

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

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EVENT REPORT FORM

1. Project: Treated Effluent Disposal Facility (TEDF) 2. Report Date: 09//2026
3. Title: C-67 Response at Pump Station #1 [TEDF]
4. Investigation Report Number: EIR-2026-056 5. Revision: 0
6. Responsible Manager: [REDACTED]
7. Event Investigator: [REDACTED]
8. Area/Building/Location: 200W/225W/TEDF Pump Station #1
9. Date and Approximate Time of Event: Date: 08/12/2026 Time: (military) ~0840
10. Associated Action Request (AR) Number: ITDC-AR-2026-2453
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?

On August 12, 2026, a low pH alarm at TEDF Pump Station #1 prompted the Effluent Treatment Facility (ETF) Shift Operations Manager (SOM) to send two Nuclear Chemical Operators (NCOs) to investigate. Upon entering building 225W (Pump Station #1), the NCOs encountered unusually strong "sour", "earthy", "metallic", "musty", & "sharp" odors and promptly reported their findings to the SOM. The SOM instructed the NCOs to evacuate and secure access to 225W. The Central Shift Manager (CSM) was notified and initiated TFC-OPS-OPER-C-67, *Response to Stronger than Normal Odors*. The NCOs initially declined medical evaluation, but later that day requested evaluation. The two instrument technicians who were testing wastewater at the TEDF pond also undergo precautionary medical evaluation. While being monitored, the NCOs experienced symptoms of a film coating on tongue, sore throat, eye irritation, and a headache. All affected personnel were cleared by medical staff and returned to work without restrictions.

14. What Should Have Happened?

Unusually strong "sour", "earthy", "metallic", "musty", & "sharp" odors should not have been present in 225W (Pump Station #1).

15. Key Facts from Investigation:

- To summarize the conclusions of Industrial Hygiene Event Investigation Report IHIR #00145, TFC-OPS-OPER-C-67 Response at 225W the Industrial Hygiene Technicians (IHTs) monitoring targeted ammonia, sulfur dioxide, hydrogen sulfide, and VOCs based on reported odors. All direct-reading instrument measurements and laboratory air-sample results were below applicable occupational exposure limits and did not indicate any vapors were present at or at the time of response. The blue-tinted water and sludge were observed in the sump tanks, supplemental ventilation was staged but not operating, and the dry-pit air intake was found covered by a plastic bag. The odors were likely associated with the discolored sump water and limited fresh-air intake.
- Hanford Mission Integration Solutions, LLC (HMIS) initiated an event investigation into the release of low-pH wastewater, and the completed report is attached to the Condition Report, *ITDC-AR-2026-2453*.
- The low pH wastewater violated TEDF environmental permitting. This issue was addressed in *ITDC-CR-2026-2474*.

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

- Access to 225W (Pump Station #1) was restricted following the initiation of the C-67 odor response until the response actions were completed (total of 4.25 hours).

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

Approved for Public Release;
Further Dissemination Unlimited

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18. Event Causal Matrix Summary: N/A

19. Signatures



INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR)

Event Title: TFC-OPS-OPER-C-67 Response at 225W		IHIR Number: IHIR-00145
		IHEI Number: N/A
Date: 8/12/2026	Time: 0840	Location: 200W/225W

Event Summary and Timeline:

At approximately 0840 on August 12th, 2026, two (2) employees experienced stronger than normal "sour", "earthy", "metallic", "musty", & "sharp" odors inside of 225W (TEDF Pump Station 1) while performing surveillance activities. Symptoms of "film coating on tongue", "sore throat", "eye irritation", "taste" and "headache" reported. All affected employees reported to the on-site occupational medical provider for precautionary medical evaluation.

Field Response Timeline:

828 ETF IH is notified by ETF management that 2 ITs noticed blue, discolored water at TEDF disposal pond south of TEDF Pump Station 3 and an abnormally low pH (~4). ETF management confirms to ETF IH that no odors have been reported at this time but that the job has been stopped until a path forward is identified. ETF IH reaches out to the ETF IHT Supervisor, requesting that IHTs ready DRI instruments equipped with H₂S, VOC, and NH₃ sensors—targeting vapors commonly linked to ETF process water—for further investigation.

829 ETF IHT supervisor confirms that IHTs will be available to support investigation.

840 NCOs enter 225W to perform troubleshooting and obtain a visual pH reading and experience stronger than expected odors.

842 ETF IH notifies DFLAW IH manager of TEDF disposal pond discoloration and intent to monitor for NH₃, VOCs, and H₂S per ETF-specific IHSP.

846 ETF IH is notified by ETF operations manager that workers experienced stronger than expected odors and symptoms after entering 225W. IH instructs IHT to pause preparing instruments for TEDF disposal pond response.

847 ETF SOM contacts CSM #1 and states that 2 workers at 225W experienced stronger than expected odors and a bitter taste in their mouths. ETF SOM states that workers otherwise reported no symptoms, declined precautionary medical evaluation, and would be filling out OVRC. ETF SOM confirms that there was no co-located work at the time of the event.

849 ETF IH and ETF operations manager speak to affected NCOs over the phone. NCOs state that they opened the door to 225W, went to the lower part of the building, got a strange "film" taste in mouth, experienced a "Weird" and "Musty" smell and observed visible oil and sludge. Medical is offered to but declined by both NCOs. ETF operations manager informs ETF IH that ETF SOM has already contacted CSM #1. ETF operations manager confirms to ETF IH that NCOs are on their way back and will complete OVRC.

850 ETF IH briefs DFLAW IH manager on reported odors experienced at 225W.

852 PO IH arrives at CSO.

854 DFLAW IH arrives at CSO.

856 CSM #1 contacts ETF SOM. ETF SOM confirms that the reported odor location is 225W in 200W. ETF SOM states that ETF management has decided to send affected personnel to IHA due to reported symptoms. Two PO Shift IHTs arrive at CSO.

858 DFLAW IH checks DFAS, powered Smart Site™, for weather details and relays to CSM #1:

- Mixing Height: 500 ft. above grade.
- Stability Grade: D (neutral conditions)
- Wind Speed and Direct: 6.5 mph 286° (West Northwest Half West).

