Hanford Tank Waste Operations & Closure (H2C)

EVENT REPORT FORM

1. Project: Retrieval and West Operations **2. Report Date:** 07/22/2026

3. Title: AOP-015 Response at POR-625

4. Investigation Report Number *(if applicable)*: EIR-2026-051 **5. Revision:** 0

6. Responsible Manager: [redacted]

7. Event Investigator: [redacted]

8. Area/Building/Location: 200E/A-Farm/POR-625

9. Date and Approximate Time of Event: Date: 07/07/2026 **Time: *(military)*** 1220 hours

10. Associated Action Request (AR) Number: ITDC-AR-2026-2284

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 1220 hours on 07/07/2026, two H2C Radiological Control Technicians (RCTs) were performing a transfer line walkdown in A-Farm when one of the RCT's Personal Ammonia Monitor (PAM) began to alarm at 6 Parts Per Million (PPM) near POR-625.

At the time of the alarm the RCTs were 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.

15. Key Facts from Investigation:

- At 1258 hours, the Central Shift Manager (CSM) entered TF-AOP-015, *Response to Personal Ammonia Monitor Alarm*, A-Farm was evacuated and access to A-Farm was restricted. At 1400 hours, Industrial Hygiene Technicians (IHTs) performed field response actions per IHSP-PROG-MULTI-TF-AOP-15, *Response to Personal Ammonia Monitor Alarm*. At 1429 hours, access was restored and TF-AOP-015 was exited for A-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-00142, *AOP-015 Response at POR625*: A review of Vapor Monitoring and Detection System (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.
- To summarize the conclusions of Industrial Hygiene Event Equipment Report IHIR-00012, *AOP-015 at 241-A Farm*: The PAM underwent a full performance review, including calibration records, bump tests, alarm logs, and a physical inspection. No physical defects or configuration issues were found, but quality control testing indicated the sensor may be unusually sensitive when the inlet is briefly covered. As a precautionary measure, the instrument should be sent

to Industrial Scientific for further evaluation. This action will be documented in ITDC-CR-2026-2284.

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

26. Signatures

Prepared By: *(Event Investigator)*

[redacted]

Name (First, Middle Initial, Last)

[redacted]

Signature / Date

Responsible Manager Approval:

[redacted]

Name (First, Middle Initial, Last)

CAS Manager Approval:

[redacted]

Name (First, Middle Initial, Last)

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR)

Event Title:	IHIR Number:
AOP-015 Response at POR625	IHIR-00142
	IHEI Number: IHEI-00012

Date:	Time:	Location:
07/07/2026	1220	A-Farm

Event Summary and Timeline:

Ventis Pro alarm of at least 6ppm ammonia was activated on one worker in A-farm. At the time of the event the worker was performing a transfer line walkdown, which is a Work Category 1 (WC1) activity. The worker notified the CSM of PAM alarm near POR625. AOP-015 response actions were taken as follows:

1258: DFLAW IH and PO IH L3 Manager arrive at CSO. Briefed by CSM: PAM alarm in A-farm near POR625
1300: PO IH L3 Manager calls RWO IH for event details
1304: Affected worker at CSO with PAM, filling out OVRC and Issues and Concerns Forms, declines Medical
1306: VMDS readings:

- POR518 N/A
- POR519 0.4ppm
- AN N/A
- AW N/A
- 702AZ N/A
- AP N/A

1314: PO IH L3 Manager confirms peak alarm of 6ppm at 1427
1317: Co-located worker at CSO filling out OVRC form
1320: SmartSite data obtained for 1225.

- Wind direction: 134°
- Wind speed: 4.8mph
- DFAS mixing height: 1000ft
- Stability Class: A (extremely unstable conditions)

1324: PO Shift IHTs and RWO IH
1327: PO IH briefs PO Shift IHTs
1330: PO Shift IHTs and RWO IH depart CSO to perform field response actions
1400: RWO IH returns to CSO, all readings less than detection; IHTs returning to lab to post-function test instrument
1409: DRI passes post-function test; all field response actions are complete
1429: Exited 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 POR625 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:
Review of the datalog reported that there were several alarms with a peak of 6ppm between 1219 and 1223. The last of the alarms registered as non-farm, indicating that the individual had exited the farm prior to the alarm.

SWIHD References:

26-04385 AOP-015 Field Response at POR625 (A Farm)

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Additional Information:

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

The nearest active exhauster in the area is found within A Farm. The Vapor Monitoring Detection System (VMDS) reports that at 1220 on 7/7/2026 stack readings for ammonia in POR519 were <1 ppm. The event occurred near the exhauster.

Review of DFAS at the approximate time of the PAM alarm event on 5/6/2026 @1415:

- Wind direction: 134°
- Wind speed: 4.8mph
- DFAS mixing height: 1000ft
- 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-0012.

Others:

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

Associated Documents:

iCAS Number: N/A

EIR Number: 2026-051

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*

ODOR/VAPOR RESPONSE CARD - 241 A FARM

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

- Date and time of event: 7-7-26 1226
- Check Applicable:
  ☐ Odor ☐ Ammonia Alarm *(6 ppm)* ☐ Ammonia Alarm *(12 ppm)* ☒ Alarm *(other - describe)*: near alarming vents p10
- Your name and the work you were performing: [redacted] A-106 RCT walkdown
- Other Work Underway? Describe: construction at A-183
- 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: N/A
  ☐ Sweet ☐ Sour ☐ Smoky ☐ Septic/Sewer ☐ Musty ☐ Rotten
  ☐ Metallic ☐ Onion ☐ Earthy ☐ Ammonia ☐ Citrus ☐ Solvent
  ☐ Other *(describe)*:
- 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.

