Hanford Tank Waste Operations & Closure (H2C)

EVENT REPORT FORM

1. Project: Retrieval and Closure Construction **2. Report Date:** 02/25/2026

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

4. Investigation Report Number *(if applicable)*: EIR-2026-023 **5. Revision:** 0

6. Responsible Manager: [redacted]

7. Event Investigator: [redacted]

8. Area/Building/Location: 200 West / S-Tank Farm / Near Single Shell Tank (SST) 241-S-103

9. Date and Approximate Time of Event: **Date:** 02/05/2026 **Time: *(military)*** 1254 hours

10. Associated Action Request (AR) Number: ITDC-AR-2026-1006

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 1254 hours on 02/05/2026, a worker's Ventis Pro 5 Personal Ammonia Monitor (PAM) alarmed and indicated 12 ppm ammonia concentration inside the 241-S Farm near SST S-103 while crane activities were underway near SST S-102. The PAM of another worker present in the immediate area did not alarm. Workers were wearing full face respiratory protection with chemical cartridges. All workers reported no odors were encountered and no symptoms were experienced. Workers declined precautionary medical surveillance.

14. What *Should Have* Happened?

The PAM should not have triggered an alarm [indicating ammonia concentration ≥ 12 parts per million (ppm)] unless ammonia was present.

15. Key Facts from Investigation:

At the time of the initiating event, both workers in the affected area were each wearing a PAM. These workers were standing-by in the northwest corner of S-Farm while pipefitters worked to prepare rigging for crane operations to remove legacy equipment near tank S-102. The affected worker was a Laborer who was standing-by near tank S-103 while crane activities [Refer to WO 1222626, *241 S 102 Exhauster Removal (Mobile Crane Hazard Awareness) (PFAS User)]* were underway near Tank S-102. The other worker located near the affected worker checked and verified their PAM did not alarm.

Access to S-Tank Farm was restricted at 1313 hours for entry to TF-AOP-015, *Response to Personal Ammonia Monitor Alarm,* and workers were directed to exit the farm. Industrial Hygiene Event Investigation Report #IHIR-00131 describes Industrial Hygiene Technician (IHT) monitoring of the area. The conclusion of the report was "VMDS exhauster ammonia readings for the approximate time of the Event were below levels that could result in ground level exposures above Alarm Levels". IHT monitoring of potential sources "did not indicate further action was necessary to protect worker safety and health". The S-Tank Farm area was released at 1508 hours from restricted access and work was allowed to continue.

An Industrial Hygiene assessment to evaluate the operational performance of the affected worker's Ventis Pro 5 (PAM) included a 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. The instrument had successfully passed its most recent calibration on January 26, 2026, and its weekly bump test on February 3, 2026. A physical inspection of the Ventis Pro 5 (PAM) was performed to identify physical damage, wear, or configuration anomalies that could have influenced the device's performance. No visible indicators of damage or improper configuration were detected during this process. The alarm could not be recreated during the physical evaluation by covering the inlet or by changing the temperature of the environment. It was recommended by the IH Technical Specialist that the instrument be sent to the manufacturer (Industrial Scientific) for service and inspection [Refer to Industrial Hygiene Equipment Investigation - IHEI Number: 00007].

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

Access was restricted to S-Farm for approximately 2 hours for which entry authorization required by the Central Shift Manager (CSM). No impacts to facility safety status, operational capabilities, nor facility reliability occurred, however an approximate two-hour delay of field work occurred. Work was allowed to resume after restricted access was lifted.

An action is being taken by Industrial Hygiene to send the PAM to the manufacturer for service and inspection. This action will be documented and managed in Condition Report (CR) ITDC-CR-2026-1006.

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)

Event Causal Matrix						
19. Timeline/Facts	**20. Issues/Problems/ Gaps**	**21. Causes *(Why?)***	**22. Safe Stable/Immediate Actions**	**23. Extent of Condition**	**24. Short Term Actions**	**25. Corrective/Sustaining Actions**
N/A	N/A	N/A	N/A	N/A	N/A	N/A

26. Signatures

Prepared By: *(Event Investigator)*

[redacted]

[redacted]

[redacted]

Signature / Date

Responsible Manager Approval:

[redacted]

Name (First, Middle Initial, Last)

[redacted]

Signature / Date

CAS Manager Approval:

[redacted]

Name (First, Middle Initial, Last)

[redacted]

Signature / Date

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR)

Event Title:	IHIR Number:
TF-AOP-015 Response S-Farm	**IHIR-00131**
	IHEI Number: **IHEI-00007**

Date:	Time:	Location:
02/05/2026	1254	241-S-Farm

Event Summary and Timeline:

Event Summary:

At approximately 1254 on 02/05/2026, one Personal Ammonia Monitor (PAM) alarmed and indicated 12 ppm ammonia inside the 241-S Farm. One other worker was present in the immediate area at the time of the PAM alarm. The Affected Worker was a laborer who was standing by near S-103 while crane activities were underway near S-102. The nearby worker checked and verified their PAM did not alarm. All workers reported that no odors were encountered, and no symptoms were experienced. Workers declined precautionary medical surveillance.