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Event Summary and Timeline:

- 859 DFLAW IH checks VMDS and informs CSM #1 that as of 0835, the SY exhausters had an NH₃ concentration of 11.209 ppm.
- 900 DFLAW IH manager arrives at CSO.
ETF SOM reports to CSM #1 that one NCO reported a headache and described a "sharp, musty" smell.
DFLAW IH and PO IH review AIHA's "Odor Thresholds for Chemicals" 4th edition for COPCs associated with "musty" odor descriptors and start preparing a table with associated CFs and ALs.
DFLAW IH and PO IH identify that "musty" odors can correspond to aldehyde compounds and that "sharp" odors can correspond to acetic acid or bromine compounds.
- 901 SOEN: "Initiate C-67 Response for report of stronger than normal odors at Pump Station #1 in 200W. Access is Restricted to Pump Station #1. CSM"
- 902 ETF IH and TI IH arrive at SOM.
ETF IH provides additional information, including the reported blue discoloration of the TEDF disposal pond, lower pH levels (~4) indicated earlier that morning, and that workers at TEDF disposal pond did not report odors.
ETF IH relays information from earlier phone call with NCOs, including visual of sludge "on floor" and that NCOs experienced a "film" taste in mouth and described "Weird" and "Musty" odors.
- 904 ETF PTS contacts ETF IH and states that 225W had received water from HMIS water treatment plant and discharged it to the TEDF Disposal Pond.
ETF PTS states that HMIS has been treating their water plant with an "Alum" product and clarifies this is an aluminum potassium sulfate salt.
ETF IH requests that ETF PTS contact HMIS and request an SDS number for "Alum."
- 906 CSM #1 contacts ETF SOM and asks what type of work was being performed at 225W. ETF SOM states that NCOs had been sent down to 225W to perform troubleshooting activities and get a visual reading of the pH.
- 907 ETF Operations Manager contacts ETF IH and states that ETF management has sent all four workers (2 ITs from TEDF disposal pond and 2 NCOs at 225W) to IHA for precautionary medical evaluation.
ETF IH relays medical evaluation and "alum" treatment information to CSM #1.
- 908 ETF SOM contacts CSM #1 provides the following information:
- Both ITs that initially noticed TEDF disposal pond discoloration while taking a pH reading have also been sent to IHA by ETF management for precautionary medical evaluation.
 - The TEDF disposal pond was blue and had a pH of 4.34.
 - NCOs were dispatched to 225W to troubleshoot and take a pH reading, which is where they encountered the stronger than expected odors.
- 909 CSM #1 states that they will not be restricting access to the TEDF disposal pond at this time.
CSM #1 confirms with ETF SOM the location of the TEDF disposal pond and that the work location did not require RPE at the time. No symptoms were reported by workers at TEDF disposal pond.
- 910 DFLAW IH requests that IHTs prepare the following equipment for event response:
- Sampling pump and six grab air sampling bags,
 - MultiRAE equipped with NH₃, H₂S, and 10.6 eV ionization lamp sensors.
- 915 ETF IHT Supervisor arrives at CSO.
- 918 ETF IS contacts ETF IH to confirm that HMIS IH is locating SDS(s) for "alum" product.
HMIS provides hazard assessment and corresponding SDS numbers for the following products to ETF Production Manager:
- Chemtrade Logistics Dry Alum (GHS-SDS: 074647)
 - CORECHEM Inc. Aluminum Sulfate, Granular (GHS-SDS: 079156 / 079156A)

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Event Summary and Timeline:

920 CSM #1 attempts to contact DOE facility representative.
200W operations engineer contacts CSM #1 to ask about the location of the affected pump station.

921 CSM #1 contacts DOE facility representative and notifies them of odor response.

924 ETF Production Manager contacts ETF IH and provides SDS numbers for "Alum" products.
At ETF IH request, ETF Production Manager emails a copy of HMIS documentation to DFLAW IH for review.

926 CSM #1 notifies case management.

930 CSM #1 contacts PA to request an event investigation.

931 ETF IH completes review of "Alum" safety data sheets and identifies that hazardous decomposition products include sulfuric acid and sulfate compounds.
ETF IH requests an SO₂ sensor be prepared for field response.

932 CSM #1 contacts event investigator and confirms that EIR-2026-056 has been initiated.

933 DFLAW IH manager confirms that IH notifications have been made.

934 IHT Shift Supervisor arrives at CSO.

940 ETF IS contacts ETF IH and states that HMIS added "more chemical than usual" for clean-out activities and intends to dilute.

942 DFLAW IH and ETF IH discuss collecting grab samples for air analysis and review sample media and minimum volumes required to meet LOD.

944 ETF SOM contacts CSM #1.

945 ETF IHT Supervisor, ETF IH, and DFLAW IH confirm sensor readiness for field response, pending receipt of OVRC.

950 ETF IH contacts ETF operations manager to request updated status on OVRC completion.
ETF operations manager states workers are currently at IHA and that they have dispatched personnel to bring OVRC to IHA.

956 CSM #1 provides operations level one delegate an update on odor response.

1004 DFLAW IH requests and receives an IHIR number from IH Records.

1038 CSM #1 performs shift turnover to incoming CSM #2.

1053 ETF IH contacts ETF operations manager to request updated status on OVRC completion.

1059 Two OVRC are hand-delivered to CSO by ETF operations personnel.
ETF operations personnel inform CSM #2 that workers are still waiting for paperwork but will be released from IHA without restrictions.
Odor descriptors include "sour", "musty", "metallic", and "earthy".
Headache, sore throat, eye irritation, and acidic/metallic taste are reported.
NCOs report that the water looked like "sludge and oil."
IH reviews odor descriptors in OVRC and determines that an 11.7 eV ionization lamp sensor needs to be added to the response instrumentation.

1104 IHT Shift Supervisor contacts IHTs and requests that they prepare an 11.7 eV ionization lamp sensor.

1106 Case Management IS contacts ETF IH and states that IHA wants chemical information for the "Alum."
ETF IH provides SDS numbers to Case Management IS.

1109 CSM #2 consults with environmental POC regarding TEDF disposal pond to determine whether reportability criteria had been met.

1112 CSM #1 calls ETF SOM, who confirms that the TEDF disposal pond has a liner.

1122 IHA representative contacts CSM #2 to confirm receipt of information.

1124 DFLAW IH and CSM #2 sign TFC-OPS-OPER-C-67 Attachment A - Response Plan page 1.

1127 ETF IH briefs IHTs on sample plan and response plan.
ETF IH offers voluntary respiratory protection.
Both IHTs decline voluntary respiratory protection.

