

Hanford Tank Waste Operations & Closure  
**EVENT REPORT FORM**

1. Project: Production Operations 2. Report Date: 11/10/2025  
3. Investigation Title: C-67 Response Outside of 217AY-1  
4. Investigation Report Number: EIR-2025-075  
5. Responsible Manager: ██████████  
6. Event Investigator: ██████████  
7. Area / Building / Location: 200E/ 217AY-1 Change Tent Parking Lot  
8. Date and Approximate Time of Event: Date: 09/25/2025 Time (military): 0955 hours  
9. Associated Action Request (AR) Number: ITDC-AR-2026-0023  
10. Associated Occurrence Report Number (if applicable): N/A  
11. Event Learning Meeting Held: Yes [ ] or No [x] Date: N/A Time (military): N/A

**12. Brief Summary of Event: What Happened?**

On 09/25/2025, at approximately 0955 hours, 1 Industrial Hygiene Technician (IHT) and 1 Operations Specialist reported smelling stronger than normal "burning plastic," "welding," and "BBQ" odors while exiting the 217AY-1 change tent parking lot.

At 1007 hours, the Central Shift Manager (CSM) initiated response per TF-OPS-OPER-C-67, *Response to Stronger than Normal Odors*. Access was restricted for the 217AY-1 Change Tent parking lot. The two workers reported no symptoms and declined a precautionary medical evaluation. The workers were not working in an area requiring the use of respiratory protection at the time the odor was encountered.

At approximately 1137 hours, IHTs responded to the area and performed a survey utilizing direct-reading instrumentation; readings were below action levels. Response results did not indicate further actions were necessary regarding worker safety and health occupational exposure limits. At approximately 1220 hours, response actions per TF-OPS-OPER-C-67, *Response to Stronger than Normal Odors*, were complete and access was restored to the area.

To summarize the conclusions of the Industrial Hygiene Event Investigation Report, IHIR-00125 "TFC-OPS-OPER-C-67 Outside of AY-1 Change Tent" reviewed of the DFAS application, weather details and chemical details dashboard for the reported time of the event, indicated the cause of the stronger than normal odor that was reported was unlikely to be from Tank Farm Exhauster emissions.

Potential odor sources identified in the investigation were two small gasoline generators, three light plant diesel generators, and a large generator operating up wind in the general area, with the light plant generators emitting the most noticeable odors. Additionally, around the time the odor was encountered, an offsite contractor was servicing and restarting the diesel light plants nearby. It was also reported that welding and grinding activities were conducted at the ATCO shop on the morning of the event. The most likely potential source of the odor was the light plants West of MO2254/MO2255.

In follow up with Industrial Hygiene, it was noted that the response team investigated the "BBQ" odors that were initially reported. The response team noted 3 BBQs were located in the vicinity of the odor event and that all were cold and had not been recently used. Additionally, there was no report of cooking or a "feed" that was received during the IHTs response. Industrial Hygiene does not believe that these BBQs were the source of the odor event.

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**13. What Should Have Happened?**

There should have been no stronger than normal odors encountered in the 217AY-1 change tent parking lot.

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

There was no impact to the facility.

**15. Problem Statements (Who, What, Where, When, Consequence/Impact):**

N/A

16. Facts/Timeline:	17. Issues/Gaps	18. Causes (Why?) (Include Cause Code)	19. Safe Stable/Immediate Actions	20. Extent of Condition	21. Short Term Action(s)	22. Corrective Action(s)
N/A	N/A	N/A	N/A	N/A	N/A	N/A