Field Response Timeline:

1254 IH call from IHT that PAM alarm of 12 ppm occurred in S-Farm during crane activities.

1313 Shift Office Event Notification (SOEN): "Entering TF-AOP-015 Response to Personal Ammonia Monitor Alarm for a Ventis Pro alarm at 12ppm ammonia. Access is restricted to S Farm unless authorized by Shift Manager. [Central Shift Manager (CSM)]"

1316 PO IH 1 arrives at Central Shift Office (CSO)

1317 2 RWO IH arrive at CSO and brief CSM and PO IH on TF-AOP-015:
- Worker offered medical and declined
- 1 laborer PAM Alarmed at 12 ppm (Affected Worker 1)
- Occurred near operating crane
- Inside S-Farm (NW corner, near S-103)
- Affected PAM was isolated and routed to be uploaded

1320 CSM checks DFAS for mixing height of SY-Farm exhausters:
- 500 ft

1325 PO IH requests PO IHT supervisor to prepare MultiRAE for Ammonia and VOCs for response actions.

1327 PO IHT enroute to CSO

1330 RWO IH Briefing IHTs for response actions
- RPF-TF-AOP-015
- IHSP-TI-MULTI-TF-AOP-015
- Location of initiating event

1332 CSM requests RWP from RadCon
- RWP: TF-102 task 1

1341 CSM requests Event Investigator ID from Issues Management

1343 PO Level 3 IH Manager contacted ESHQ Level 1 ESHQ, Deputy ESHQ, and Level 2 IH manager to give details of response actions.

1352 IHIR number requested from ^IH Records

1435 DOE IH representative visited shift office and PO Level 3 Manager briefed details of the event

1438 Field response team relays to CSM that readings are at or below background level

1448 Responding RWO IH briefs shift office on field response

1450 PO Level 3 Manager briefed CSM on field response

NOTE: Field Response Timeline continued on next page.

Event Summary and Timeline:

Field Response Timeline (continued):

1501 PO IHT reports to CSM that the post-use function check was satisfactory
1502 Response actions for TF-AOP-015 are complete. CSM issuing SOEN to exit TF-AOP-015 restore access to S Farm
1507
- Shift Office Event Notification (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. CSM"

Field Response Timeline Acronyms:

%	Percent	IH	Industrial Hygienist/Industrial Hygiene
°F	degrees Fahrenheit	IHSP	Industrial Hygiene Sample Plan
AL	Action Limit	IHT	Industrial Hygiene Technician
AOP	Abnormal Operating Procedure	mph	miles per hour
CA	Contamination Area	OE	Operations Engineer
CSM	Central Shift Manager	OVRC	Odor/Vapor Response Card
CSO	Central Shift Office	PAM	Personal Ammonia Monitor
DOE	Department of Energy	PO	Production Operations
DRI	direct reading instrument	ppm	parts per million
ESH&Q	Environmental, Safety, Health, & Quality	RBA	Radiological Buffer Area
FWS	Field Work Supervisor	SOEN	Shift Office Event Notification

Sampling/Monitoring Results:

Direct Reading Instrument Monitoring Results- Field Response:

Response Monitoring performed in and around Affected Area (#26-00682):

- Comments by Responding IHT- "A ventis worn by a worker in the Northwest corner of the farm alarmed at 12ppm. Workers exited the farm and farm access was restricted. IHT performed continuous monitoring with DRI for VOC's and NH3 within S farm affected area per direction of the central shift manager and IH. Area readings were at or below back ground levels. Emission points in the area were also monitored, source readings at the breather filter of S-103 & S-102 were taken with a wand and readings were at or below back ground levels."

  Peak Readings During Response:

Location	Ammonia
General Area Northwest Corner (Initiating Event Location)	< 1 ppm
S-103 Breather Filter	< 1 ppm
S-102 Breather Filter	< 1 ppm

NOTE: Sampling/Monitoring Results continued on next page.

Sampling/Monitoring Results:

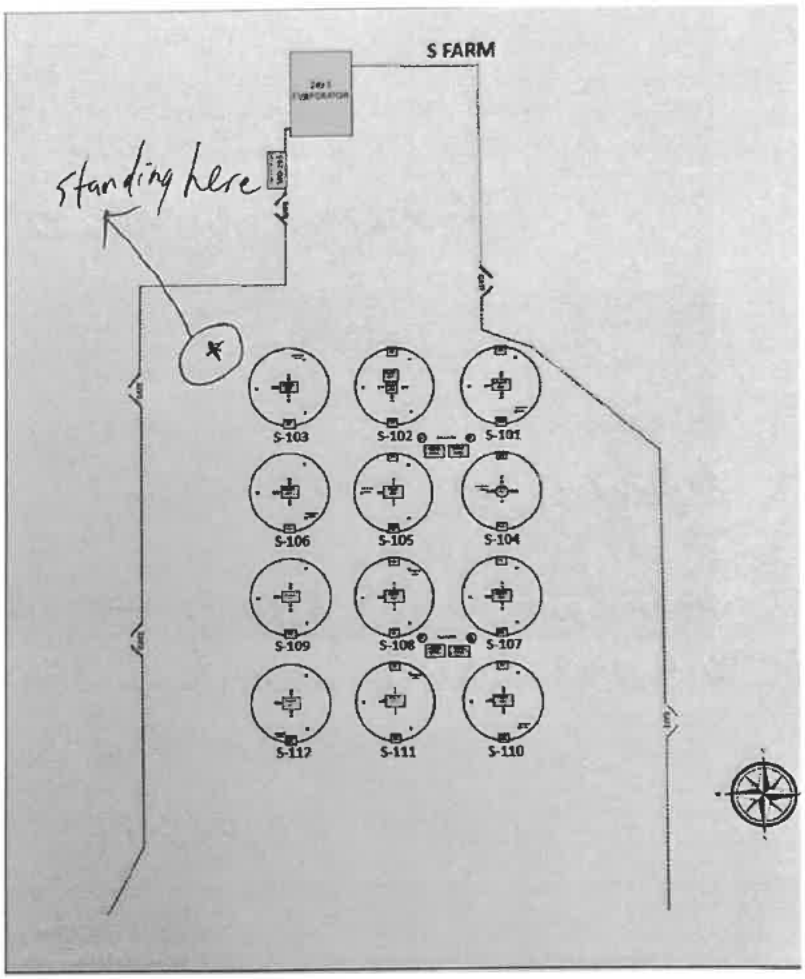


Figure 1. Affected Worker's Map Detailing Location of Initiating Event (source: Odor Vapor Response Card)

NOTE: Sampling/Monitoring Results continued on next page.

Sampling/Monitoring Results:

Figure 2. IHTs Monitoring Area of Initiating Event in Northwest corner of S-Farm

Figure 3. IHTs Monitoring Near S-103 Breather Filter

NOTE: Sampling/Monitoring Results continued on next page.

Sampling/Monitoring Results:

Direct Reading Instrument Monitoring Results- PAMs:

Event Initiating PAM #005862 (Ventis Pro5- Serial No. 220635F-066, Sensor 22061HG025, Gas Type Ammonia)

DS2/DSX Local Server - Industrial Scientific Corporation 2/10/2026 8:57:58 AM - Alarm Events Report

Instrument 220635F-066
Start Date 1/6/2026
End Date 2/5/2026

Sensor	Gas Type				
22061HG025	Ammonia				
	Time	Duration	Peak Reading	Alarm Low	Alarm High
	2/5/2026 12:49:50 PM	00:00:08	12	6	12
	1/27/2026 12:19:38 PM	00:00:01	7	6	12
	1/27/2026 8:57:52 AM	00:00:04	6	6	12

Figure 4. Event Initiating PAM #005862 Alarm Events Report 01/06/2026 to 02/05/2026

At approximately 12:49:50 PM, the 10 second average reading was 6 ppm with the peak reading of 12 ppm, leading to the Initiating Event. Referring to Figure 4, the peak reading of 12 ppm does not appear in Datalog Graph (refer to Figure 5), which captures 10 second averages. Following the Initiating Event, readings (10 second average) were maintained at 0 ppm.

Type : Ventis Pro5 Multi-Gas Monitor
Serial Number : [redacted]
Part Number : VP5-06001000111
Session : 2/5/2026 9:21:19 AM
User : [redacted]

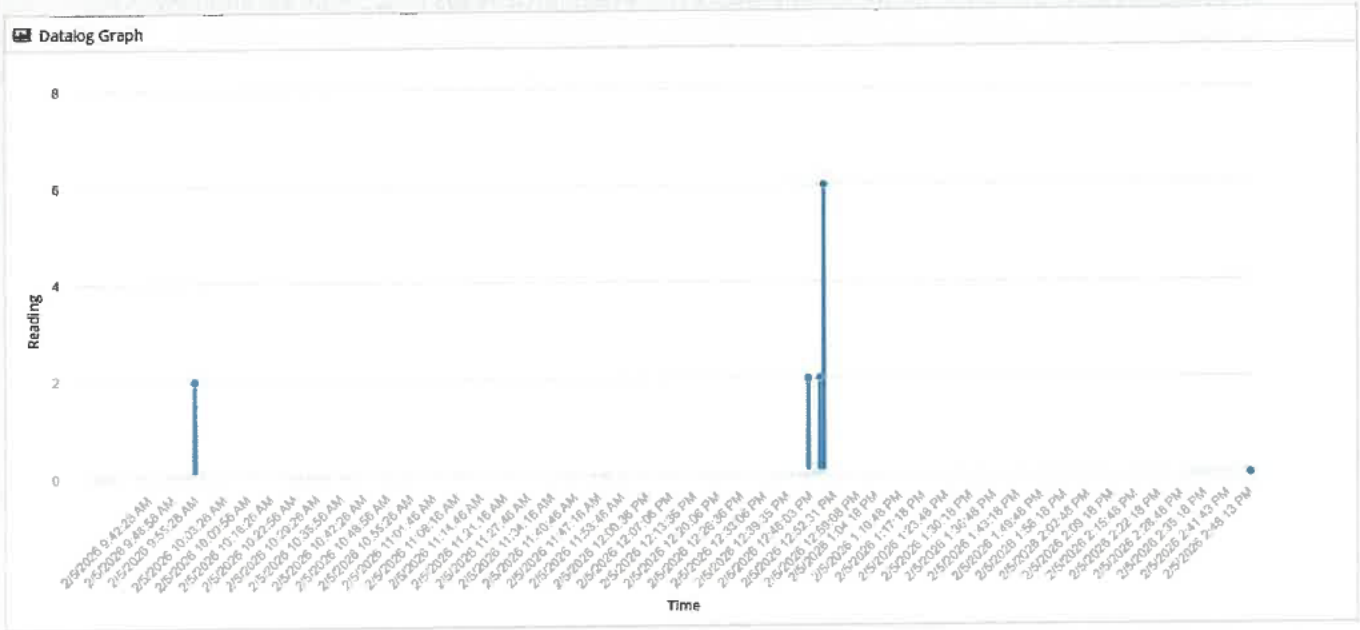


Figure 5. Event Initiating PAM #005862 Datalog Graph 02/05/2026 (10 Second Average)