1129 ETF IH, TI IH, and IHTs depart CSO for 225W.

1139 DFLAW IH tells IH SMO to expect rush TAT air samples.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Event Summary and Timeline:

- 1143 ETF IH notifies PO IH that the response team has arrived at 225W, ETF IH continuously provides updates and monitoring results to PO IH throughout response actions.
ETF NCO is present at 225W and provides access to the facility to response team. ETF NCO enters 225W with response team to direct to affected area.
- 1144 Response team monitors at the door to 225W. All readings are below LOD.
- 1145 Response team monitors on the top floor of 225W. All readings are below LOD.
- 1146 Response team monitors near the sumps on the bottom floor. All readings are below LOD.
- 1150 Response team monitors flanges on the bottom floor. All readings are below LOD. No sludge is observed on the floor.
IHTs begin collecting grab samples, starting with the bottom floor north sump tank.
Continuous area monitoring is performed throughout facility occupancy. All readings remain below LOD.
- 1152 ETF IH informs PO IH that grab sample collection is underway.
ETF IH informs PO IH that ETF NCO is present inside 225W and is explaining standard facility configuration to response team.
- 1154 IHTs collect second grab sample at the bottom floor south sump tank.
- 1156 ETF IH informs PO IH that standing water/sludge is visible at the bottom of both sumps.
- 1157 ETF IH informs PO IH that they shone a flashlight on the standing water and confirmed that the water was blue.
- 1158 IHTs collect third grab sample on top of bottom floor pumps.
- 1200 ETF IH informs PO IH that ETF NCO has read the facility level indicator and confirmed that 10'3" of water is currently in the sump tanks.
- 1203 IHTs collect fourth grab sample on top floor at south corner garbage can.
- 1207 IHTs collect fifth grab sample on top floor at closed hatchway to lower floor.
- 1212 IHTs collect sixth grab sample on top floor staircase landing.
- 1215 ETF IH informs PO IH that grab sampling is complete and that IHTs performed continuous area monitoring during all grab sample collection, but all readings remained below LOD.
- 1216 ETF IH informs PO IH that ETF NCO is securing 225W.
Response team departs from 225W to post DRI.
- 1221 DFLAW IH exits CSO.
- 1222 ETF Operations Manager informs ETF IH that they intend to collect liquid samples per ETF-05-002 or ETF-65J-002 once access is restored to 225W.
ETF Operations Manager and ETF IH discuss PPE and monitoring requirements for liquid sampling.
- 1229 Response team returns to CSO.
IHT requests IHSP interpretation from ETF IH regarding grab sample preparation and analysis.
ETF IH informs CSM #2 that ETF operations plans to collect liquid samples at 225W once access is restored to the facility.
- 1239 ETF IHT contacts ETF IH and informs them that NCOs are requesting an IH briefing prior to collecting liquid samples at 225W.
- 1240 IHTs inform PO IH that DRI #001673 (SO2 sensor) passed its post-use function tests at MO2253 and they are heading to 272AW to post DRI #001479 (11.7 eV PID sensor) and then 2025E to post DRI #001943 (10.6 eV PID, NH3, and H2S sensors).
- 1242 ETF IH and ETF IHT discuss IH support and resources for 225W liquid sampling evolution.
Environmental contacts CSM #2.
- 1244 ETF IH contacts ETF IHT supervisor and requests that an IHT resource be allocated to support 225W liquid sampling.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Event Summary and Timeline:

- 1246 IHTs report DRI #001479 (11.7 eV PID sensor) passed its post-use function tests at 272AW and that they are headed to 2025E to post DRI #001943 (10.6 eV PID, NH₃, and H₂S sensors).
- 1242 CSM #2 and Environmental discuss potential notification to ecology. Environmental states that they will update CSM #2 with information if the event meets reportable criteria.
- 1304 IHTs report that DRI #001943 (10.6eV PID, NH₃, and H₂S sensors) posted its post-use function test.
PO IH confirms with IHTs that all readings were below the limit of detection.
PO IH provides IHTs with SWIHD DRI survey number.
- 1311 ETF IH and CSM sign TFC-OPS-OPER-C-67 Attachment A - Response Plan page 2, completing C-67 response.
- 1316 CSM #2 restores access to 225W.
IHTs contacts ETF IH to confirm whether blanks are needed/desired.
ETF IH instructs IHTs to include one blank per analytical method.
- 1327 CSM #2 calls HMIS to discuss event.
- 1335 SOEN: "C-67 Odor Response for Stronger than Normal Odors reported at Pump Station #1 in 200W are complete. Normal Access to Pump Station #1 in 200W is restored. CSM"
- 1339 PO IH, ETF IH and CSM #2 discuss whether any OELs may have been exceeded, as screening criteria for reportability.
PO IH and ETF IH confirm that all DRI results indicated that vapors associated with the reported odor were below the LOD, with air analysis pending as secondary validation.
PO IH and ETF IH review corresponding OELs that could be applicable to aluminum sulfate and communicate to CSM #2 that the only pertinent OEL for the chemical would be the "Particulates Not Otherwise Regulated" 15 mg/m³ total dust, 5 mg/m³ respirable fraction.
PO IH and ETF IH confirm to CSM #2 that airborne particulates are not an anticipated hazard, as the "Alum" has been added into the water. The more likely contaminant would be sulfate compounds, which were included in the initial response.
PO IH, ETF IH, and TI IH depart from the CSO.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Event Summary and Timeline:

Acronyms:

AL	Action Limit
CCV	Continuing Calibration Verification
CF	Correction Factor
COPC	Chemical of Potential Concern
CSM	Central Shift Manager
CSO	Central Shift Office
DFAS	Data Fusion Advisory System
DFLAW	Direct Feed Low Activity Waste
DOE	Department of Energy
DRI	Direct Read Instrument
EIR	Event Investigation Report
ETF	Effluent Treatment Facility
eV	electron-volts
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
H2C	Hanford Tank Waste Operations & Closure
H ₂ S	Hydrogen Sulfide
HMIS	Hanford Mission Integration Solutions
IH	Industrial Hygienist
IHA	Inomedic Health Applications, Inc
IHIR	Industrial Hygiene Event Investigation Report
IHSP	Industrial Hygiene Sample Plan
IHT	Industrial Hygiene Technician
IS	Industrial Safety
IT	Instrument Technician
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
mg/m ³	Milligrams per cubic meter
NCO	Nuclear Chemical Operator
NH ₃	Ammonia
OEL	Occupational Exposure Limit
OVRC	Odor/Vapor Response Card
PA	Performance Assurance
PID	Photoionization Detector
PO	Production Operations
POC	Point of Contact
ppm	parts per million
PTS	Plant Technical Specialist
RLVS	Reporting Limit Verification Sample
SO ₂	Sulfur Dioxide
SOEN	Shift Office Event Notification
SOM	Shift Office Manager
SDS	Safety Data Sheet
SWIHD	Site Wide Industrial Hygiene Database
TAT	Turnaround Time
TEDF	Treated Effluent Disposal Facility
TI	Technical Integration
VOC	Volatile Organic Compound
VMDS	Vapor Monitoring Detection System

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

IH Monitoring Selections- Based on the Odor Descriptors "sour", "earthy", "metallic", "musty", & "sharp", monitoring for NH₃, SO₂, H₂S and Total VOCs (10.6 eV and 11.7 eV PID) was performed:

- The American Industrial Hygiene Association (AIHA) Odor Threshold for Chemicals with Established Health Standards, 4th Edition, lists several VOCs with the odor character "musty/sharp" that are detectable with DRI equipped with a 10.6 eV and/or 11.7 eV PID.
- Correction factors were applied for each COPC per Honeywell Technical Note TN-106, "A Guideline for PID Instrument Response".
- The Total VOC ALs were conservatively set at 1.5 ppm (10.6 eV) and 1.9 ppm (11.7 eV) based on diethylamine and acetic acid respectively. Total VOC AL Development:

Equation 1. Converting from mg/m³ to ppm

$$\text{ppm} = \frac{X \text{ mg/m}^3 \times 24.45}{MW}$$

Equation 2. Adjusting PID Reading Display for Specific Compound

$$\text{Adjusted Reading} = X \text{ ppm (display)} \times CF$$

Equation 3. Adjusted Action Limit for Specific Compound

$$\text{Adjusted Action Limit (display)} = \frac{X \text{ ppm (AL)}}{CF}$$

Table 1. 225W Total VOC AL Development

COPC	CAS No.	CF (10.6 eV)	CF (11.7 eV)	OEL (ppm)	OEL/CF (10.6 eV)	OEL/CF (11.7 eV)	AL = (OEL/CF/2) (ppm)
Acetic Acid	64-19-7	22	2.6	10	0.45	3.84	1.9
Butoxyethanol	111-76-2	1.2	0.6	20	16.7	33.3	8.4
Butylamine	109-73-9	1.1	0.7	5	4.5	7.1	2.3
Diethylamine	109-89-7	1.6	N/A	5	3.1	N/A	1.5
2-Ethoxyethanol	110-80-5	1.3	N/A	5	3.85	N/A	1.92
Isobutanol	78-83-1	3.8	1.5	50	13.2	33.3	6.6
Methanol	67-56-1	NR	2.5	200	N/A	80	40
Propionic Acid	79-09-4	N/A	N/A	10	N/A	N/A	N/A
Toluene	108-88-3	0.45	0.51	20	44.4	39.2	3.33
Vinyl Acetate	108-05-4	1.2	1.0	10	8.3	10	4.2

(ACGIH, 2016; [OSHA, n.d.](#); [RAE Systems by Honeywell, 2018](#))

NOTE: Although Acetic Acid had a lower 10.6 eV OEL/CF value than 2-ethoxyethanol, IH determined that the resulting action limit (0.22 ppm) was too close to the instruments limit of detection and opted to utilize the 11.7 eV PID for AL development and monitoring strategy.

Refer to [TOC-IH-58956](#) for more detail on the monitoring strategy and action limit development for response to odors.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

IH directed the collection of air samples, selecting analyses based on the corresponding COPCs for odors identified. To achieve the minimum LOD volume, sample run times were calculated as shown in Table 2. Approximately 23,250 mL were needed to complete all three analyses, so IHTs were instructed to collect at least 30 liters of air using grab samples in polypropylene (or equivalent) bags, following IHSP-PO-MULTI-TFCOPSOPERC67. Three 10-liter air samples were collected from both the top and bottom floors of 225W, resulting in a total of six air samples.

Equation 4. Minimum Sample Run Time Requirement

$$\text{Minimum Run Time (min)} = \frac{\text{Minimum Volume (mL)}}{\text{Flow Rate } \left(\frac{\text{mL}}{\text{min}}\right)}$$

Table 2. 225W Grab Sampling Analysis

Analysis	Media	Flow-Rate (mL/min)	Sample Time (minutes)	Minimum Volume (mL)
XAD-7-NBD (SKC-226-96) Dimethylamine/ethylamine/ methylamine	SKC-226- 96	150	45	6750
TDU-VOC (Carbotrap 300/PE/G) VOC	TDU Carbotrap 300	50	30	1500
Silica Gel (SKC 226-119- 7) Aldehyde Panel	SKC-226- 119-7	1000	15	15000

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

The response team monitored their way into 225W and encountered "industrial, musty" odors upon entry. However, all DRI readings remain below the LOD throughout the entire C-67 response. No upset conditions were identified upon entry to the upper and bottom floors, pictured below:



Figure 1 - 225W Upper Floor



Figure 2 - 225W Bottom Floor

Once the initial sweep was complete, grab air samples were collected at the following locations:

- Lower floor north sump tank.
- Lower floor south sump tank.
- Lower floor pumps.
- Upper floor south corner near trash can.
- Upper floor at closed hatchway to lower floor.
- Upper floor staircase landing.

Once the field response was complete, the IHTs performed a post use function test on their instruments. The final DRI instrument passed at 1304. DRI monitoring are listed below:

Table 3 - 225W DRI Monitoring Results

Location	VOCs (10.6 eV)	VOCs (11.7 eV)	H ₂ S	SO ₂	NH ₃
Upper level (initial sweep)	<0.01 ppm	<0.1 ppm	<0.1 ppm	<0.1 ppm	<1.0 ppm
Bottom Level (initial sweep)	<0.01 ppm	<0.1 ppm	<0.1 ppm	<0.1 ppm	<1.0 ppm
Both levels (continuous area monitoring)	<0.01 ppm	<0.1 ppm	<0.1 ppm	<0.1 ppm	<1.0 ppm

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

Whilst collecting air samples at the north and south sump tanks, the response team noticed the blue tint at the south sump tank and sludge/oil consistency in the north sump tank, as identified below in Figures 3 and 4:



Figure 3 – 225W South Sump Tank



Figure 4 – 225W North Sump Tank

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

IH also observed that supplemental ventilation (B-Air Air Mover Model VP-33) was staged on the bottom floor next to the pumps (see Figure 5). A vent, later identified by the TEDF design authority as the air intake for the 'dry pit' (ref. H-2-140378 Sheets 1-2, H-2-140380, H-2-140381, H-2-140352), was covered by a plastic bag, as pictured below in Figure 6:



Figure 5- 225W Lower Floor Supplemental Ventilation



Figure 6 - 225 Lower Floor Air Intake (Dry Pit)

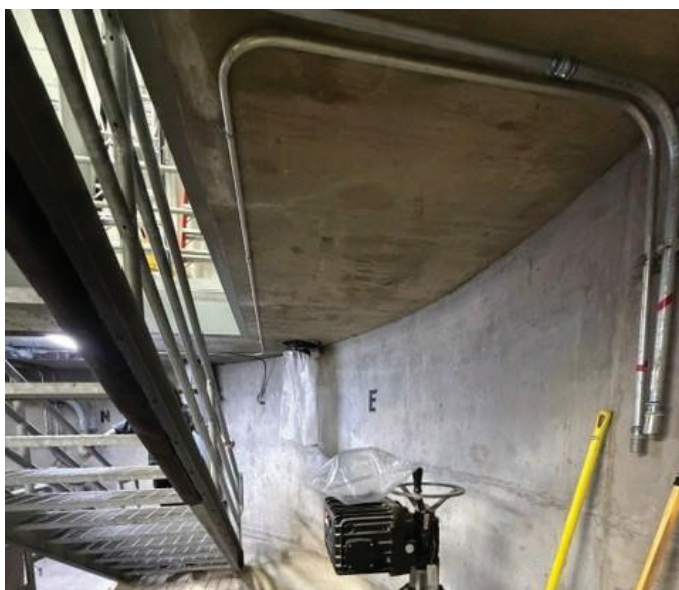


Figure 7 - 225 Lower Floor Air Intake (Dry Pit) Distance

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

Table 4 - 225W Bottom Floor Air Sampling Results (Page 1 of 2)

