REGION 3

PHILADELPHIA, PA 19103

Report Title:	Clean Air Act Inspection of Prince William County Sanitary Landfill
Inspection Date(s):	03/18/2025 - 03/19/2025
Regulatory Program(s):	SIP, NSPS, NESHAP
Company Name:	Prince William County
Facility Name:	Prince William County Sanitary Landfill
Facility Location:	14811 Dumfries Rd Manassas, VA 20112
Latitude:	38.634597 **Longitude:** -77.428519
County/Parish:	Prince William County
AFS/ICIS-Air Number:	VA0000005115300139
Permit Number:	NVRO72340
NAICS Code:	562212 **SIC:** 4953
DSB ID #:	ECAD-76

Facility Representatives*: **Point of Contact**

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***Additional facility representatives identified in report body and/or on attached sign in sheet**

EPA Inspectors*:

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***Additional inspectors identified in report body and on attached sign in sheet**

State/Local Inspectors*:

Paul Foxwell, Air Compliance Inspector, VA DEQ
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EPA Lead Inspector Signature	**Alex Everhart** 1600 John F Kennedy Blvd Philadelphia, PA 19103-2852	**Date**
Supervisor Signature	KRISTEN HALL Digitally signed by KRISTEN HALL Date: 2025.05.15 07:17:06 -04'00' **Kristen Hall**	**Date**

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DSB ID #: ECAD-76

I. Introduction

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at Prince William County Sanitary Landfill (PWCSLF or Facility) to verify compliance with applicable State and Federal regulations. The Virginia Department of Environmental Quality (VADEQ) was notified of the inspection on March 3, 2025, via email. On March 17, 2025, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Tammy Gumbita, Senior Environmental Program Manager, prior to the inspection (see Attachment 1). These records are listed in the Records Review section of the report.

The inspection included an evaluation of the Facility's processes and its compliance with the CAA. All information included in this report is the result of statements by the Facility representatives, materials shown to the inspectors by the Facility representatives, and/or documents provided by the Facility representatives to the inspectors at the time of, or subsequent to, the inspection. In addition, information gathered prior to the inspection from a review of EPA and State records may be included in Section A. Summary of the Facility.

A. Summary of the Facility

The Facility is located at 14811 Dumfries Rd, Manassas, VA 20112 and is publicly owned and operated by Prince William County. The PWCLF has an active Gas Collection and Control System (GCCS) connected to a blower that pulls a vacuum on the landfill to recover the landfill Gas (LFG).

The Facility received a Title V operating permit (NVRO72340) from VADEQ on February 9, 2004, and subsequently expired on April 14, 2007. The Facility received a Stationary Source Permit to Operate implementing the requirements for Reasonably available Control Technology for the PWCSLF on April 16, 2004. The Facility received a Minor New Source Review Permit on November 18, 2022, that was subsequently amended on June 6, 2023.

The PWCSLF is categorized as a major source of carbon monoxide (CO) emissions and a minor source for all other criteria pollutants. The Facility is subject to, or potentially subject to the following federal regulations:

- 40 CFR Part 63: Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
- 40 CFR Part 60: Subpart Cf – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills
- 40 CFR 60: Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR 61: Subpart M – National Emission Standard for Asbestos
- 40 CFR Part 60: Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014

- 40 CFR Part 60: Subpart XXX – Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification after July 11, 2014
- 40 CFR Part 63: Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

B. Inspection Opening Conference

At 08:30 AM on March 18, 2025, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. PWCSLF was represented by Tammy Gumbita, Senior Environmental Program Manager; Trent Magill, Principal Engineer; Jason Martin, Opal Fuels Wellfield Supervisor; and Dana Whitcomb, Opal Fuels Area Manager. Also, present from VADEQ was Paul Foxwell, Air Compliance Inspector. EPA inspectors, Alex Everhart, Parmatma Adhikari, Owen Ehret, and Ed Owens, presented their credentials and identification and explained the purpose of the visit was to conduct a CAA inspection to determine compliance with their permit and any applicable regulations. Additionally, EPA informed the facility representatives of their right to claim any confidential business information (CBI). At that time, Ms. Gumbita did not claim any photos or documentation as CBI.