SWIHD References:

Event Response SWIHD DRI Survey:

- #26-00682 "TF-AOP-015 Response in S Farm"

Additional Information:

Response Monitoring:

The PAM is utilized during work activities where Tank Vapor exposure is not anticipated [Tank Vapor Work Category (WC) 1 & WC-2]. To enhance the safety of Hanford Tank Farm workers, IH has established a Response Limit (RL) for use with PAMs, set at 6 ppm ammonia. The RL is a conservative and timely indicator of potentially changing conditions in Tank Farm gas/vapor concentrations (e.g., fugitive emission points, exhauster plume to ground interaction).

At the time of the Initiating Event, both workers in the affected area were wearing a PAM. These workers were standing-by in the northwest corner of the farm while pipefitters worked to prepare rigging for crane operations to remove legacy equipment near S-102.

During the TF-AOP-015 response actions, monitoring for Tank Waste Chemical Vapors was performed:

> Ammonia is used as a sentinel Tank Waste Chemical Vapor for chemicals of potential concern (COPC). Each Hanford production process had different feedstock chemicals and generated different waste streams. Hanford production processes were also separated temporally, with different processes being performed at different times in the history of Hanford production (1943 – 1986). Some chemicals are common to all processes/waste streams (e.g., nitric acid), while others are specific to particular processes/waste streams. Some in-tank waste treatment processes (e.g., neutralization and de-nitrification) used the same chemical feed stocks (e.g., sodium hydroxide solution) in most, if not all Tank Farms. The chemistry and radiochemistry of these compounds result in waste stream similarities across all tank farms. Because nitric acid was common to nearly all processes that generated tank waste, and the most common result of those processes was reduction of nitrate ion to ammonia during the dissolution (oxidation) of irradiated fuel, ammonia is the most common COPC and is found in all tanks. It is logical to choose ammonia for the sentinel as it is a byproduct of all production processes and found in all tanks.
>
> Therefore, when monitoring for Tank Waste Chemical Vapors/COPCs, DRI equipped with an ammonia sensor is utilized at a minimum. Refer to TOC-IH-59014 for more information.

Response Monitoring References:

- WRPS (2024). TOC-IH-59014. *Tank Waste Chemical Vapor: Evaluation and Management Strategy.*

NOTE: Additional Information continued on next page.

Additional Information:

Meteorological Conditions:

Meteorological conditions affect the dispersion of chemical contaminants in the atmosphere. The term dispersion is used to describe the evolution of the chemical contaminant from the point of origin through the atmosphere by way of dispersion. Essentially, how the contaminant is transported by the wind, perpendicular to the wind's direction, both vertically and horizontally. The aspects of meteorological variables that affect dispersion include wind speed, wind direction, the atmospheric stability (e.g., turbulence), and the atmosphere mixing height (Casal, 2008).

Wind is the natural motion of air, influenced by the atmospheric pressure and the temperature gradient of the ground. The concentrations of contaminants in a plume are inversely proportional to the wind speed (Casal, 2008).

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) (Cushman-Roisin, 2012). 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 on the other hand, has low turbulence, positive vertical temperature (temperature increases with height), little fluctuation in the wind direction, and limited solar radiation (Casal, 2008). The National Oceanic and Atmospheric Administration (NOAA) Pasquill stability classes are denoted by seven letters ranging from A (extremely unstable conditions) to G (extremely stable conditions) (NOAA, n.d.).

The atmospheric mixing height is the height above the ground level (surface) throughout which a contaminant is dispersed. During times of temperature inversion (typically nighttime with clear skies), the mixing height goes to zero and the contaminant dispersion is minimal. At Hanford, waste disturbing activities conducted during a capping inversion (typical of sunny, highly unstable morning conditions with stable conditions remaining aloft) or with highly stable to unstable, low wind conditions (nighttime including surface inversion conditions), there exists the potential for ammonia, nitrous oxide, furan, formaldehyde, and Nitrosamines group to reach ground at or above the Occupational Exposure Limit (OEL) concentration value (dependent upon the Tank Farm). It should be noted that a capping inversion is typically a brief occurrence that exists approximately 2% of the time at the Hanford Site (WRPS, 2024).

Meteorological Conditions 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
- National Oceanic and Atmospheric Administration (n.d.). *Air Resource Laboratory Ready Tools: Pasquill Stability Classes.* Retrieved from https://www.ready.noaa.gov/READYpgclass.php
- WRPS (2024). TOC-IH-59014. *Tank Waste Chemical Vapor: Evaluation and Management Strategy.*

NOTE: Additional Information continued on next page.

Additional Information:

Meteorological Conditions- Approximate Time of the Initiating Event (02/05/2026 @ 1249):

Review of the DFAS application, powered by SmartSite™, Weather Details dashboard for the approximate time of the Event:

- Wind Speed: 4.1 mph (15-minute average)
- Wind Direction: 216° (out of Southwest)
- Mixing Height: 500 feet above grade
- Stability Class: A (very unstable conditions)

Refer to Figures 6-.