Analyte	Air Concentration	OEL
1, 4-Dichlorobenzene	< 0.0011 ppm	10 ppm
1,1,2,2-Tetrachloroethane	< 0.0010 ppm	1 ppm
1,1,2-Trichloroethane	< 0.0012 ppm	10 ppm
1,1-Dichloroethane	< 0.0016 ppm	100 ppm
1,1-Dichloroethene	< 0.0017 ppm	5 ppm
1,2-Dichloroethane	< 0.0016 ppm	10 ppm
1,4-Dioxane	< 0.0018 ppm	20 ppm
1-Propanol	< 0.0027 ppm	100 ppm
2,5-Dihydrofuran	< 1.1450 ppb	2 ppb
2-Butanone	< 0.0022 ppm	200 ppm
2-Heptanone	< 0.0014 ppm	50 ppm
2-Hexanone	< 0.0016 ppm	5 ppm
2-Methylfuran	< 0.9775 ppb	2 ppb
2-Propenenitrile	< 0.0030 ppm	2 ppm
3-Buten-2-one*	< 0.0023 ppm	N/A
3-Heptanone	< 0.0014 ppm	50 ppm
3-Octanone*	< 0.0013 ppm	N/A
Acetaldehyde	0.0048 ppm	N/A
Acetone	0.0058 ppm	250 ppm
Acetonitrile	0.0289 ppm	20 ppm
Acetophenone	< 0.0013 ppm	10 ppm
Acrolein	< 0.0012 ppm	0.1 ppm
Allyl Chloride	< 0.0021 ppm	1 ppm
Benzene	< 0.0021 ppm	0.5 ppm
Benzonitrile	< 0.0016 ppm	N/A
Butanal	0.0045 ppm	25 ppm
Butanenitrile	< 0.0023 ppm	8 ppm
Carbon Tetrachloride	< 0.0010 ppm	5 ppm
Chlorobenzene	< 0.0014 ppm	10 ppm
Chloroform	< 0.0013 ppm	10 ppm
cis-1,3-Dichloropropene	< 0.0014 ppm	1 ppm
Cyclohexane	< 0.0019 ppm	100 ppm
Decane	< 0.0011 ppm	200 ppm
Dimethylamine	< 0.1649 ppm	5 ppm
Ethanol	< 0.0035 ppm	1000 ppm
Ethyl acetate	< 0.0018 ppm	400 ppm
Ethyl Benzene	< 0.0015 ppm	20 ppm
Ethyl Chloride	< 0.0025 ppm	100 ppm
Ethylamine	< 0.0412 ppm	5 ppm
Formaldehyde	< 0.0081 ppm	N/A
Hexanal	< 0.0024 ppm	N/A
Hexanenitrile	< 0.0017 ppm	6 ppm
Methyl Acrylonitrile	< 0.0024 ppm	1 ppm
Methyl isobutyl ketone	< 0.0016 ppm	20 ppm
Methylamine	< 0.0598 ppm	5 ppm
Naphthalene	< 0.0013 ppm	10 ppm
n-Butyl acetate	< 0.0014 ppm	50 ppm
n-Heptane	< 0.0016 ppm	400 ppm
n-Hexane	< 0.0019 ppm	50 ppm
Nitrobenzene*	< 0.0013 ppm	1 ppm
Pentanenitrile	< 0.0019 ppm	5 ppm

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

Table 4 - 225W Bottom Floor Air Sampling Results (Page 2 of 2)

Analyte	Air Concentration	OEL
Propanenitrile	< 0.0029 ppm	6 ppm
Propionaldehyde	< 0.0036 ppm	20 ppm
Styrene	< 0.0015 ppm	20 ppm
Tetrachloroethylene	< 0.0010 ppm	25 ppm
Toluene	< 0.0019 ppm	20 ppm
trans-1,3-Dichloropropene	< 0.0014 ppm	1 ppm
Trichloroethylene	< 0.0012 ppm	10 ppm
Trichlorofluoromethane	< 0.0012 ppm	1000 ppm
Valeraldehyde	< 0.0026 ppm	50 ppm

* Due to quality control failures with 3-Buten-2-one, 3-Octanone, and Nitrobenzene, these results have been suspected and should be evaluated qualitatively.

Per laboratory report, all established LCS/LCSD acceptance criteria were met for all VOC compounds, except the following:

- Chloroethane,
- Ethanol,
- Trichlorofluoromethane,
- Furan,
- 1,1-Dichloroethene,
- Methylene chloride,
- Ethyl acetate,
- 1,2-Dichloroethane,
- Styrene,
- Benzonitrile,
- 1,4-Dichlorobenzene,
- Nitrobenzene.

The laboratory report did not indicate whether the analytes with LCS/LCSD results outside acceptable limits had been recovery corrected. However, all referenced constituents were below the LOD (approximately 5-10 ng, depending on the analyte). LCS failure could suggest a low bias in the LCS range of the calibration curve (approximately 40.8 ng to 142.1 ng, depending on the analyte), with potential impact on data validity in that range. While data validity may have been affected for concentrations near the LCS, RLVS samples—except for nitrobenzene—were within the +/-50% acceptance criteria, indicating data validity was not impacted for results in this range (approximately 5 ng).

However, Nitrobenzene exhibited low-biased LCSD and RLVS failures; therefore, its result is suspect and should be considered qualitative.

3-Octanone had an RLVS recovery of 49.1%, indicating possible low bias at this concentration range (5 ng); since the result was below the LOD (10 ng), data validity could be affected, making this result suspect and should be considered qualitative.