EPA Inspectors explained to the Facility that the inspection would include an opening meeting, a facility walkthrough, and a records review. The Facility was also informed by EPA inspectors that during the walkthrough, photographs would be taken, and that comparative surface emission monitoring (SEM) would be performed using either an Inficon IRwin (IRwin) Methane Leak Detector or a Toxic Vapor Analyzer TVA2020. EPA informed the Facility that immediately following the opening conference EPA inspectors would be performing SEM at the landfill listed in the Facility's Title V permit. All SEM equipment was calibrated the morning of March 18, 2025, prior to arriving onsite. Records of the calibrations are included as an attachment to the Inspection Report.

The opening conference concluded at 8:50 AM.

All responses provided throughout the remainder of the Inspection Report were provided by the Facility personnel identified in the opening conference unless otherwise stated.

II. Observations

Day 1 March 18, 2025

Immediately following the opening conference at 08:50 AM on March 18, 2025, EPA inspectors (Alex Everhart, Parmatma Adhikari, Owen Ehret, and Ed Owens) were taken to the Landfill by Prince William County Sanitary Landfill contractor, Jason Martin (Opal Fuels Wellfield Supervisor), to take upwind and downwind methane readings with the Inficon (IRwin) methane detector prior to starting the SEM. A measurement of one (1) parts per million (ppm) was recorded upwind and one (1) ppm was recorded downwind. The Facility indicated that waste in all Phase III Cell A was not older than five years and was

not at final grade. Given the age of waste in those cells EPA did not include Phase III Cell A as part of the comparative SEM.

EPA inspectors began the comparative SEM 9:28 AM on the Phase I Sequence 3 Cap. The image below shows the path taken while completing comparative SEM.

There were 23 detections in exceedance of the 500-ppm regulatory limit, as defined in 40 CFR 60.34f(d). The following table summarizes the readings in exceedance of the 500-ppm regulatory limit:

Location	Time	Measurement (ppmv)	LAT WGS84	LON WGS84
EW56	9:33:00 AM	1947	38.637074	-77.419605
EW52	10:24:00 AM	964	38.63702	-77.42171
S of EW61	10:39:00 AM	75557	38.637309	-77.423951
Manhole S lf EW61	10:42:00 AM	4087	38.637124	-77.424001
S of 12" riser phase 2	12:58:00 PM	690	38.63905	-77.422776
Eastern edge of phase 2	1:10:00 PM	10504	38.638718	-77.422487
East side of phase 2 by hcb	1:17:00 PM	616	38.638282	-77.42268
Uphill from ew64	1:22:00 PM	628	38.638121	-77.422908
S11-2R	1:30:00 PM	636	38.638105	-77.424095
S11-15	2:09:00 PM	1692	38.638058	-77.425699
Isolation valve vault	2:57:00 PM	2051	38.641385	-77.424465
N11-32	2:59:00 PM	3015	38.641482	-77.42465
NII-33	3:06:00 PM	3193	38.641024	-77.424677
West Slope phase 2	3:14:00 PM	1217	38.641051	-77.425228
NII-34	3:21:00 PM	7198	38.640969	-77.425504
NII-9R	3:25:00 PM	20595	38.640509	-77.425489
HCA4	3:27:00 PM	3179	38.640271	-77.425758
NII-25	3:28:00 PM	3228	38.640263	-77.425756
HCA3	3:31:00 PM	5210	38.640069	-77.426222
Near active face	3:33:00 PM	1111	38.63992	-77.425919
SII-7	3:35:00 PM	4364	38.639529	-77.425985
NII-22	3:43:00 PM	878	38.640372	-77.425055
NII-11	3:45:00 PM	1531	38.640646	-77.424663

The SEM and Day 1 of the inspection concluded at 4:09 PM on March 18, 2025.

Day 2 March 19, 2025.

On Day 2 (3/19/25) of the inspection at 8:00 AM EPA (Alex Everhart, Parmatma Adhikari, Owen Ehret and Ed Owens) met with PWCSLF Representatives (Tammy Gumbita and Trent Magill) to continue the Facility tour. The inspection team was first led to the Renewable Natural Gas (RNG) Facility that is operated by Opal Fuels. The inspection team was met by the RNG Plant Operator Hoover Dickenson. Mr. Dickenson stated that Opal Fuels has had an agreement with PWCSLF since the 1990s to handle all aspects of compliance related to landfill gas. Mr. Dickenson described the RNG facility process as follows:

1. Landfill gas is pulled via a blower where it enters a media-based hydrogen sulfide (H_2S) treatment system,
2. After H_2S treatment the landfill gas is cooled and moisture is removed from the landfill gas,
3. The landfill gas then moves to the next stage of treatment where it goes through an Air Liquide skid to remove impurities and carbon dioxide,
4. Next nitrogen is removed in the nitrogen removal unit (NRU)

5. The product gas is then goes to the “virtual pipeline” where it is loaded into tractor trailers
6. Waste gas from each step of treatment is routed to the thermal oxidizer (TOX)

Mr. Dickenson also stated that the TOX (PCD-08) only burns waste gas, and the candlestick flare (PCD-09) burns treated off specification gas and untreated gas in the event of a shutdown at the RNG facility. He stated that both the PCD-08 and PCD-09 have continuous natural gas pilot lights. The natural gas for the pilots is currently trucked in and stored in tanker trucks until the natural gas pipeline construction is complete and the Facility is connected to the pipeline allowing the pilots to be connected to the pipeline. He stated that temperatures from the PCD-08 and PCD-09 are continuously recorded, and that Opal provides all of the data to PWCSLF. He stated that the initial and only performance test that have been completed on PCD-08 and PCD-09 happened in 2024. Mr. Dickenson stated that the goal of the RNG plant is to fill 10 to 12 tractor trailers per day until the facility is tied into the actual pipeline. He stated completion of the actual pipeline is eight to twelve months away. At the time of inspection, the 3255 SCFM of LFG was entering into the RNG facility at 51% methane (CH_4) and the product gas was 98% CH_4. He stated the overall capacity of the RNG facility is 6,500 standard cubic feet per minute (SCFM).

Following a verbal description of the process, Mr. Dickenson led the EPA inspection team on a tour of the RNG facility. The inspection team began outside at the two blowers which pull the LFG from the landfill and followed the path of the LFG. The EPA inspection team observed the H_2S treatment vessels and cooling skids. The EPA inspection team then proceeded inside where the LFG enters the Air Liquide unit and the route to the NRUs that are located outside of the building was observed. The EPA inspection team moved outside and observed the series of NRUs, each NRU was equipped with pressure relief valves that vent directly to the atmosphere. Mr. Dickenson stated that these were present in the event of a pressure spike but that can also be utilized to purge the system after a shutdown as well if needed. The inspection team then moved through the parking lot and observed the TOX and PCD-09. The flow to the TOX at the time of inspection was 1234 SCFM and the destruction temperature was 1794 °F. Gas was not being burned in PCD-09 at the time of inspection.

The inspection team was then led by Prince William County personnel to the Flare Yard which contained flares PCD-10 and PCD-03. Both flares are used as needed to bur gas not taken by the RNG facility either because of a plant shutdown or due to production of more landfill gas than the RNG plant can utilize. Neither of the flares were in operation at the time of inspection. PCD-10 has a rated capacity of 2100 SCFM and PCD-03 has a rated capacity of 4700 SCFM. The inspection team was then taken into the buildings that previously held five (5) generators that utilized landfill gas. The inspection team verified that the emission sources PCD-10, PCD-02, PCD-05, PCD-06 and PCD-07 had been removed from the Facility. The inspection team was then led to flare PCD-04. The flare was not operating at the time of inspection. The facility indicated that the flare serves as a backup and can only pull landfill gas from a portion of the landfill. On average, the flare operates about once a month for maintenance.

The inspection team was then led to the scale house where an emergency generator was observed. The generator is powered by a 3.0 Liter 60-kilowatt, Model 5030TF270C, John Deere diesel powered engine. At the time of the inspection the hour meter read 501.3 hours. The generator had a preventative maintenance log on the generator, and it indicated, the two most recent preventative maintenance events were completed 10/13/23 and 1/19/24.

The inspectors then moved to the fleet building which is collocated with the landfill. The Facility stated that landfill equipment along with other County equipment is maintained at the fleet building. The inspection team was taken on a tour of the Fleet facility by the Fleet Administrator Brent Lineberger. Mr. Lineberger stated that their Fleet building has one (1) emergency generator. The inspection team observed one 180 kilowatt Generac 2000 Series generator. The hour meter at the time of inspection indicated 216.1 hours of operation. The inspection team was then taken through the shop bays where the following were observed:

- One (1) SkatBlast blast cabinet that utilizes glass beads as the blasting media
- One (1) Millermatic 250P MIG welder
- One (1) Millermatic 210 MIG welder
- One (1) parts washer that utilizes “Safe wash SW-4”

The facility tour ended at 12:15 pm on March 19, 2025.