Figure 6. 200-West Area (with 241-SY Farm projected plume model) at 1248 02/05/2026 from Data Fusion and Advisory System (DFAS) application, powered by SmartSite™ (Approximate Time of Initiating Event).

NOTE: Additional Information continued on next page.

Additional Information:

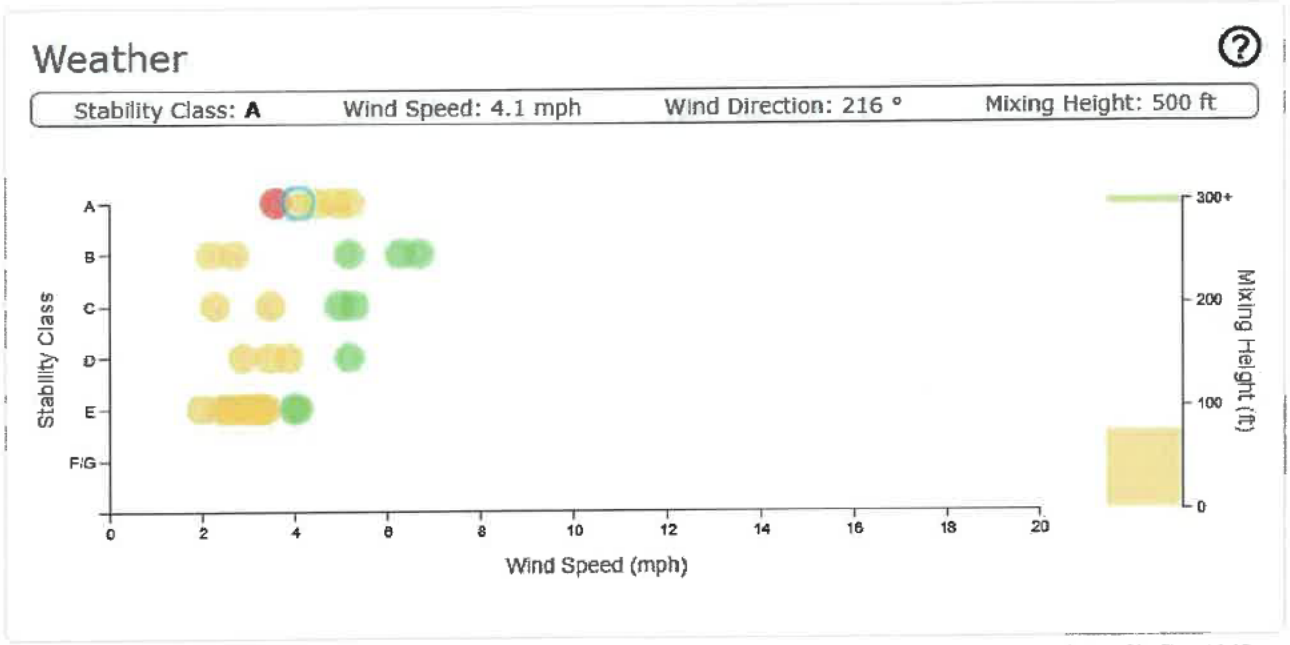


Figure 7. 241-SY Farm Weather Data from Data Fusion and Advisory System (DFAS) application, powered by SmartSite™ at 1245 02/05/2026 (Approximate Time of Initiating Event).

Meteorological information from the Hanford Weather Station for Station #19 on 02/05/2026 @ 1249:

- Temperature: 46°F
- Relative Humidity: 76%
- Wind Speed: 4 mph
- Wind Direction: North Northwest
- Barometric Pressure: 29.59 inches of mercury and falling
- Mixing Height: 600 meters
- Stability Class: A

Tank Farm Exhauster Concentrations:

The ventilation exhaust system (exhauster) plume behavior is dependent on meteorological conditions. Exhauster plumes may be bent over (stability classes A, B, C, and D) or vertical (stability classes E, F, and G). The bent over plumes are found during unstable and neutral states are further characterized by their pattern: fanning, fumigation, coning, looping, and lofting (TOC-IH-59014 Section 3.1.2.1). The most probable meteorological conditions for a ventilation exhaust system touchdown to occur is during a capping inversion. For a ventilation exhaust system "touchdown" to result in ground level exposures above action limits, the stack concentration also needs to exceed the High High Alarm limit.

Hanford Tank Waste Operations & Closure (H2C) employs a Vapor Monitoring and Detection System (VMDS) to enhance worker protection from chemical vapor compound emissions from the Hanford Site tank farms (VMDS Overview). The objective of the VMDS is to provide continuous, near real-time measurements of tank farm vapors, meteorological conditions, and the ability to assess this information for a worker protective response. The VMDS consists of chemical vapor sensors, meteorological sensors, vapor sampling technologies, and data management and evaluation software.

NOTE: Additional Information continued on next page.