Per the laboratory, Expired solutions were used for 3-Buten-2-one CCV, LCS/LCSD, and RLVS injections. Therefore, 3-Buten-2-one data is considered suspect due to laboratory QC error.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

Table 5 - Upper Floor 225W Air Sampling Results (Page 1 of 2)

Analyte	Air Concentration	OEL
1, 4-Dichlorobenzene	< 0.0013 ppm	10 ppm
1,1,2,2-Tetrachloroethane	< 0.0011 ppm	1 ppm
1,1,2-Trichloroethane	< 0.0014 ppm	10 ppm
1,1-Dichloroethane	< 0.0019 ppm	100 ppm
1,1-Dichloroethene	< 0.0019 ppm	5 ppm
1,2-Dichloroethane	< 0.0019 ppm	10 ppm
1,4-Dioxane	< 0.0021 ppm	20 ppm
1-Propanol	< 0.0031 ppm	100 ppm
2,5-Dihydrofuran	< 1.3157 ppb	2 ppb
2-Butanone	< 0.0026 ppm	200 ppm
2-Heptanone	< 0.0016 ppm	50 ppm
2-Hexanone	< 0.0018 ppm	5 ppm
2-Methylfuran	< 1.1232 ppb	2 ppb
2-Propenenitrile	< 0.0035 ppm	2 ppm
3-Buten-2-one*	< 0.0026 ppm	N/A
3-Heptanone	< 0.0016 ppm	50 ppm
3-Octanone*	< 0.0014 ppm	N/A
Acetaldehyde	0.0071 ppm	N/A
Acetone	< 0.003 ppm	250 ppm
Acetonitrile	0.0139 ppm	20 ppm
Acetophenone	< 0.0015 ppm	10 ppm
Acrolein	< 0.0013 ppm	0.1 ppm
Allyl Chloride	< 0.0024 ppm	1 ppm
Benzene	< 0.0024 ppm	0.5 ppm
Benzonitrile	< 0.0018 ppm	N/A
Butanal	0.0068 ppm	25 ppm
Butanenitrile	< 0.0027 ppm	8 ppm
Carbon Tetrachloride	< 0.0012 ppm	5 ppm
Chlorobenzene	< 0.0016 ppm	10 ppm
Chloroform	< 0.0015 ppm	10 ppm
cis-1,3-Dichloropropene	< 0.0017 ppm	1 ppm
Cyclohexane	< 0.0022 ppm	100 ppm
Decane	< 0.0013 ppm	200 ppm
Dimethylamine	< 0.1575 ppm	5 ppm
Ethanol*	0.003 ppm	1000 ppm
Ethyl acetate	< 0.0021 ppm	400 ppm
Ethyl Benzene	< 0.0017 ppm	20 ppm
Ethyl Chloride	< 0.0029 ppm	100 ppm
Ethylamine	< 0.0394 ppm	5 ppm
Formaldehyde	0.0104 ppm	N/A
Hexanal	< 0.0027 ppm	N/A
Hexanenitrile	< 0.0019 ppm	6 ppm
Methyl Acrylonitrile	< 0.0027 ppm	1 ppm
Methyl isobutyl ketone	< 0.0018 ppm	20 ppm
Methylamine	< 0.0572 ppm	5 ppm
Naphthalene	< 0.0014 ppm	10 ppm
n-Butyl acetate	< 0.0016 ppm	50 ppm
n-Heptane	< 0.0018 ppm	400 ppm
n-Hexane	< 0.0021 ppm	50 ppm
Nitrobenzene*	< 0.0015 ppm	1 ppm

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Sampling/Monitoring Results:

Table 5 - Upper Floor 225W Air Sampling Results (Page 2 of 2)

Analyte	Air Concentration	OEL
Pentanenitrile	< 0.0022 ppm	5 ppm
Propanenitrile	< 0.0033 ppm	6 ppm
Propionaldehyde	< 0.0041 ppm	20 ppm
Styrene	< 0.0018 ppm	20 ppm
Tetrachloroethylene	< 0.0011 ppm	25 ppm
Toluene	< 0.0020 ppm	20 ppm
trans-1,3-Dichloropropene	< 0.0017 ppm	1 ppm
Trichloroethylene	< 0.0014 ppm	10 ppm
Trichlorofluoromethane	< 0.0013 ppm	1000 ppm
Valeraldehyde	< 0.0030 ppm	50 ppm

* Due to quality control failures with 3-Buten-2-one, 3-Octanone, Ethanol, and Nitrobenzene, these results have been suspected and should be evaluated qualitatively.

Per laboratory report, all established LCS/LCSD acceptance criteria were met for all VOC compounds, except the following:

- Chloroethane,
- Ethanol,
- Trichlorofluoromethane,
- Furan,
- 1,1-Dichloroethene,
- Methylene chloride,
- Ethyl acetate,
- 1,2-Dichloroethane,
- Styrene,
- Benzonitrile,
- 1,4-Dichlorobenzene,
- Nitrobenzene.

The laboratory report did not indicate whether the analytes with LCS/LCSD results outside acceptable limits had been recovery corrected. However, all referenced constituents-except Ethanol- were below the LOD (approximately 5-10 ng, depending on the analyte). LCS failure could suggest a low bias in the LCS range of the calibration curve (approximately 40.8 ng to 142.1 ng, depending on the analyte), with potential impact on data validity in that range. While data validity may have been affected for concentrations near the LCS, RLVS samples-except for nitrobenzene-were within the +/-50% acceptance criteria, indicating data validity was not impacted for results in this range (approximately 5 ng).

Ethanol was above the LOD (8 ng, once blank corrected) and had LCS failure (39.2% of anticipated concentration), indicating the potential for a low bias. Therefore, its result is suspect and should be considered qualitative.

However, Nitrobenzene exhibited low-biased LCSD and RLVS failures; therefore, its result is suspect and should be considered qualitative.

3-Octanone had an RLVS recovery of 49.1%, indicating possible low bias at this concentration range (5 ng); since the result was below the LOD (10 ng), data validity could be affected, making this result suspect and should be considered qualitative.

Per the laboratory, Expired solutions were used for 3-Buten-2-one CCV, LCS/LCSD, and RLVS injections. Therefore, 3-Buten-2-one data is considered suspect due to laboratory QC error.

All analytes were below their corresponding OELs at the time air sampling was conducted both on the upper floor and bottom floor.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

SWIHD References:

Event Response SWIHD DRI Survey:

#26-05505, "TFC-OPS-OPER-C-67 field response at Pump station 1"

Event Response SWIHD Air Sampling Survey:

#26-05523 "C-67 response at 225W TEDF Pump Station #1"

Liquid Sampling SWIHD DRI Survey:

#26-05541 "ETF Pump Station 1 Sampling"

Additional Information:

Respiratory Protection Equipment was not prescribed for the Initiating Event.