III. Site Activity/Process Description

Day 2 March 19, 2025

On Day 2 (3/19/25) of the inspection at 12:20 EPA (Alex Everhart, Parmatma Adhikari, Owen Ehret and Ed Owens) and VADEQ inspector (Paul Foxwell) met with PWCSLF Representatives (Tammy Gumbita and Trent Magill) to discuss the Facility process and continue the inspection. PWCSLF is publicly owned and operated by Prince William County. The normal hours of operation are from 6:00 AM to 6:00 PM Monday to Friday and Saturday 8:00 AM to 5:00 AM. There are approximately 80 full time employees. The property was originally developed as a landfill owned by Prince William County and has remained a landfill since its initial development.

The total footprint of the Facility is approximately 1,062 acres of which 165 acres are permitted as landfill. The Facility began operations in 1966 as a “dump” which was subsequently closed in 1971. Currently the closed area is used as a ballfield. The landfill was first permitted in 1971 and began operations in 1972. In 1991, Phases I-III were permitted as Subtitle D lined landfill phases consisting of a synthetic base liner. The current total design capacity of the landfill is 16.157 million Megagrams. Based on the Facilities most recent capacity report, Phases I-III are expected to reach capacity in April 2034. Unpermitted Phase 4 has an additional estimated 30 to 40 years of life remaining.

The Facility has a has a daily maximum disposal limit of 2275 tons of waste. The facility accepts mainly household waste and most construction and demolition debris is diverted to other landfills. The landfill

does not accept Asbestos. Clean Harbors collects and removes all Household Hazardous Waste (HHW) at the Facility.

PWCSLF generates approximately 55 million gallons of leachate and landfill gas system condensate per year. Leachate from the Facility discharges to either the one (1) leachate lagoon or via direct discharge connection to a wastewater treatment plant. All leachate from PWCSLF is sent to either the HL Mooney or Prince William County Wastewater Treatment Plant.

A fleet maintenance shop is collocated with the Landfill. The facility stated that no fabrication work or painting occurs in the maintenance shop. It is used for completing preventative maintenance and minor repairs on equipment. The facility stated that waste oil is burned onsite in waste oil heaters used for comfort heat in the maintenance shop. PWCSLF stated that only minor welding occurs.

The following two (2) reciprocating internal combustion engine (RICE) sources are present at the Facility; however, neither are included in the facility's Title V permit:

- Scale house emergency generator
    - Compression ignition, 3.0 Liter 60-kilowatt, Model 5030TF270C, John Deere
- Fleet shop emergency generator
    - Compression ignition, 7.5 Liter 180 kilowatt Generac 2000 Series generator

The facility originally installed it's GCCS in the 1990s. The latest expansion to the GCCS was ongoing at the time of inspection, it included redrilling of 15 wells and installing four (4) new wells. PWCSLF stated that the GCCS has been installed in accordance with the approved Design Plan. The Facility stated that they typically expand the system every six months. The system currently has a design capacity of 6,500 standard cubic feet per minute (SCFM). There are currently 171 LFG collectors installed, PWCSLF was unsure of the breakdown of vertical/horizontal LFG wells and collectors connected to the leachate system. A number of the LFG collectors, have pumps in them for dewatering the LFG wells; however, the Facility was unsure of how many had pumps installed. The liquids from the LFG wells are pumped into sumps of the where it is pumped into the leachate system. The Facility stated that LFG from the GCCS system comes into the Knockout Pot (KOP) from the landfill header, where free liquids fall out. The gas then flows through the blowers. The blowers maintain the vacuum set point on the wellfield of approximately 60 inches of water. The gas then goes to a "Y" where it is sent via pipe header where it is directed to one of the following:

	Source Description	Notes
PCD-03	Candlestick Flare	Max Flow 4,700 SCFM
PCD-04	Candlestick Flare	Max Flow 1,000 SCFM
PCD-10	Candlestick Flare	Max Flow 2,100 SCFM
RNG Facility	Energy Developer	System Capacity 6,500 SCFM

The Facility began operations of a gas to energy engine plant in 1995. The two original engines were replaced in 2006, and then three more engines were added in 2013. The engine plant remained in

operation until December 2023 when it was shut down in preparation of bring the RNG plant online. The RNG plant became operational in May of 2024. Opal Fuels is contracted by Prince William County to operate all aspects of the GCCS, however; Prince William County remains responsible for submitting all compliance reports. Opal Fuels completes all the required monthly Operations and maintenance for the GCCS as well as the quarterly SEM.

