Personal Ammonia Monitor Information:

A review of the PAM data log after the event revealed an initial alarm event occurred at 1358 with a peak of 14 ppm, which cleared (results returned to 0 ppm) by the next 10 second data log interval. A second alarm event occurred at 1417 with a peak of 6 ppm, also clearing by the next 10 second interval. It is unlikely that sensor exposure to ammonia concentrations of 14 ppm would result in an instrument signal and subsequent clearing within 20 seconds, possibly indicating unspecified sensor malfunction. See IHEI-00008 for more information related to PAM functionality.

Farm Equipment Configuration Information:

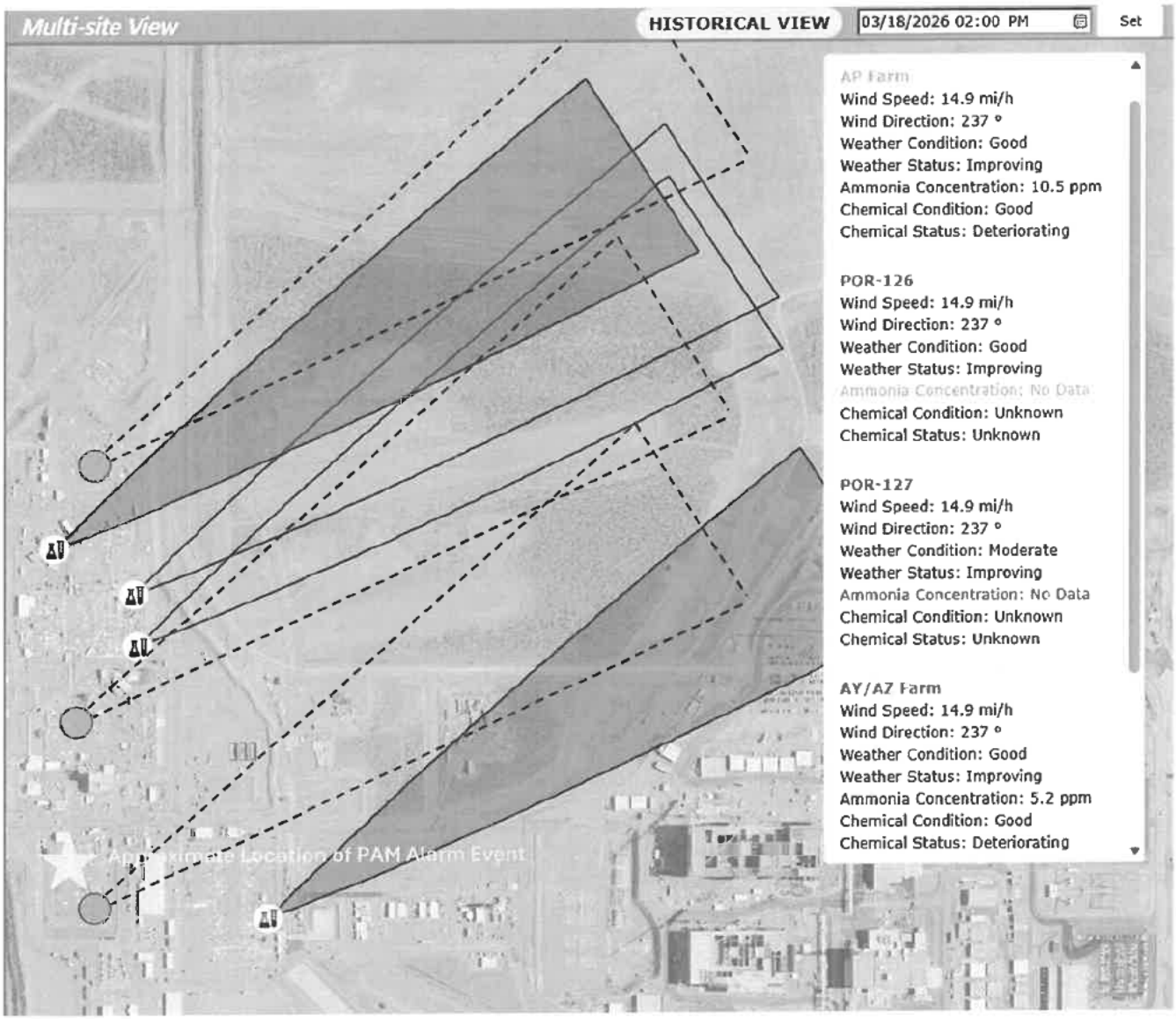
At the time of the PAM alarm event the work crew was located approximately downwind of the AW-101 Leak Detection Pit (241-AW-01C). 241-AW-01C is not interconnected into the primary waste tank headspace or connected to the annulus space. At the time of the event both the primary exhausters were in operation, providing negative ventilation into tank vapor containing primary tank headspace. Neither the 241-AW tank headspace connected systems, or 241-AW-01C are anticipated source of ammonia emissions.