Accordingly, at the time of the Initiating Event, the Affected Workers were not wearing Respiratory Protection Equipment. Respiratory Protection Equipment was not required, nor worn, for the Response Actions.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Additional Information:

Response actions are detailed below, on TFC-OPS-OPER-C-C-67 Attachment A pages 1 and 2:

Response to Stronger than Normal Odors	Manual Document	Operations
	Page	TFC-OPS-OPER-C-67, REV B-8
	Issue Date	5 of 9
		May 26, 2026

Attachment A – Response Plan

RESPONSE PLAN		Sheet 1 of 2
DESCRIPTION OF EVENT (date & time, description of event, location, symptoms, etc.): At approximately 0840 on August 12th, 2026 two (2) employees experienced stronger than normal "Sour", "earthy", "metallic", "musty", & "sharp" odors inside of 225W (TEDF Pump Station 1) while performing surveillance activities. Symptoms of "film coating on tongue", "sore throat", "eye irritation", "taste" and "headache" reported. All affected employees reported to the on-site occupational medical provider for precautionary medical evaluation.		
RESPONSE STEPS: <i>Attach additional pages as needed</i> - Restrict access to 225W. - Perform monitoring as per IHSP-PO-MULTI-TFCOPSOPERC67: - Hydrogen Sulfide (H₂S) – Action Limit 0.5 ppm - Ammonia (NH₃) – Action Limit 12 ppm - Volatile Organic Compounds (VOCs, 10.6 eV PID) – Action Limit 1.5 ppm - Volatile Organic Compounds (VOCs, 11.7 eV PID) – Action Limit 1.9 ppm - Sulfur Dioxide (SO₂) – Action Limit 0.1 ppm - Perform general area monitoring inside in upper and lower areas of 225W. - Collect three (3) grab samples representative of each location: Upper level and lower level of 225W.		
IH Sampling Plan # <u>IHSP-PO-MULTI-TFCOPSOPERC67</u> Respiratory Protection Form # <u>N/A</u> RWP # <u>N/A</u> Other <u>N/A</u>		
REQUIRED APPROVAL SIGNATURES		
Industrial Hygiene:	Signature Print (First & Last)	/ 08/12/2026 Date
Shift Manager:	Signature Print (First & Last)	/ 08/12/2026 Date
ADDITIONAL SIGNATURES (as determined by Shift Manager or Safety & Health Rep; N/A if not applicable)		
RadCon:	N/A Signature Print (First & Last)	/ N/A Date
Environmental:	N/A Signature Print (First & Last)	/ N/A Date
Engineer:	N/A Signature Print (First & Last)	/ N/A Date
Industrial Safety:	N/A Signature Print (First & Last)	/ N/A Date

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Additional Information:

Attachment A – Response Plan (cont.)

RESPONSE PLAN		Sheet 2 of 2
Odor Response Plan Notes (monitoring data, results of actions taken, etc. Use more sheets as necessary)		
• Field Response Results: ○ Upper Floor Direct Reading Instrumentation Results: ▪ Ammonia (NH₃) – Less Than Detectable (< 1.0 ppm) ▪ Hydrogen Sulfide (H₂S) – Less Than Detectable (< 0.1 ppm) ▪ Sulfur Dioxide (SO₂) – Less Than Detectable (< 0.1 ppm) ▪ Volatile Organic Compounds (VOCs, 10.6 eV PID) – Less Than Detectable (< 0.01 ppm) ▪ Volatile Organic Compounds (VOCs, 11.7 eV PID) – Less Than Detectable (< 0.1 ppm) ○ Lower Floor Direct Reading Instrumentation Results: ▪ Ammonia (NH₃) – Less Than Detectable (< 1.0 ppm) ▪ Hydrogen Sulfide (H₂S) – Less Than Detectable (< 0.1 ppm) ▪ Sulfur Dioxide (SO₂) – Less Than Detectable (< 0.1 ppm) ▪ Volatile Organic Compounds (VOCs, 10.6 eV PID) – Less Than Detectable (< 0.01 ppm) ▪ Volatile Organic Compounds (VOCs, 11.7 eV PID) – Less Than Detectable (< 0.1 ppm) ○ Grab samples were collected at the following locations: ▪ Lower floor north sump tank. ▪ Lower floor south sump tank. ▪ Lower floor pumps. ▪ Upper floor south corner near trash can. ▪ Upper floor at closed hatchway to lower floor. ▪ Upper floor staircase landing. • Field Response Notes: ○ "Musty" / "old-smell" odors were present in the affected location at the time of the field response actions. ○ DRI passed post-use-function test @ 1304 on 08/12/2026.		
RESPONSE PLAN COMPLETED:		
Industrial Hygiene:	Signature Print (First & Last) / 08/12/2026 Date	
Shift Manager:	Signature Print (First & Last) / 08/12/2026 Date	

Following response actions, access was restored to 225W.

Recommendations/Conclusions:

IHT monitoring and air sampling did not indicate any vapors were present at or above OELs at the time of response.

Field response actions were delayed by more than 100 minutes following IHT confirmation of sensor readiness for event response, with ETF personnel requiring approximately 160 minutes from event discovery to complete and submit their OVRC. Despite the delay, the persistent odor and visible water discoloration upon arrival indicate that monitoring and sampling results were likely not impacted.

While the exact source of the odor remains uncertain, it is likely connected to the discolored water observed in the 225W Sump Tanks. According to the Level 2 DFLAW/ETF Operations manager, operations received a low pH alarm at TEDF on 8/11/2026 and responded by obtaining manual readings, which confirmed the control room's reported values. Additional manual readings on 8/12 again verified low pH levels. A blue hue was noted in the disposal pond, as pictured below in Figure 7:



Figure 8 - TEDF Disposal Pond

ETF operations contacted HMIS, the sole generator sending effluent through 225W at the time. The Level 2 DFLAW/ETF operations manager indicated that HMIS water utilities also reported a low pH alarm on 8/11, attributing the issue to "Alum" used for equipment cleaning.

IH reviewed all "Alum" SDS provided by HMIS, identifying only two aluminum sulfate salts (CAS No. 10043-01-2 or 16828-12-9) depending on formulation. Per GHS-SDS: 079156, this product is incompatible with strong oxidizing agents, strong bases, moisture, and most common metals in the presence of moisture. Hazardous decomposition products include SO_2 , SO_3 , and aluminum oxide during thermal decomposition, as well as sulfuric acid when in contact with water. Formation of sulfuric acid aligns with the decreased pH reported by HMIS Water Utilities and TEDF.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Recommendations/Conclusions:

During event response, DFLAW IH reviewed the 225W Sump Tank levels and identified that effluent was being discharged from 225W until approximately 8/12/2026 at 0525, when 225W began again receiving effluent from HMIS until 8/12/2026 at 0843 (ref. Figure 9). The addition of liquid into the sump tanks could have potentially caused headspace displacement of any vapors in the sump tanks, leading to a release in the 225W airspace.