Additional Information:

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		
241-AY/AZ	702AZ		
241-SY	Primary	310 ppm	620 ppm

200-East VMDS Exhauster Ammonia Readings on 02/05/2026 @ 1249 (Figure 8):

Tank Farm	Exhauster	Maximum Value
241-SY	Primary	3.2019 ppm

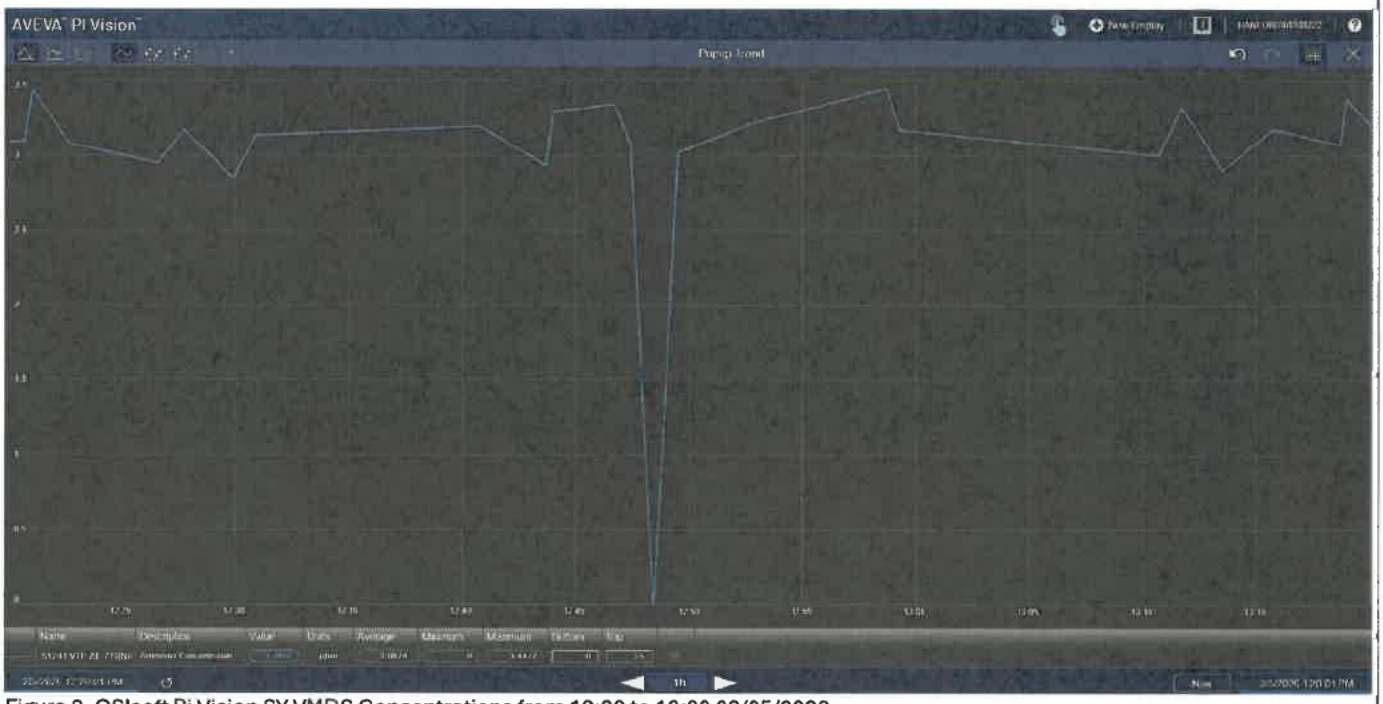


Figure 8. OSIsoft Pi Vision SY VMDS Concentrations from 12:20 to 13:20 02/05/2026.

NOTE: Additional Information continued on next page.

Additional Information:

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 when VMDS is unavailable. Additionally, monitoring is performed in accordance with ARP-T-041-00002 to react to specific alarms. The VMDS alternate monitoring readings are obtained in accordance with TF-OPS-IHT-037.

Tank Farm Exhauster Concentration References:

- AVEVA™ PI Vision™. VMDS Overview.
- H2C (2025). ARP-T-041-00002. *Tank Farm Alarm Response Procedure.*
- H2C (2025). TF-OPS-IHT-037. IHT Ammonia Monitoring on Exhausters.
- SmartSite™. Data Fusion & Advisory System. *Hanford Multi-Farm View.*
- WRPS (2019). Memo WRPS-1904672.1. *Interoffice Memorandum: Tank Farm Exhaust Stack Concentration Alarm/Action Levels for Ammonia.*
- WRPS (2021). TOC-IH-RPT-50042. *Ammonia Monitoring – Rate of Change of Tank Vapor Source Concentration and Monitoring Frequency.*
- WRPS (2024). TOC-IH-59014. *Tank Waste Chemical Vapors: Evaluation and Management Strategy.*

Additional Information Acronyms:

%	Percent	NOAA	National Oceanic and Atmospheric Administration
°	degrees	OEL	Occupational Exposure Limit
°F	degrees Fahrenheit	PAM	Personal Ammonia Monitor
COPC	Chemicals of Potential Concern	ppm	parts per million
DFAS	Data Fusion & Advisory System	QRA	Quantitative Risk Assessment
DRI	direct reading instrument	RL	Response Limit
H2C	Hanford Tank Waste Operations & Closure	VMDS	Vapor Monitoring & Detection System
IH	Industrial Hygiene	WC	Tank Vapor Work Category
mph	miles per hour	WRPS	Washington River Protection Solutions

Recommendations/Conclusions:

Recommendations:

An investigation of the event initiating PAM from the affected worker was performed to evaluate the operational performance of the instrument and can be found on IHEI-00007. This assessment includes a review of the instrument's full span reserve, analysis of the alarm log and data log, examination of the calibration and bump test, as well as an inspection of the physical condition of the PAM. The recommendation by the Technical Specialist is to have the instrument sent to the manufacturer for service and inspection.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Recommendations/Conclusions:

Conclusions:

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 Personal Ammonia Monitor alarm is unlikely to be from Tank Farm Exhauster emissions. VMDS exhauster ammonia readings for the approximate time of the Event were below levels that could result in ground level exposures above ALs.