NOTE: Additional Information continued on next page.

Additional Information continued:

Review of Data Fusion & Advisory System (DFAS) application, powered by SmartSite™, dashboard for the approximate time of the event:

DFAS Multi-Farm View Exhauster Plume Model: 03/18/2026 @ 1400 (approximate time of event):



NOTE: 241-AN Farm, 241-AW Farm, and A Farm (POR-518/519) Exhausters are not connected to the DFAS; however, approximate exhauster plumes were added based on other modeled plumes.

NOTE: DFAS Review continued on next page.

DFAS Review continued:

DFAS Weather Conditions: 03/18/2026 @ 1400 (app approximate time of event):

The atmospheric stability is the tendency of the atmosphere to increase or decrease the vertical displacement of air through mode of force such as the wind. This function is closely related to the ability of the atmosphere to disperse pollutants. Atmospheric stability cannot be measured directly. Rather, it is generally estimated based on the wind velocity and the solar radiation (Casal, 2008). The stability is also impacted by the slope of the temperature relative to altitude (environmental lapse rate) (CushmanRoisin, 2012). The National Oceanic and Atmospheric Administration (NOAA) Pasquill stability classes are denoted by 7 letters ranging from A (extremely unstable conditions) to G (extremely stable conditions). An unstable atmosphere is characterized by significant vertical displacement of air, a negative vertical temperature gradient (the temperature decreases with height), along with frequent fluctuations in wind direction and strong solar radiation. A stable atmosphere has low turbulence, positive vertical temperature (temperature increases with height), little fluctuation in the wind direction, and limited solar radiation (Casal, 2008). Exhauster plumes may move horizontally (stability classes A, B, C, and D) or vertical (stability classes E, F, and G). Horizontal plumes found during unstable and neutral states are further characterized by their pattern: fanning, fumigation, coning, looping, and lofting. At Hanford Tank Farms, exhauster plumes may interact with ground level during stability class A conditions if the Mixing Height constricts plume dispersion at sufficiently low levels (typically less than 100 ft. above grade). The concentration of plume-borne contaminants at the ground level receptor is dependent on the concentration of the emission and the factor of dilution occurring through dispersion as the plume emission moves away from the emission point.

References:

- Casal, J. (2008). Chapter 6 Atmospheric dispersion of toxic or flammable clouds. Industrial Safety Series, 8, 195-248. Retrieved from: https://doi.org/10.1016/S0921-9110(08)80008-0
- Cushman-Roisin, B. (2012). Environmental Transport and Fate- Smokestack Plumes (lecture slides). Dartmouth College: Thayer School of Engineering. Retrieved from: https://cushman.host.dartmouth.edu/courses/engs43/Smokestack-plumes.pdf

Review of Vapor Monitoring and Detection System (VMDS) data:

Active ventilation systems exhaust a mixture of all connected tanks with output through a "stack". The emission of exhaust ventilation systems is monitored either continuously by the VMDS or periodically by alternate monitoring.

VMDS exhauster ammonia readings on 03/18/2026 @ 1400 (approximate time of event):