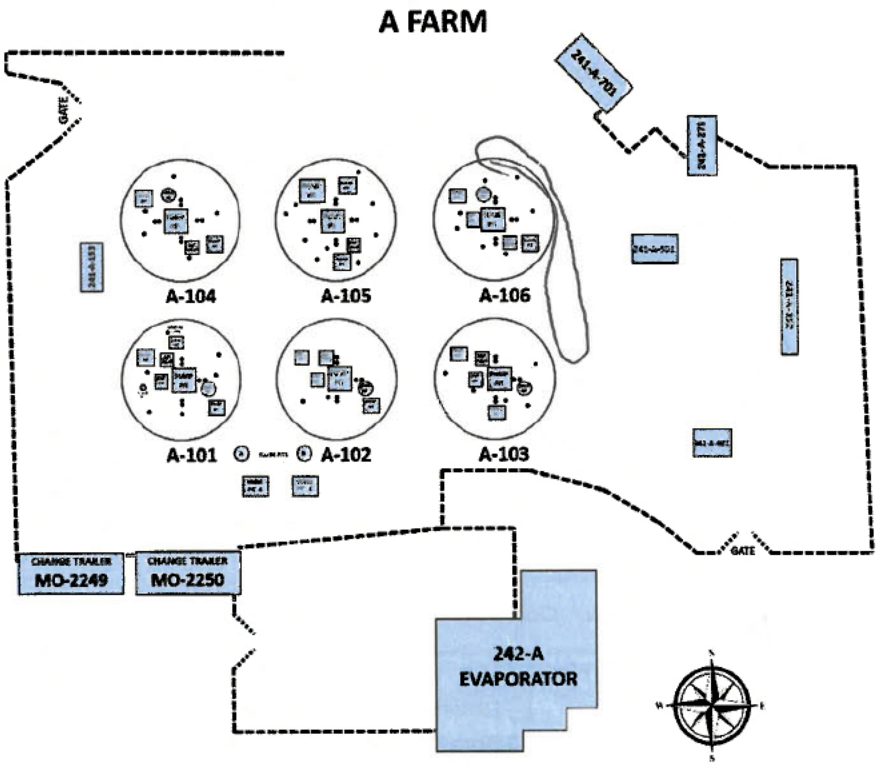
[redacted]

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;
   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]

ODOR/VAPOR RESPONSE CARD - 241 A FARM

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

- Date and time of event: 7-7-26 1220
- Check Applicable:
  - ☐ Odor ☒ Ammonia Alarm *(6 ppm)* ☐ Ammonia Alarm *(12 ppm)* ☐ Alarm *(other - describe)*:
- Your name and the work you were performing: [redacted] A-106 Retrieval Walkdown
- Other Work Underway? Describe: Construction & crane work nearby at A-103
- 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: N/A
  - ☐ Sweet ☐ Sour ☐ Smoky ☐ Septic/Sewer ☐ Musty ☐ Rotten
  - ☐ Metallic ☐ Onion ☐ Earthy ☐ Ammonia ☐ Citrus ☐ Solvent
  - ☐ Other *(describe)*:
- 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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[redacted]

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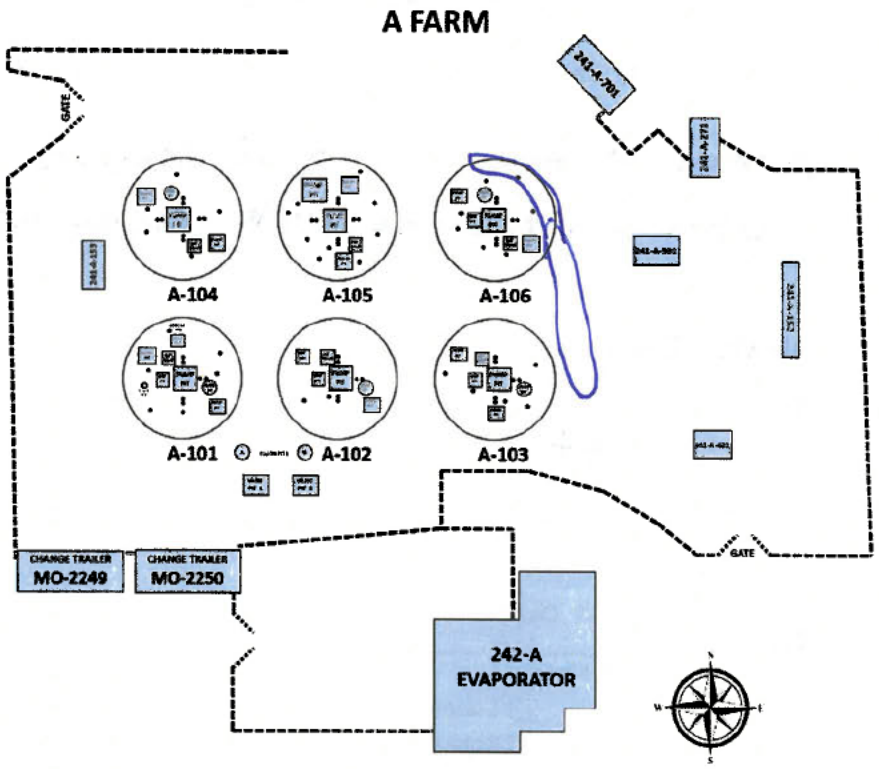

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