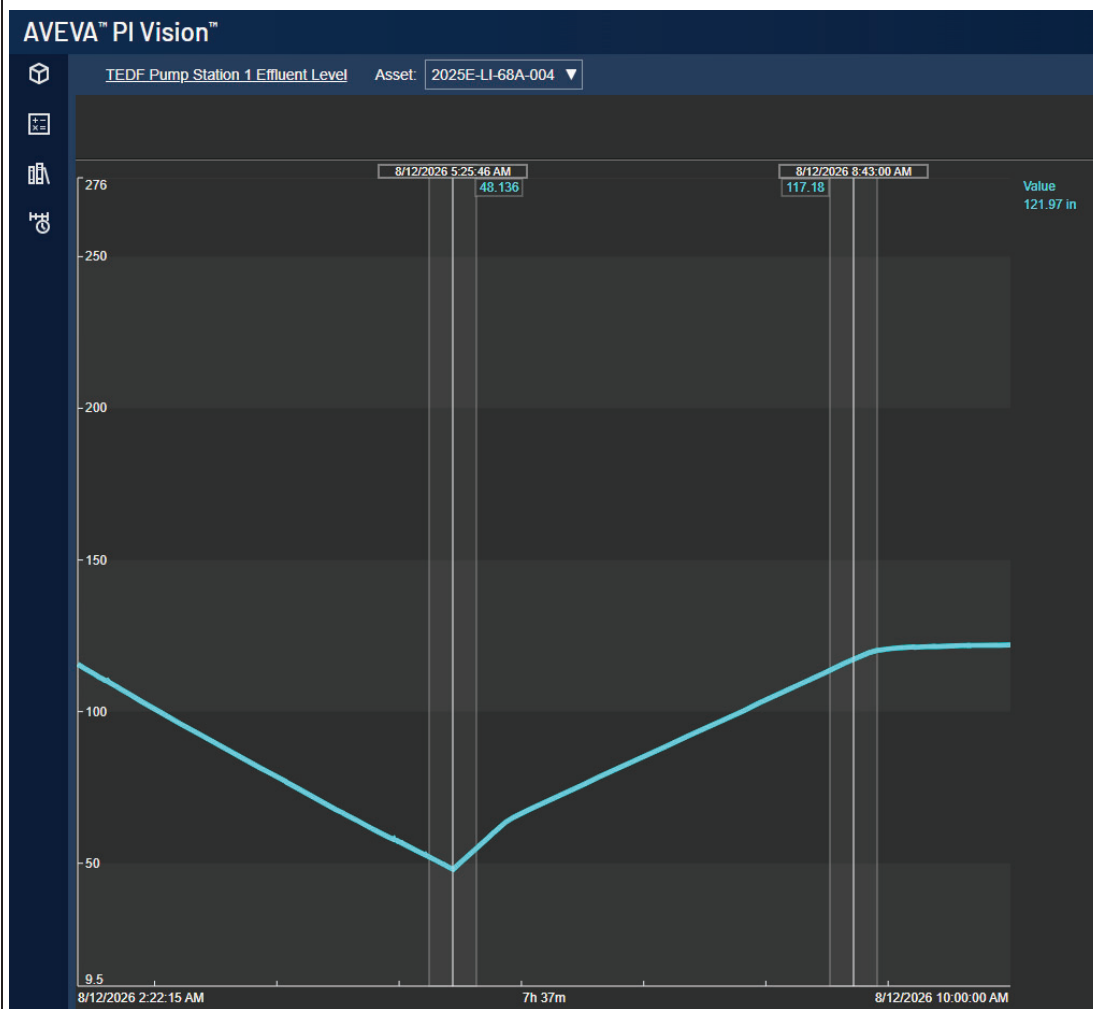


Figure 9 - 225W Effluent Levels

After access was restored to 225W, ETF NCOs reentered the facility to collect liquid samples from the sump tanks for analysis per ETF-65J-002. IHTs conducted continuous breathing zone monitoring during sample collection, with SO₂ being the only constituent detected above the LOD. Brief, not-sustained readings of 0.2 ppm were recorded in workers' breathing zones during sampling, and a sustained source reading of 0.3 ppm was obtained once the sample bottle was filled.

Air quality may also have been impacted by the fresh-air intake being covered with a plastic bag, inhibiting fresh air exchanges within the facility. IH recommends that ETF Engineering evaluate the modification made to the facility configuration to determine if access to this intake needs to be restored.

INDUSTRIAL HYGIENE EVENT INVESTIGATION REPORT (IHIR) (Continued)

Others:

- Two Affected Workers reported symptoms, and four workers received precautionary medical surveillance. All workers were released by IHA without restriction.

Associated Documents:

iCAS Number: ITDC-AR-2026-2474

EIR Number: 2026-025

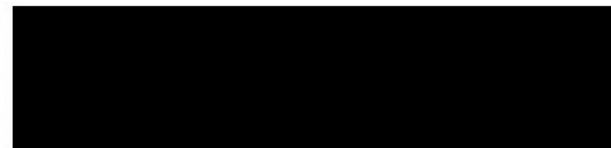
ODOR/VAPOR RESPONSE CARD

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.

We Walked into pump station 1 and got a musky bitter smell, went down stairs and was hit with a bitter sharp smell and taste, noticed the water looked like sludge and oil,



ODOR/VAPOR RESPONSE CARD

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

- Date and time of event: 8/12/26 0850
- Check Applicable:
 - ☒ Odor
 - ☐ Ammonia Alarm (6 ppm)
 - ☐ Ammonia Alarm (12 ppm)
 - ☐ Alarm (other - describe): _____
- Your name and the work you were performing:
[REDACTED] Rounds / P.H. Checks
- Other Work Underway? Describe:
Checking P.H. Levels
- Location of event (mark area on map and wind direction):
Disposal / Pump Station 1
- 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): _____
- Is source known/likely? Describe: _____
- Your symptoms? ☐ None
 - ☒ Headache
 - ☐ Dizziness
 - ☐ Nausea
 - ☐ Cough
 - ☐ Fatigue
 - ☐ Weakness
 - ☒ Sore Throat
 - ☐ Difficulty Breathing
 - ☒ Eye Irritation
 - ☐ Rash
 - ☐ Itch
 - ☐ Tingling
 - ☐ Numbness
 - ☒ Taste
 - ☐ Other (describe): _____

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.

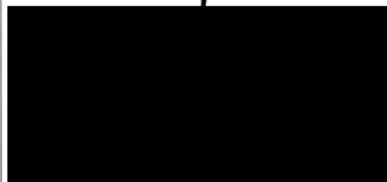
ODOR/VAPOR RESPONSE CARD

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.

Coworker and I were sent to pump station #11 to support the instrument techs in retrieving a pH sample. We arrived before instrument techs, entered the pumpstation, and went downstairs to inspect the water in the tanks. We both noticed an acidic/metallic taste in our mouths and a strange odor. We took pictures of the water, which looked oily/sludgy and left the pumpstation to call the supervisor. We were instructed to close the pumpstation door and block the entrance then report to medical.



ODOR/VAPOR RESPONSE CARD

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

- Date and time of event: 8-12-26/0850
- Check Applicable:
 - ☒ Odor
 - ☐ Ammonia Alarm (6 ppm)
 - ☐ Ammonia Alarm (12 ppm)
 - ☐ Alarm (other - describe): _____
- Your name and the work you were performing:
[REDACTED] were sent to assist instrument techs taking a pti sample
- Other Work Underway? Describe:
None
- Location of event (mark area on map and wind direction):
Pump Station #2 on the TEDF line
- 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): _____
- Is source known/likely? Describe:
Unknown at this time
- 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.