**23. Signatures**

**Prepared By:** *(Event Investigator)*

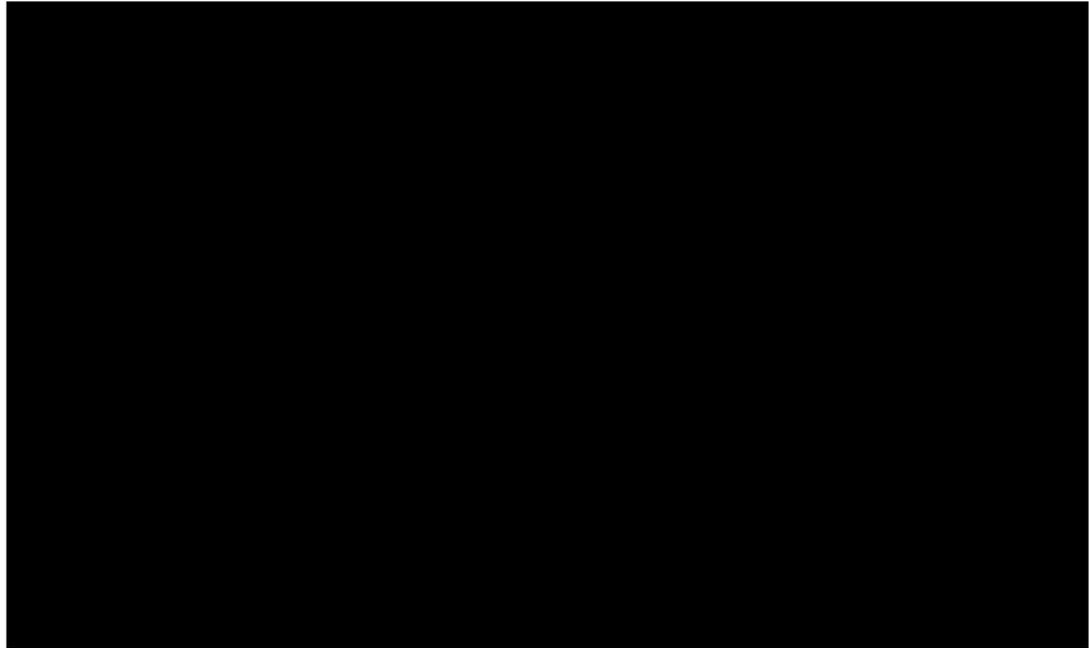
██████ ██████████  
 \_\_\_\_\_  
*Name (First, Middle Initial, Last)*

**Responsible Manager Approval:**

██████ ██████████  
 \_\_\_\_\_  
*Name (First, Middle Initial, Last)*

**CAS Manager Approval:**

██████ ██████████  
 \_\_\_\_\_  
*Name (First, Middle Initial, Last)*



*Signature / Date*

# INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR)

**Event Title:**

TFC-OPS-OPER-C-67 Outside of AY-1 Change Tent

**IHIR Number:**

IHIR-00125

**IHEI Number:**

N/A

**Date:**

9/25/2025

**Time:**

0955

**Location:**

West of 217AY-1 Change Tent

**Event Summary and Timeline:****Event Summary:**

- Around 0955 on 9/25/2025, two H2C employees encountered a "burning plastic", "welding", "BBQ" odor while outside 217AY-1 change tent, no signs of fire in the area. CSM was notified of the odor. No symptoms were experienced by the individuals and all declined precautionary medical surveillance.
- Access was restricted to the area and a response plan generated, results below.
- Sweeps were conducted in the area as well as across Buffalo Ave, upwind of where the odors were experienced to investigate for potential sources.
- Results of DRI General Area Monitoring:
  - Ammonia - less than detectable (<1 ppm)
  - Volatile Organic Compounds (10.6 eV PID) - <0.010 ppm
  - Volatile Organic Compounds (11.7 eV PID) - ~<0.010 ppm
  - Carbon Monoxide - Less than detectable (<1 ppm)
  - Nitric Oxide - <0.5 ppm
  - Nitrogen Dioxide - <0.1 ppm
  - Particulate NOR Total - 0.023 mg/m<sup>3</sup>
- At the time of the odor event, winds were coming from the west, ruling out tank farm vapors.
- Access to the area was restored at 1222.

**Field Response Timeline:**

0955 Workers notify Central Shift Manager (CSM) of burning plastic odors outside of 217AY-1 change tent

1007 Production Operation Industrial Hygienist (POIH) and Production Operations Industrial Hygiene Manager arrive at Central Shift Office (CSO)

1009 POIH advises that responding Industrial Hygiene Technicians (IHT) prepare Direct Reading Instruments (DRI) with 10.6 eV and 11.7 eV PID, ammonia, nitrous oxide, nitrogen dioxide, and carbon monoxide: Dusttrak as well

1012 POIH communicated with CSM that mixing height reported as 140' above grade according to Data Fusion Advisory System (DFAS)

1026 Odor Vapor Response Cards (OVRC) turned in by affected workers

1044 Two Retrieval West Operations IHs arrive at CSO

1051 Three IHTs arrive at CSO

1053 POIH briefs IHTs to response Industrial Hygiene Sampling Plan (IHSP)

1056 POIH briefs IHTs to Response Plan

1102 IHTs and one RWOIH depart CSO for area sweeps

1106 POIH and RWOIH check Vapor Monitoring Detection System (VMDS):

- POR518 - 0 ppm
- POR519 - 0.721 ppm
- AN - 0 ppm
- AP - N/A
- AW - 27.823 ppm
- POR126 - N/A
- POR127 - N/A
- 702AZ - 16.218 ppm

1137 IHTs and RWOIH return from sweeps to CSO to relay readings and field conditions, all area readings less than action limits

1153 CSM contacts Retrieval Operations Engineer (ROE) regarding generators/light plants in the area: vendor completed servicing of the light plant around the time the workers experienced the odor

1214 DRI instrumentation passed post-use function testing

1222 Exit C-67 and access is restored

Workers were outside of Tank Farm boundaries; thus, respiratory protection equipment and personal ammonia monitors were not required.

# INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

## Event Summary and Timeline:

### Sampling/Monitoring Results:

As part of our response plan to address stronger than normal odors in the area West of AY-1 Change Tent specific actions were implemented. The monitoring strategy was based on the initial report of odors resembling "burnt plastic" and was developed in accordance with TOC-IH-58956. A team consisting of one IH and three IHTs conducted response actions. Upon exiting the vehicle, the responding personnel encountered a "smokey odor" and "exhaust". The IHTs monitored for ammonia, VOCs, carbon monoxide, nitric oxide, nitrogen dioxide and total particulates in the areas adjacent to AY-1 Change Tent, across the street near the running generators, near cigarette butt cans and barbecues, and around the ATCO shop. Below are the DRI monitoring results as described on Page 2/2 of TFC-OPS-OPER-C-67 Attachment A (Response Plan):

	Source <sup>A</sup>	General Area
• Ammonia –	Less than detectable (< 1 ppm)	Less than detectable (< 1 ppm)
• VOC (10.6 eV PID) –	0.010 ppm	< 0.010 ppm
• VOC (11.7 eV PID) <sup>B</sup> –	~ 1.3 ppm <sup>B</sup>	~ < 0.010 ppm <sup>B</sup>
• Carbon Monoxide –	Less than detectable (< 1 ppm)	Less than detectable (< 1 ppm)
• Nitric Oxide –	1 ppm 0.5 ppm within 3 feet of source	< 0.5 ppm
• Nitrogen Dioxide –	0.2 ppm (not sustained)	< 0.1 ppm
• Particulate NOR Total –	0.9 mg/m <sup>3</sup>	0.023 mg/m <sup>3</sup>

<sup>A</sup> Source readings for informational purposes only as an indication of current conditions. Action Limits do not apply to source readings.

<sup>B</sup> VOC 11.7 eV PID utilized for informational purposes only to assist in source identification. VOC 11.7eV PID was not function tested prior to response. Therefore, results are considered qualitative (approximate).

The source readings were observed at the exhaust from the diesel and gasoline generators. The general area readings were the peak area readings observed during the response actions. The results of less than detectable, confirming a safe working condition.

### SWIHD References:

SWIHD survey "25-06769 TFC-OPS-OPER-C-67 Response Outside AY1 Tent"

### Additional Information:

#### Tank Vapors:

The response monitoring 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 Meteorological and VMDS data:

Meteorological Data (Hanford Met Station) at the approximate time of odor event on 9/25/2025 @ 1000:

- Wind Speed: 3 mph
- Wind Direction: 274° (out of West)
- Mixing Height: 700 meters above grade
- Stability Class: D (Neutral Conditions)

VMDS exhauster ammonia readings at the approximate time of odor event on 9/25/2025 @ 0955:

- POR518: 0 ppm
- POR519: 0.721 ppm
- POR126: Not Operational
- POR127: Not Operational
- 702AZ: 16.218 ppm
- AW Farm: 27.823 ppm
- AN Farm: 0 ppm
- AP Farm: Not Operational

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

## INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

### Additional Information:

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

#### 241-A Complex (exc. A):

- High Alarm was conservatively established at 460 ppm Ammonia
  - Ammonia concentration of 2.5 ppm at an unspecified ground receptor
- High High Alarm was conservatively established at 920 ppm Ammonia
  - Ammonia concentration of 5 ppm at an unspecified ground receptor

#### Other Potential Sources:

During the response, the IHTs identified two small gasoline generators, three light plant diesel generators, and a large generator operating up wind in the general area (SWIHD 25-06769), with the light plant generators emitting the most noticeable odors. Additionally, the Central Shift Manager confirmed with operations that, around the time of the odor event, an offsite contractor was servicing and restarting the diesel light plants just west of MO2254/MO2255. It was also reported that welding and grinding activities were conducted at the ATCO shop on the morning of September 25, 2025.

### Recommendations/Conclusions:

#### Recommendations:

The response team noted the lack of physical barriers used for access restrictions. SOEN verbal restriction may not reach all workers or adequately control an area. Use of physical barriers such as stanchions and caution tape or restricted access signs would provide better control.

#### Conclusions:

Direct Reading Instrumentation (DRI) monitoring performed during response actions 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. Review of atmospheric conditions around the reported time of the event indicates the cause of the odor is unlikely to be from Tank Farm emissions. Several other known nearby upwind potential odor sources existed at the time, such as portable generators and diesel combustion light plants that DRI monitoring identified. Additionally, the IH response team described odors during the response of 'burning smell' and 'generator exhaust'.