Hanford Tank Waste Operations & Closure (H2C) Industrial Hygiene Department has established a conservative, reasonable, and data-derived response limit of 6 ppm for Personal Ammonia Monitor concentrations associated with tank waste gases/vapors in the Hanford Tank Farms. The intent of this response level is to enhance the safety of Hanford Tank Farm workers by establishing a conservative and timely indicator of potential changing conditions in Tank Farm gas/vapor conditions, at which prudent and protective investigative measures may be taken.

During response actions, DRI monitoring was performed in the northwest corner of S-Farm where the initiating event occurred, near the breather filter at S-103 and S-102 and all readings were at or below background level. Additionally, extra time was spent searching for potential sources, pausing over nearby hatchway covers, valved out inlet filters, and around the crane that was in operation during the initiating event. Monitoring results did not indicate further action was necessary to protect worker safety and health. As a result, the area was released from restricted access and work was allowed to continue.

Others:

No symptoms were reported and all Affected Workers declined precautionary medical surveillance.

Associated Documents:

iCAS Number: N/A EIR Number: EIR-2026-023

Industrial Hygienist: [redacted]	[redacted]
Print First and Last Name	*Signature / Date*
Industrial Hygiene Level 3 Manager [redacted]	[redacted]
Print First and Last Name	*Signature / Date*
Industrial Hygiene Level 2 Manager: [redacted]	[redacted]
Print First and Last Name	*Signature / Date*

Washington River Protection Solutions

INDUSTRIAL HYGIENE EQUIPMENT INVESTIGATION (IHEI)

Event Title:	IHEI Number:00007
AOP-015 S Farm	IHIR Number:00131

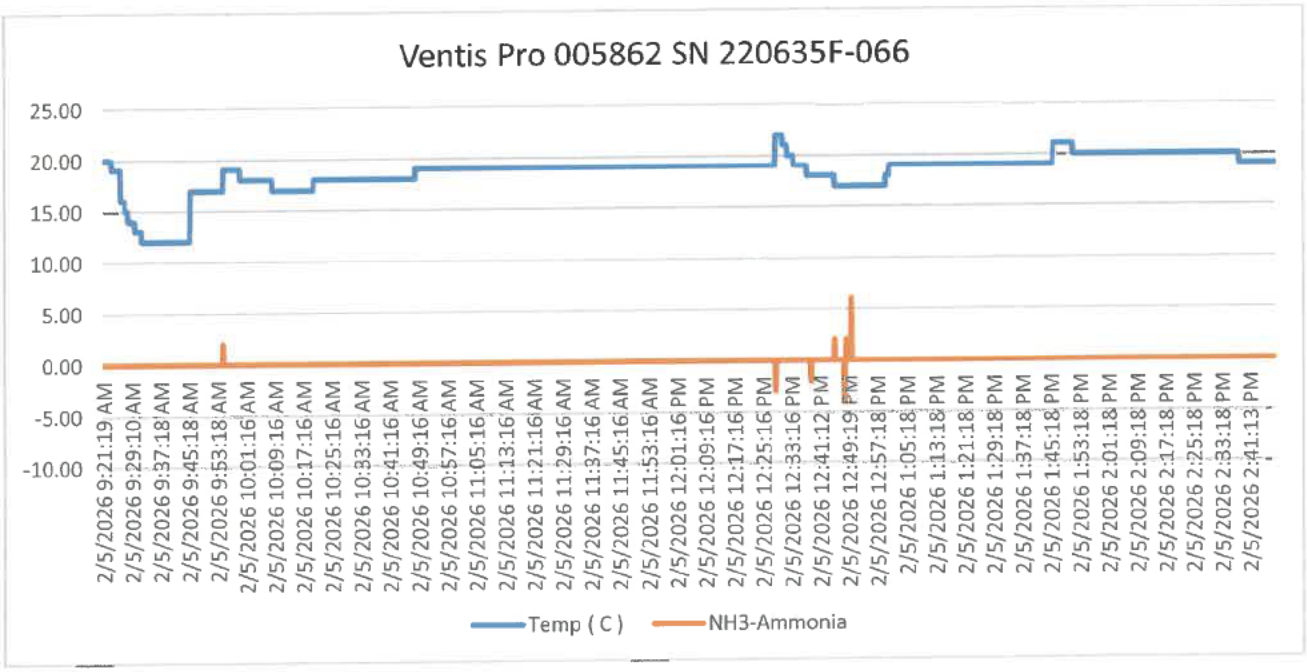
Date: 2/5/2026	Time: 12:49 PM	Location: S Farm

Device Information:

WRPS ID: 005862 SN: 220635F-066

Last Calibration:	Last Bump:
1/26/2026 Result: Passed	2/3/2026 Result: Passed

Event Data Log:



Peak readings:

Time	Duration	Peak Reading
2/5/2026 12:49:50 PM	00:00:08	12

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.

The instrument successfully passed its most recent calibration on January 26,2026. Additionally, the instrument passed its weekly bump test on February 3,2026.