IV. Records Review

Day 2 March 19, 2025

The records review commenced immediately after the facility/process description on March 19, 2025, at 1:20 PM. EPA inspectors reviewed documents requested in the March 17, 2025, email to Ms. Gumbita (see Attachment 1). Some records were provided at the time of the inspection by Ms. Gumbita; however, Ms. Gumbita agreed to provide the remainder of the records after the inspection. Below are the records requested and what was provided:

1. General maps:
    - Map with cover types, include descriptions of the cover
      A hard copy of this was provided during the inspection.
    - Landfill cell map and year of first waste placement for each cell
      A hard copy of this was provided during the inspection.

2. Flares & controls
    - Flare monitoring data (2022-present)
      This information was to be provided electronically but has not been provided yet.
    - Flare Performance tests (2022-present)
      The 2024 Performance test report for PCD-08 and PCD-09 was reviewed during the inspection.
    - Collected gas flow (2021-present), (*ideally 15-minute granularity, if data is saved at higher granularity that is fine too, if it is not kept at that granularity than the most granular form of that data*)
      This information was to be provided electronically but has not been provided yet.

3. GCCS Design Plan
    - Current plan & approval (if applicable)
      2024 Design plan and approval was provided during the inspection.
4. GCCS
    - Map of GCCS as built
      This information was provided during the inspection.
    - If horizontal wells are used to control areas under NSPS/NESHAP collection requirements, a description of the spacing (vertical and horizontal) and a map of the extent of the collectors
      This information was to be provided electronically but has not been provided yet.
    - Table of wells active at any point 2021-present

        - Drill / decommission dates as applicable (*if well was installed pre-2021, drill date not needed)*
        - Well type (horizontal, vertical etc)
        - Location of well (ideally lat/lon but otherwise identify what coordinates are used)
        - Depth of well & depth to perforation

      This information was to be provided electronically but has not been provided yet.
    - Wellhead monitoring and records of tuning (2021-present)
        - Include methane, hydrogen, CO, and flow rate, if available

      This information was to be provided electronically but has not been provided yet.
    - Any wellhead HOVs approvals relevant for 2021-present, along with approvals of any alternative timelines or corrections in that time.
      The Facility stated there are no HOVs for the Landfill.
    - Any monitoring of liquid depth in wells (2021-present), including identification of % of perforation obstructed
        - Identification of wells with dewatering pumps
        - Descriptions of any SOPs or internal guidelines that may exist relating to well dewatering

      This information was to be provided electronically but has not been provided yet.

5. Annual/semi-annual reports – for 2022 to present, all:
    - NSPS/NESHAP/EG semi-annual reports
      This information was to be provided electronically but has not been provided yet.
    - Air permit compliance reports
      This information was to be provided electronically but has not been provided yet.
    - SSM reports
      This information was to be provided electronically but has not been provided yet.
    - Annual Emission reports
      The 2022 and 2023 Annual Emission reports were reviewed during the inspection.

6. SEM – for 2022 to present:
    - Include the most recent SEM reports, or at least as much of it as has been completed even if they are not a part of any final semi-annual
    - All recorded data
        - GPS track of path taken
        - Readings including non-exceedances
    - Records of corrective actions
        - Approvals of any alternatives to expansion of the GCCS or alternative timelines
    - Any guidance or training materials provided for the SEM technicians
    - Explanation for why any areas were not monitored, when applicable
      The 2022 SEM reports were presented during the inspection no exceedances were reported.

7. Cover integrity – for 2022 to present:
    - Any records of the monthly cover integrity monitoring and associated corrective actions
      This information was to be provided electronically but has not been provided yet.

8. Air permits:
    - All air permits active for the site in the past five years and their applications
      The Facility provided copies of the approved 2002 Title V permit and June 6, 2023 NSR Permit.