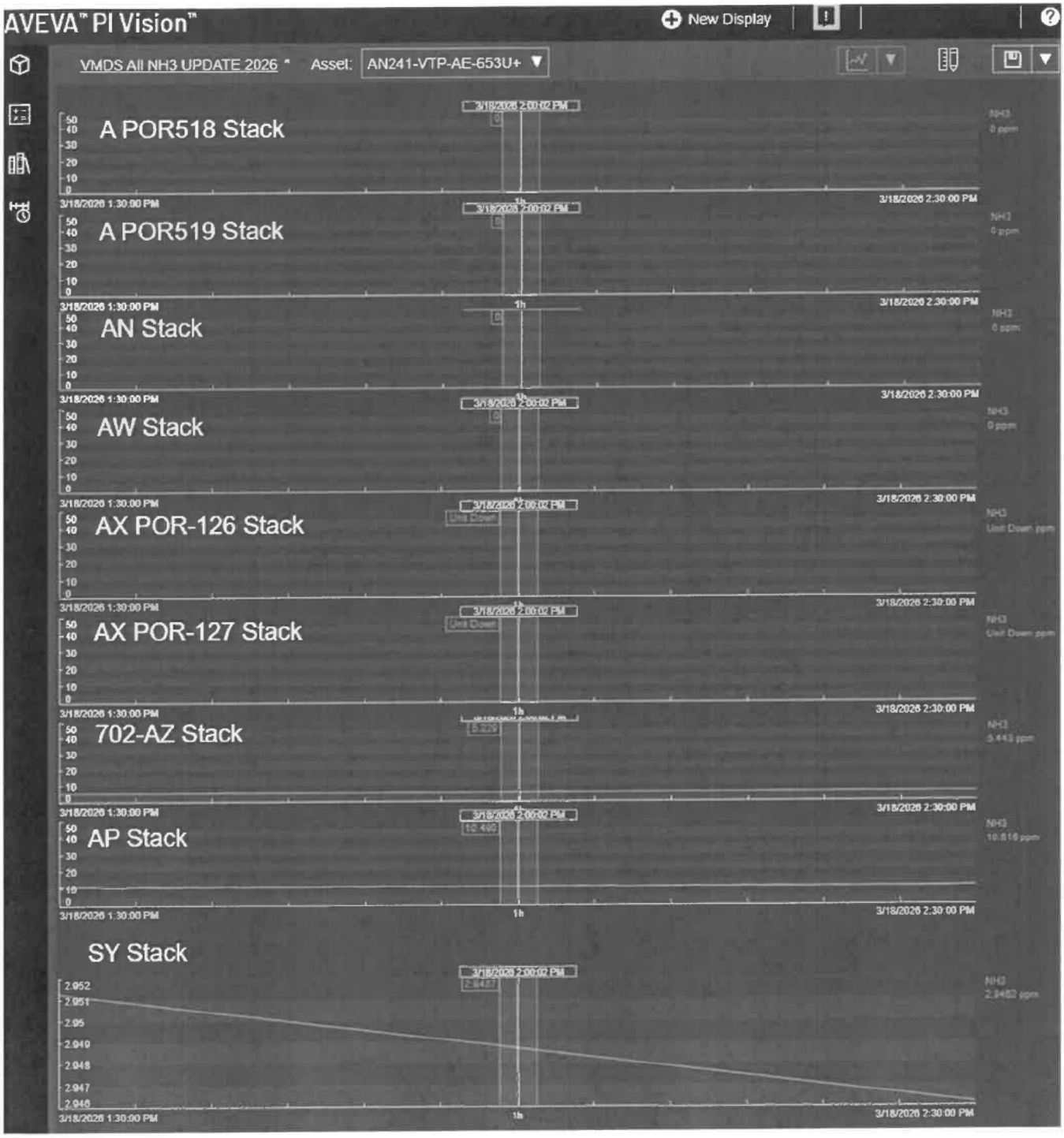
Farm	Exhauster	Ammonia Concentration
241-A	POR 518	0 ppm
	POR 519	0 ppm
241-AN	Primary	0 ppm
241-AW	Primary	0 ppm
241-AX	POR 126	N/A*[A]
	POR 127	N/A*[A]
241-AY/AZ	702AZ	5.229 ppm
241-AP	Primary	10.490 ppm
241-SY	Primary	2.9487 ppm

*[A] Exhausters have been placed into shut-down after conclusion of farm retrieval. Null data is still displayed in various VMDS data products, however exhausters and stack monitoring instrumentation is out of service.

NOTE: VMDS Review continued on next page.

VMDS Review continued:

AVEVA™ PI Vision™ Exhauster Stack Ammonia Concentrations @ 03/18/2026 @ 1400 (approximate time of event)



NOTE: VMDS Review continued on next page.

VMDS Review continued:

Memo WRPS-1904672.1, TANK FARM EXHAUST ~ CK 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 (QRA) model prediction; conservatively established at the ammonia stack concentration that could result in various ammonia concentrations at an unspecified ground receptor:

- High Alarm → ammonia concentration of 2.5 ppm at an unspecified ground receptor
- High High Alarm → ammonia concentration of 5 ppm at an unspecified ground receptor

Memo WRPS-1904672.1, TANK FARM EXHAUST ~ CK CONCENTRATION ALARM/ ACTION LEVELS FOR AMMONIA:

Tank Farm	Exhauster	High Alarm	High High Alarm
241-A	POR518/POR519	160 ppm	320 ppm
241-AN	Primary		
241-AP	Primary		
241-AW	Primary	460 ppm	920 ppm
241-AX	POR126/POR127*[A]		
241-AY/AZ	702AZ		
241-SY	Primary	310 ppm	620 ppm

*[A] Exhausters have been placed into shut-down after conclusion of farm retrieval. Null data is still displayed in various VMDS data products, however exhausters and stack monitoring instrumentation is out of service.