Washington River Protection Solutions

INDUSTRIAL HYGIENE EQUIPMENT INVESTIGATION (IHEI) (Continued)

Recommendations/Conclusions:

The worker utilizing the instrument reported to the field IHT that the ventis alarmed while standing in proximity of an operating crane northwest of S-103 during non-intrusive work. The instrument inlet was not obstructed or covered while being worn. It was reported that the alarm occurred while standing shoulder to shoulder with another worker who reported their ventis reading at 0 ppm. The worker noted a reading on the screen of 12 ppm before exiting the farm and making notifications.

A review of the alarm log revealed one event. The instrument alarmed at 12:49 PM where a peak concentration of 12 ppm was recorded. This elevated reading remained steady for a duration of eight seconds before a rapid decrease to 0 ppm was observed.

To further investigate, a thorough physical inspection of the Ventis Pro 5 detector was performed. The inspection focused on identifying physical damage, wear, or configuration anomalies that could have influenced the device's performance. No visible indicators of damage or improper configuration were detected during this process. The alarm could not be recreated during the physical evaluation by covering the inlet or by changing the temperature of the environment.

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: 005862 26-02-05

Industrial Hygienist Equipment SME/Program Owner: [redacted]

Print First and Last Name *Signature / Date*

Industrial Hygiene Level 3 Manager [redacted]

Print First and Last Name *Signature / Date*

ODOR/VAPOR RESPONSE CARD - 241 S FARM

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

- Date and time of event: 2-5-26 1215PM
- Check Applicable:
  ☐ Odor ☐ Ammonia Alarm *(6 ppm)* ☒ Ammonia Alarm *(12 ppm)* ☐ Alarm *(other - describe)*:
- Your name and the work you were performing: [redacted] waiting for pipefitters to finish work to throw trash away
- Other Work Underway? Describe: pipefitters cutting steel frame while rigged with crane
- Location of event *(mark area on map and wind direction)*:
- Name(s) of others in or near the affected area: [redacted] vents reading -0 ppm next to me
- 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 intrusive activity
- 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.

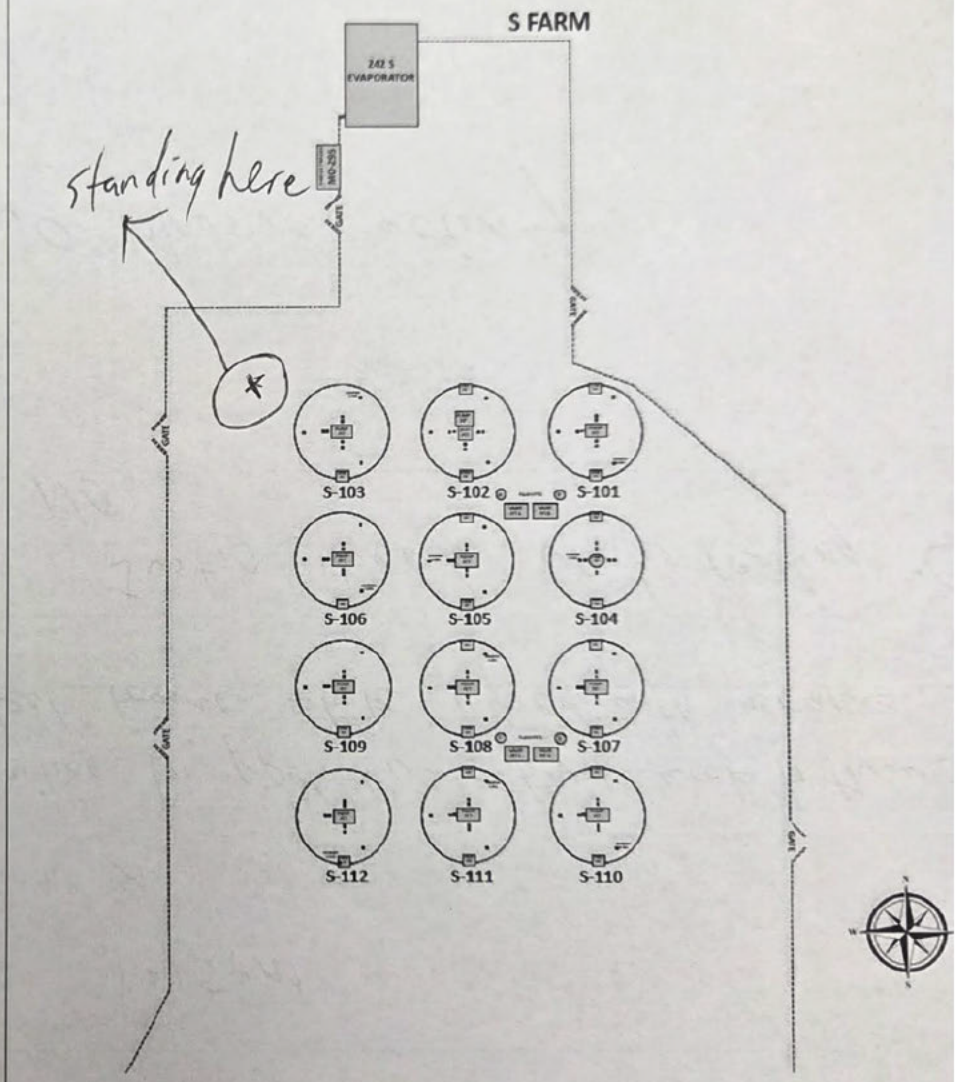
[redacted]

ODOR/VAPOR RESPONSE CARD - 241 S 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]