9. Part 98
    - Part 98 Greenhouse Gas Report (2022-present)
      The 2022 and 2023 Reports were reviewed. The facility reported 22.7 metric tons of CO_2 in 2022 and 36.9 metric tons of CO_2 in 2023
    - If the landfill changed the method for calculating emissions in the primary report from Equation HH-6 to Equation HH-8 in the rule (or vice versa), or is reporting using the lower estimate of the two equations, provide an explanation of the basis for that decision
      Not Applicable

10. Annual waste deposited tonnages by type from 2022 to present
    - Include a list of the primary sources of industrial wastes and a description for any special wastes listed
    - Outline of what wastes (if any) are classified as non-degradable for LandGEM maximum expected gas generation (Design Plan) along with the basis for this classification
    - Outline of what wastes are classified as "inert" if applicable for Part 98 reporting along with the basis for this classification

    This information was to be provided electronically but has not been provided yet.

11. Any versions of the SSM plan that have been in place 2022-present
    This information was to be provided electronically but has not been provided yet.

12. Log of any citizen complaints received (2022-present) and responsive action if applicable
    The Facility indicated that they didn't have any complaints.

13. Provide a listing of all onsite combustion sources. Not listed in the Current Title V permit. For each combustion unit onsite provide:
    - The make and model;
      This information was to be provided electronically but has not been provided yet.
    - The date of installation;
      This information was to be provided electronically but has not been provided yet.
    - Size or rating (MMBtu/hr, HP, kW, etc.);
      This information was to be provided electronically but has not been provided yet.
    - Fuel combusted monthly since 2020 to present (gallons, MMcf, etc.);
      This information was to be provided electronically but has not been provided yet.

14. Hours of operation 2021-present for all combustion engines;
    This information was to be provided electronically but has not been provided yet.

15. Daily Fugitive and Visible emission monitoring records 2021 to Present
    This information was to be provided electronically but has not been provided yet.

16. Continuous and 3-hr rolling block average Thermal Oxidizer upper chamber temperatures January 2022 to Present
    This information was to be provided electronically but has not been provided yet.

17. Records of calibrations for all flowmeters and thermocouples used on-site January 2022 to Present
    This information was to be provided electronically but has not been provided yet.

V. Closing Conference

Day 2 March 19, 2025

After the records review, EPA inspectors Alex Everhart, Parmatma Adhikari, Owen Ehret and Ed Owens) VA DEQ inspector (Paul Foxwell) and PWCSLF Representatives (Tammy Gumbita and Trent Magill) held a brief closing conference to ask additional questions and discuss observations. The EPA inspectors noted that the investigation is on-going, and any areas of concern identified in the final report do not necessarily reflect a violation or deviation, rather, they are areas that will require further investigation. EPA also noted that they would issue an inspection report within 60 days, with a copy to the State. Simultaneously, EPA will perform a detailed review of records and may have additional questions. The inspection concluded at 3:10 on March 19, 2025.

The following have been identified as areas of concern during the inspection. They are issues that require either further investigation by EPA or additional information or explanation from the Facility.

- Historically the Facility has reported zero exceedance of 500 PPM methane during SEM monitoring and EPA observed 23 exceedances of 500 ppm methane during SEM monitoring on March 18, 2025. EPA flagged each location for repair at the time of observation. A table of these exceedances is included in Section II of this report. EPA informed the Facility that they should be treated as official SEM exceedances and all timelines and remedial actions as specified in 40 CFR 63.1960(c)(4) should be followed.
- Areas of erosion in need of repair were observed while performing SEM, photos have been included in Attachment 2.
- The emergency generator at the Fleet shop is not being tracked by the landfill and is not in the Facility's Title V permit. This Generator should be tracked and maintained in accordance with 40 CFR Part 63: Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR Part 60: Subpart IIII— Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

VI. List of Attachments

Attachment 1:	Email correspondence to Tammy Gumbita of records requested to review during inspection
Attachment 2:	Photo Log
Attachment 3:	Inspector Sign-in Sheet
Attachment 4:	IRWIN Calibration Log
Attachment 5:	SEM Log

From: Everhart, Alex
To: tgumbita@pwcgov.org
Cc: Owen, Edward; Paul.Foxwell@deq.virginia.gov; Adhikari, Parmatma; Ehret, Owen
Subject: Records Request
Date: Monday, March 17, 2025 3:06:00 PM
Attachments: Prince William Landfill Records Request.pdf

Hi Tammy,

Thanks for returning my phone call. I look forward to our Clean Air Act Inspection at the Prince William County Landfill tomorrow located at 14811 Dumfries Rd, Manassas, VA 20112. We plan to be onsite tomorrow morning around 8:30. We will have our PPE (Hi-Vis Vest and Steel Toe Boots) with us.