Vapor Monitoring Detection System (VMDS) summary: 03/11/2026 @ 1400 to 03/18/2026 @ 1400:

Tank Farm	Exhauster	Minimum*[B]	Maximum*[B]
241-A	POR518/POR519	0 ppm	0 ppm
241-AN	Primary	0 ppm	0 ppm
241-AP	Primary	3.327 ppm	21.620 ppm
241-AW	Primary	0 ppm	0 ppm
241-AX	POR126/POR127	N/A*[A]	N/A*[A]
241-AY/AZ	702AZ	4.282 ppm	6.813 ppm
241-SY	Primary	2.981 ppm	28.402 ppm

*[A] Exhausters have been placed into shut-down after conclusion of farm retrieval. Null data is still displayed in various VMDS data products, however exhausters and stack monitoring instrumentation is out of service.

*[B] VMDS Alternate Real Time Monitoring performed 03/11/2026 to 03/18/2026 for 241-AN and 241-AW primary exhausters.

When stack monitoring via the VMDS is unavailable, and ventilation is operating, IH will conduct alternate monitoring for ammonia. Report TOC-IH-RPT-50042, Ammonia Monitoring- Rate of Change of Tank Vapor Source Concentration and Monitoring Frequency, recommends measuring the exhaust ventilation systems once every 4 days. Conservatively, stack readings are required once per calendar day, in accordance with ARP-T-041-00002 and are acquired in accordance with TF-OPS-IHT-037.

Applicable SWIHD surveys:

Survey Number	Title	Date
26-01441	VMDS Alternative Real Time Monitoring	03/11/2026
26-01463	VMDS Alternative Real Time Monitoring	03/12/2026
26-01476	VMDS Alternative Real Time Monitoring	03/13/2026
26-01485	VMDS Alternative Real Time Monitoring	03/14/2026
26-01495	VMDS Alternative Real Time Monitoring	03/15/2026
26-01527	VMDS Alternative Real Time Monitoring	03/16/2026
26-01562	VMDS Alternative Real Time Monitoring	03/17/2026

NOTE: VMDS Review continued on next page.

VMDS Review continued:

Vapor Monitoring Detection System (VMDS) Alternate Monitoring 03/11/2026 to 03/18/2026:

Tank Farm	Exhauster	Minimum	Maximum
241-A	POR518/POR519	0 ppm	4 ppm
241-AN	Primary	3 ppm	14 ppm
241-AP	Primary	2 ppm	9 ppm
241-AW	Primary	6 ppm	14 ppm
241-AX	POR126/POR127*[A]	N/A	N/A
241-AY/AZ	702AZ	3 ppm	9 ppm
241-SY	Primary	N/A	N/A

*[A] Exhausters have been placed into shut-down after conclusion of farm retrieval. Alternate monitoring not performed.

A review of the DFAS application, powered by SmartSite™, Weather Details dashboard and VMDS exhauster ammonia readings for the approximate time of the Event, indicate the cause of the PAM alarm is unlikely to be from Tank Farm Exhauster emissions; as concentrations at emission points was insufficient to allow for the possibility of notable concentrations at the ground receptor, weather conditions presented low likelihood for ground-plume interaction.

NOTE: Additional Information continued on next page.

Additional Information continued:

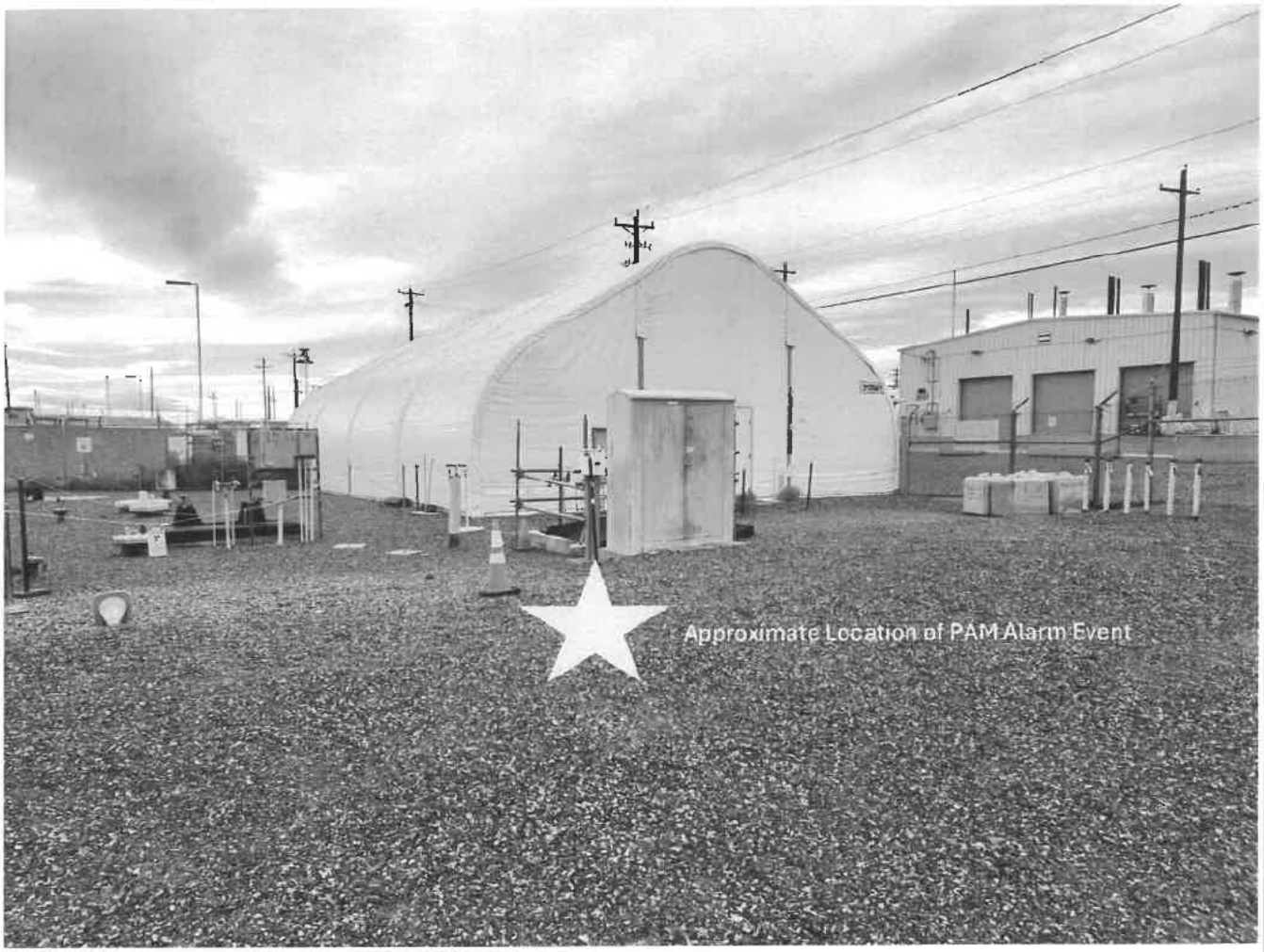
Event Map:

NOTE: Additional Information continued on next page.

Additional Information continued:

Event Response Pictures:

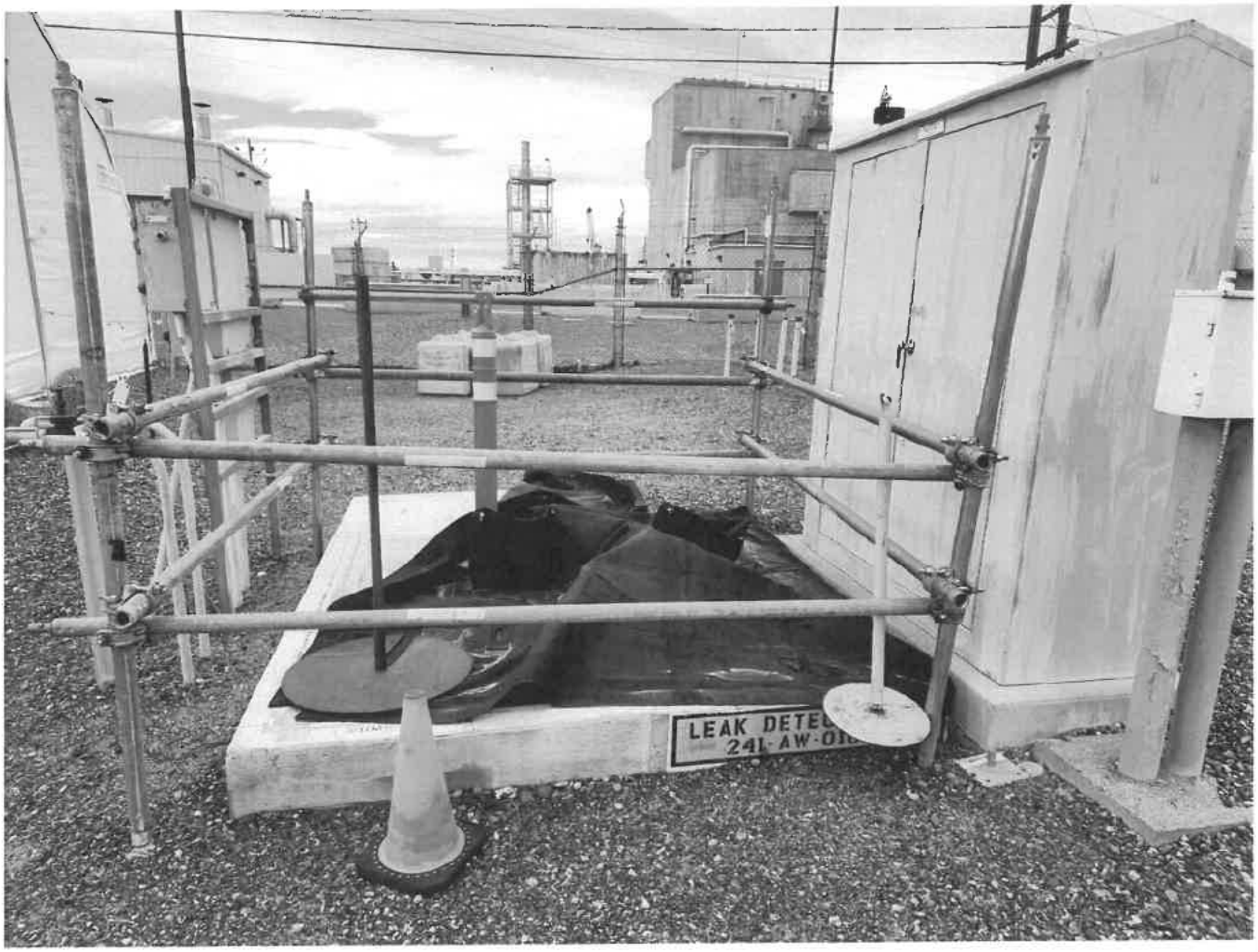
241-AW-01C from the East Southeast: Approximate location of PAM Alarm Event:



NOTE: Event Response Pictures continued on next page.

Event Response Pictures continued:

241-AW-01C From the South:



Conclusions & Recommendations:

Conclusions:

At the time of the event both the primary and annulus exhausters were in operation, providing negative ventilation into both spaces. Fugitive emissions from 241-AW Primary tanks or non-tank system connected spaces such as 241-AW-01C is not an anticipated or unanticipated source of ammonia emissions into the uncontrolled (outside of tank chemical vapor controlled; i.e., Exclusion Zone) worker occupied spaces of 241-AW Farm. It is highly unlikely that the PAM alarm was the result of ammonia emissions from fugitive emissions.

A review of the DFAS application, powered by SmartSite™, Weather Details dashboard and VMDS exhauster ammonia readings for the approximate time of the event indicate the cause of the PAM alarm is unlikely to be from Tank Farm Exhauster emissions. Ammonia concentrations at engineered emission points were insufficient to allow for the possibility of notable concentrations at the ground receptor. And weather conditions presented low likelihood for ground-plume interaction.

See IHEI-00008 for information related to event initiating PAM functionality.

Event initiation to response action initiation time was hindered by delays in the reporting process. Discussion with affected and associated employees indicated that affected personnel performed initial actions as per procedure direction (TFC-ESHQ-IH-C-78 4.5): Upon recognition of initial alarm indication nearby employees checked their associated PAMs, which indicated null readings. Employees left the area (exited AW Farm). However instead of notifying the CSM the employees notified their supervisor (PO ADM). Instead of contacting the CSM the PO ADM contacted an area team assigned IHT for unspecified reasons. The IHT then contacted their assigned manager to perform notification. It was not until the PO IH manager reinforced the expectation of notification to the CSM that the ADM performed the expected notification process. This error in communication resulted in delay of initiation of response actions by approximately 30 minutes.

Recommendations:

Prompt notification and resulting response actions are critical for protecting worker safety and health when indication of changing conditions is discovered. Delay in response must be minimized whenever possible to ensure maximum effectiveness. Familiarity with and expectation to perform actions as required by TFC-ESHQ-IH-C-78 needs to be reinforced for not just PAM users, but also First Line Management and Management that assign and oversee job assignments requiring PAM use. Specific recommendations are as follows:

- Re communicate section 4.5 of TFC-ESHQ-IH-C-78 to all Tank Farm workers, First Line Management of Tank Farm Workers, and managers who oversee and assign work requiring the use of PAMs.
- Assign re-occurring required reading of TFC-ESHQ-IH-C-78 for support personnel who enter the Tank Farms infrequently or oversee and assign work requiring the use of PAMs.