#### Others:

N/A

### Associated Documents:

iCAS Number: N/A

EIR Number: EIR-2025-075

#### Industrial Hygienist:

\_\_\_\_\_  
*Print First and Last Name*

#### Industrial Hygiene Level 3 Manager

\_\_\_\_\_  
*Print First and Last Name*

#### Industrial Hygiene Level 2 Manager:

\_\_\_\_\_  
*Print First and Last Name*

\_\_\_\_\_  
*Signature / Date*

**ODOR/VAPOR RESPONSE CARD - 241 AY FARM**

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

- Date and time of event: 09/25/25 0955
- Check Applicable:
  - Odor
  - Ammonia Alarm (6 ppm)
  - Ammonia Alarm (12 ppm)
  - Alarm (other - describe): \_\_\_\_\_
- Your name and the work you were performing: \_\_\_\_\_
- Other Work Underway? Describe: none exiting the 217AY-1 tent
- Location of event (mark area on map and wind direction): X marks the location. Wind Southeast
- Name(s) of others in or near the affected area: \_\_\_\_\_ off personal standing
- Was Industrial Hygiene present, who? yes \_\_\_\_\_
- Describe the odor:
  - Sweet
  - Sour
  - Smoky
  - Septic/Sewer
  - Musty
  - Rotten
  - Metallic
  - Onion
  - Earthy
  - Ammonia
  - Citrus
  - Solvent
  - Other (describe): \_\_\_\_\_
- Is source known/likely? Describe: Burning propane welding BBQ?
- 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.**

*work was underway at the ATCO Shop.*

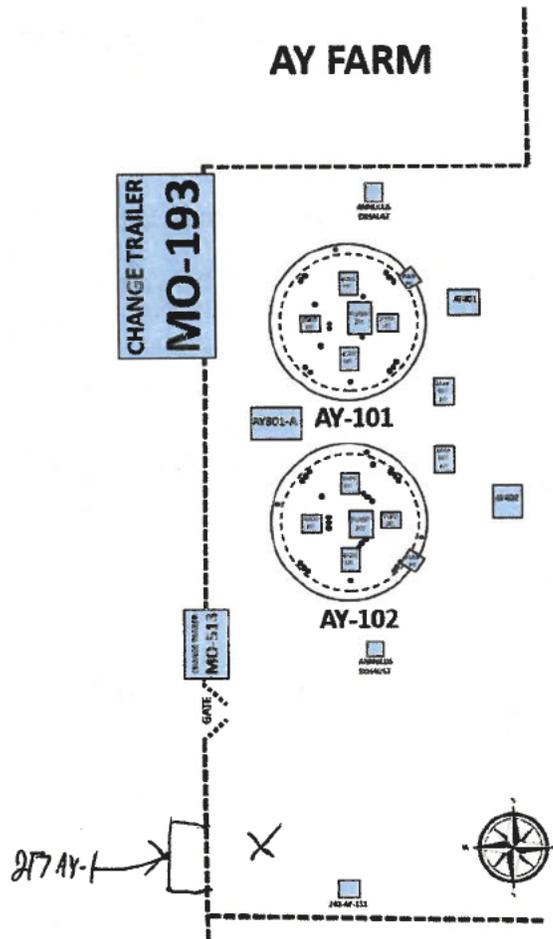
## ODOR/VAPOR RESPONSE CARD - 241 AY FARM

### 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.

### AY FARM



**ODOR/VAPOR RESPONSE CARD - 241 AY FARM**

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

- Date and time of event: 9/25/25 0955
- Check Applicable:
  - Odor
  - Ammonia Alarm (6 ppm)
  - Ammonia Alarm (12 ppm)
  - Alarm (other - describe): \_\_\_\_\_
- Your name and the work you were performing: [redacted] leaving work location
- Other Work Underway? Describe: N/A
- Location of event (mark area on map and wind direction): In front of the 217AP-1 Tent.
- Name(s) of others in or near the affected area: [redacted]
- Was Industrial Hygiene present, who? Myself, No instrument present.
- Describe the odor:
  - Sweet
  - Sour
  - Smoky
  - Septic/Sewer
  - Musty
  - Rotten
  - Metallic
  - Onion
  - Earthy
  - Ammonia
  - Citrus
  - Solvent
  - Other (describe): melting plastic, welding?
- 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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  - 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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\* If received by Supervisor, IH, or Union Safety Representative, the Supervisor/IH/ Union-SR will ensure card it is provided to the CSM.