I have attached a records request of some documents we would like to review as part of the inspection. As I mentioned the most important one for tomorrow is the map of the Facility so we can plan our approach to the Surface Emissions.

Feel free to reach out if you have any questions between now and when we meet tomorrow.

See you tomorrow!

Alex Everhart
Enforcement Inspector
Air Section
Enforcement & Compliance Assurance Division
U.S. EPA Region 3
Phone 215-814-2114
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Prince William County Landfill

EPA Clean Air Act Inspection

March 2025

Records Request

1. General maps:
    - Map with cover types, include descriptions of the cover
    - Landfill cell map and year of first waste placement for each cell
2. Flares & controls
    - Flare monitoring data (2022-present)
    - Flare Performance tests (2022-present)
    - Collected gas flow (2022-present), (*ideally 15-minute granularity, if data is saved at higher granularity that is fine too, if it is not kept at that granularity than the most granular form of that data*)
3. GCCS Design Plan
    - Current plan & approval if applicable
4. GCCS
    - Map of GCCS as built
    - If horizontal wells are used to control areas under NSPS/NESHAP collection requirements, a description of the spacing (vertical and horizontal) and a map of the extent of the collectors
    - Table of wells active at any point 2022-present
        - Drill / decommission dates as applicable (*if well was installed pre-2022, drill date not needed)*
        - Well type (horizontal, vertical etc)
        - Location of well (ideally lat/lon but otherwise identify what coordinates are used)
        - Depth of well & depth to perforation
    - Wellhead monitoring and records of tuning (2022-present)
        - Include methane, hydrogen, CO, temperature and flow rate, if available
    - Any wellhead HOVs approvals relevant for 2022-present, along with approvals of any alternative timelines or corrections in that time
    - Any monitoring of liquid depth in wells (2022-present), including identification of % of perforation obstructed
        - Identification of wells with dewatering pumps
        - Descriptions of any SOPs or internal guidelines that may exist relating to well dewatering
5. Annual/semi-annual reports – for 2022 to present, all:
    - NSPS/NESHAP/EG semi-annual reports
    - Air permit compliance reports
    - SSM reports
    - Annual Emission reports
6. SEM – for 2022 to present:
    - Include the most recent SEM reports, or at least as much of it as has been completed even if they are not a part of any final semi-annual
    - All recorded data
        - GPS track of path taken
        - Readings including non-exceedances
    - Records of corrective actions

        - Approvals of any alternatives to expansion of the GCCS or alternative timelines
    - Any guidance or training materials provided for the SEM technicians
    - Explanation for why any areas were not monitored, when applicable
7. Cover integrity – for 2022 to present:
    - Any records of the monthly cover integrity monitoring and associated corrective actions
8. Air permits:
    - All air permits active for the site in the past five years and their applications
9. Part 98
    - Part 98 Greenhouse Gas Report (2022-present)
    - If the landfill changed the method for calculating emissions in the primary report from Equation HH-6 to Equation HH-8 in the rule (or vice versa), or is reporting using the lower estimate of the two equations, provide an explanation of the basis for that decision
10. Annual waste deposited tonnages by type from 2022 to present
    - Include a list of the primary sources of industrial wastes and a description for any special wastes listed
    - Outline of what wastes (if any) are classified as non-degradable for LandGEM maximum expected gas generation (Design Plan) along with the basis for this classification
    - Outline of what wastes are classified as "inert" if applicable for Part 98 reporting along with the basis for this classification
11. Any versions of the SSM plan that have been in place 2022-present
12. Log of any citizen complaints received (2022-present) and responsive action if applicable
13. Provide a listing of all onsite combustion sources.. For each combustion unit onsite provide:
    - The make and model;
    - The date of installation;
    - Size or rating (MMBtu/hr, HP, kW, etc.);
    - Fuel combusted monthly since 2022 to present (gallons, MMcf, etc.);
14. Hours of operation 2021-present for all combustion engines;
15. Daily Fugitive and Visible emission monitoring records 2022 to Present
16. Continuous and 3-hr rolling block average Thermal Oxidizer upper chamber temperatures January 2022 to Present
17. Records of calibrations for all flowmeters and thermocouples used on-site January 2022 to Present

Attachment 2:
PHOTO LOG

Facility: PRINCE WILLIAM COUNTY SANITARY LANDFILL

Location: 14811 DUMFRIES RD, MANASSAS, VA 20112

Inspection Date: 3/18/2025 – 3/19/2025

EPA Inspector(s): Alex Everhart, Parmatma Adhikari, Owen Ehret

Photographer: Owen Ehret

Photo Number: Photo 1
Photo Description: EW-56 with flagging marking 500 ppm exceedance at penetration