Other:

N/A

Associated Documents:

iCAS Number: N/A

EIR Number: EIR-2026-029

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*

INDUSTRIAL HYGIENE EQUIPMENT INVESTIGATION (IHEI)

Event Title: AOP-015 AW Farm	IHEI Number:00008 IHIR Number:00133

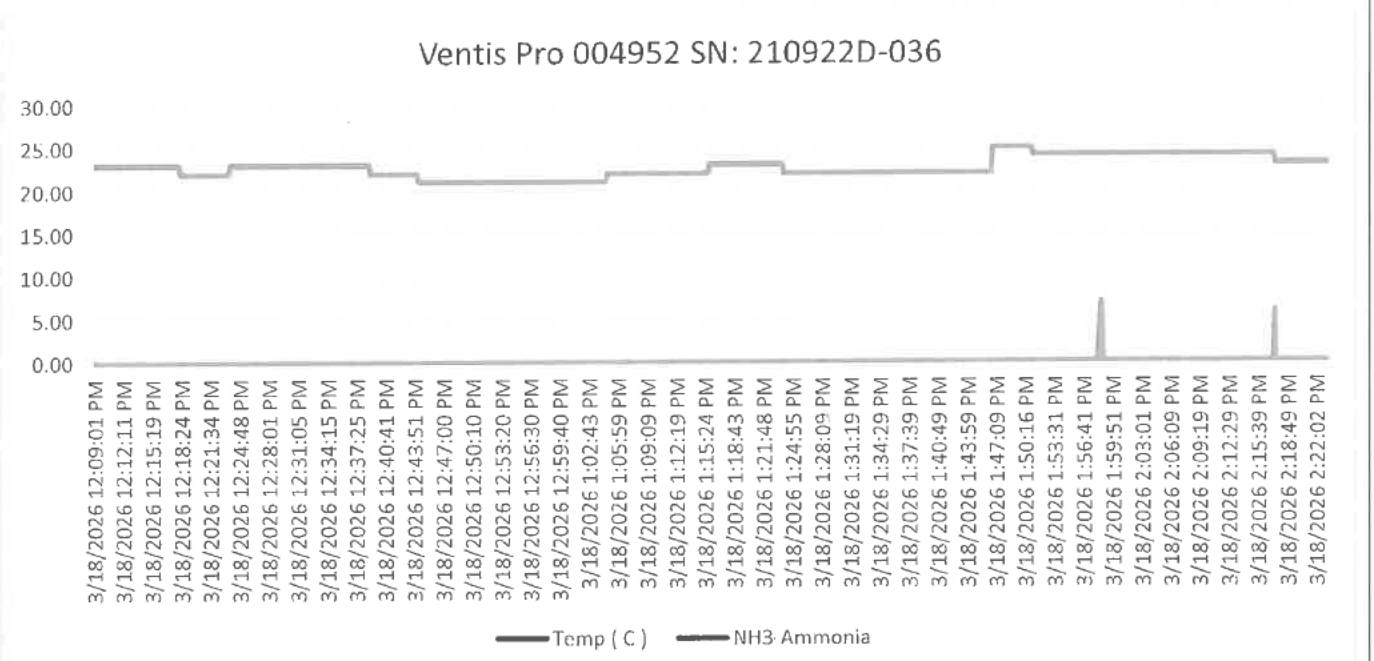
Date: 3/18/2026	Time: 2:17 PM	Location: AW Farm

Device Information:

WRPS ID: 004952 SN: 210922D-036

Last Calibration: 2/23/2026 Result: Passed	Last Bump: 3/17/2026 Result: Passed

Event Data Log:



Peak readings:

Time	Duration	Peak Reading	Location
3/18/2026 1:58:30 PM	00:00:12	14	
3/18/2026 2:17:24 PM	00:00:05	13	AW-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.

INDUSTRIAL HYGIENE EQUIPMENT INVESTIGATION (IHEI) (Continued)

Recommendations/Conclusions:

The instrument successfully passed its most recent calibration on February 23,2026. Additionally, the instrument passed its weekly bump test on March 17,2026.

An examination of the instrument's alarm log identified two distinct alarm events. The first alarm was triggered at 1:58 PM, registering a peak gas concentration of 14 parts per million (ppm). This elevated level was sustained for approximately twelve seconds before a rapid decline to 0 ppm was observed. The second alarm occurred at 2:17 PM, with the instrument detecting a peak concentration of 13 ppm that persisted for five seconds prior to returning to baseline.

The operator verbally informed Industrial Hygiene that the sensor may have been inadvertently obstructed as they reported wearing the instrument clipped to their pocket inlet facing in. The operator additionally noted that two other workers close in proximity and equipped with PAMs (Personal Air Monitoring) devices, did not register any detectable gas concentrations or alarm events on their instrument during the same timeframe.

A detailed physical evaluation of the Ventis Pro 5 detector 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 by obstructing the inlet or altering ambient temperature were unsuccessful.

As a precautionary measure, it is recommended that the instrument be sent to Industrial Scientific for service and inspection.

Other: NA

Associated Reports:

iCAS Number: NA

PAM AIC Number: 004952 26-3-18

Industrial Hygienist Equipment SME/Program Owner:

[redacted]

Print First and Last Name

[redacted]

Signature / Date

Industrial Hygiene Level 3 Manager

[redacted]

Print First and Last Name

[redacted]

Signature / Date

ODOR/VAPOR RESPONSE CARD

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

- Date and time of event: 3-18-26 1400
- Check Applicable:
  ☐ Odor ☐ Ammonia Alarm *(6 ppm)* ☑ Ammonia Alarm *(12 ppm)* ☐ Alarm *(other - describe)*:
- Your name and the work you were performing: [redacted] Admin lock Quarterly
- Other Work Underway? Describe:
  N/A
- Location of event *(mark area on map and wind direction)*:
  AW 101 Pit
- 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)*: 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

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

- Date and time of event: 03/18/26 1400
- Check Applicable:
  ☐ Odor ☐ Ammonia Alarm *(6 ppm)* ☐ Ammonia Alarm *(12 ppm)* ☒ Alarm *(other - describe)*:
- Your name and the work you were performing:
  [redacted] Admin. lock quarterlys
- Other Work Underway? Describe:
  N/A
- Location of event *(mark area on map and wind direction)*:
  AW 101 Pit
- 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)*: 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.

[redacted]

ODOR/VAPOR RESPONSE CARD

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

- Date and time of event: 3-18-24 1400
- Check Applicable:
  ☐ Odor ☐ Ammonia Alarm *(6 ppm)* ☐ Ammonia Alarm *(12 ppm)* ☑ Alarm *(other - describe)*:
- Your name and the work you were performing: [redacted] ADMIN lock Quarterly Rounds
- Other Work Underway? Describe: N/A
- Location of event *(mark area on map and wind direction)*: AW 101 PIT
- Name(s) of others in or near the affected area: [redacted]
- 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)*:

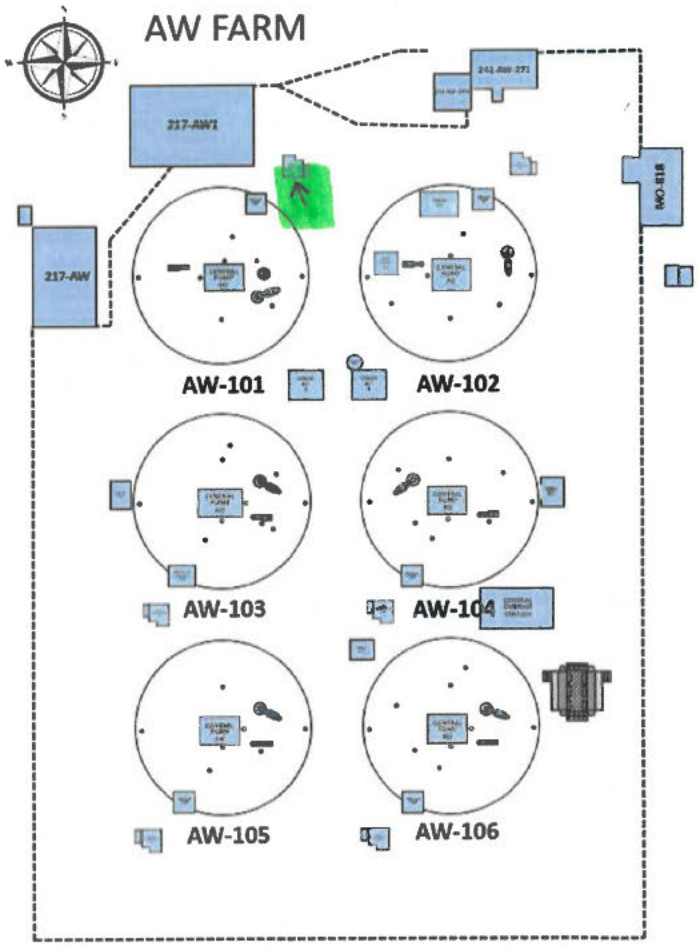
2. Provide this completed card *(Page 1 & 2)* to Supervisor, Industrial Hygiene, your Union Safety Representative or the CSM.
If received by Supervisor/IH/U-SR, Supervisor/IH/U-SR will ensure card is provided to the CSM.

ODOR/VAPOR RESPONSE CARD - 241 AW 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.



[redacted]