Photo Number: Photo 2
Photo Description: South Side Phase 1

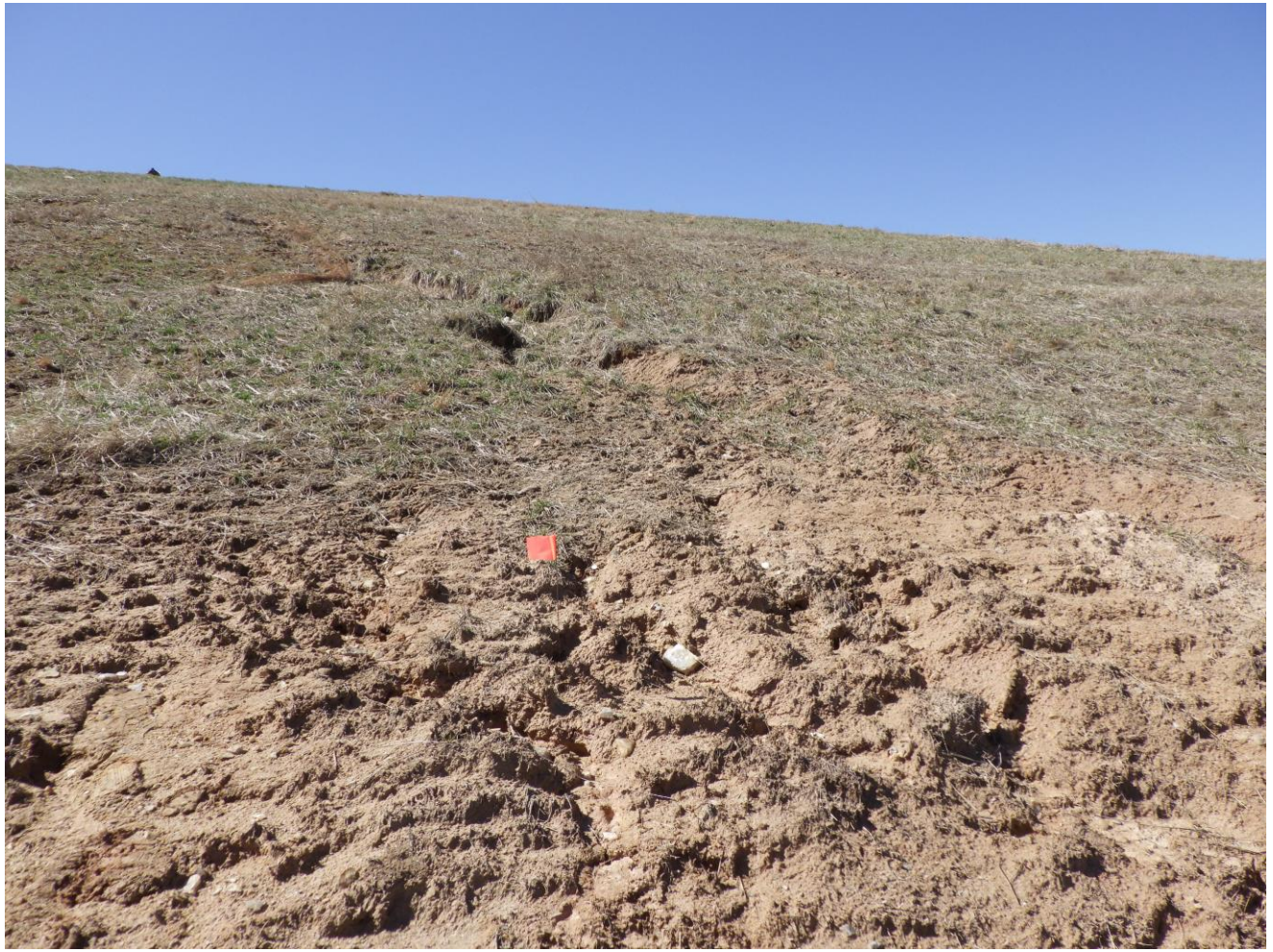

Photo Number: Photo 3
Photo Description: South of 12” Riser Erosion Close-up with Flag showing location of 500 ppm exceedance

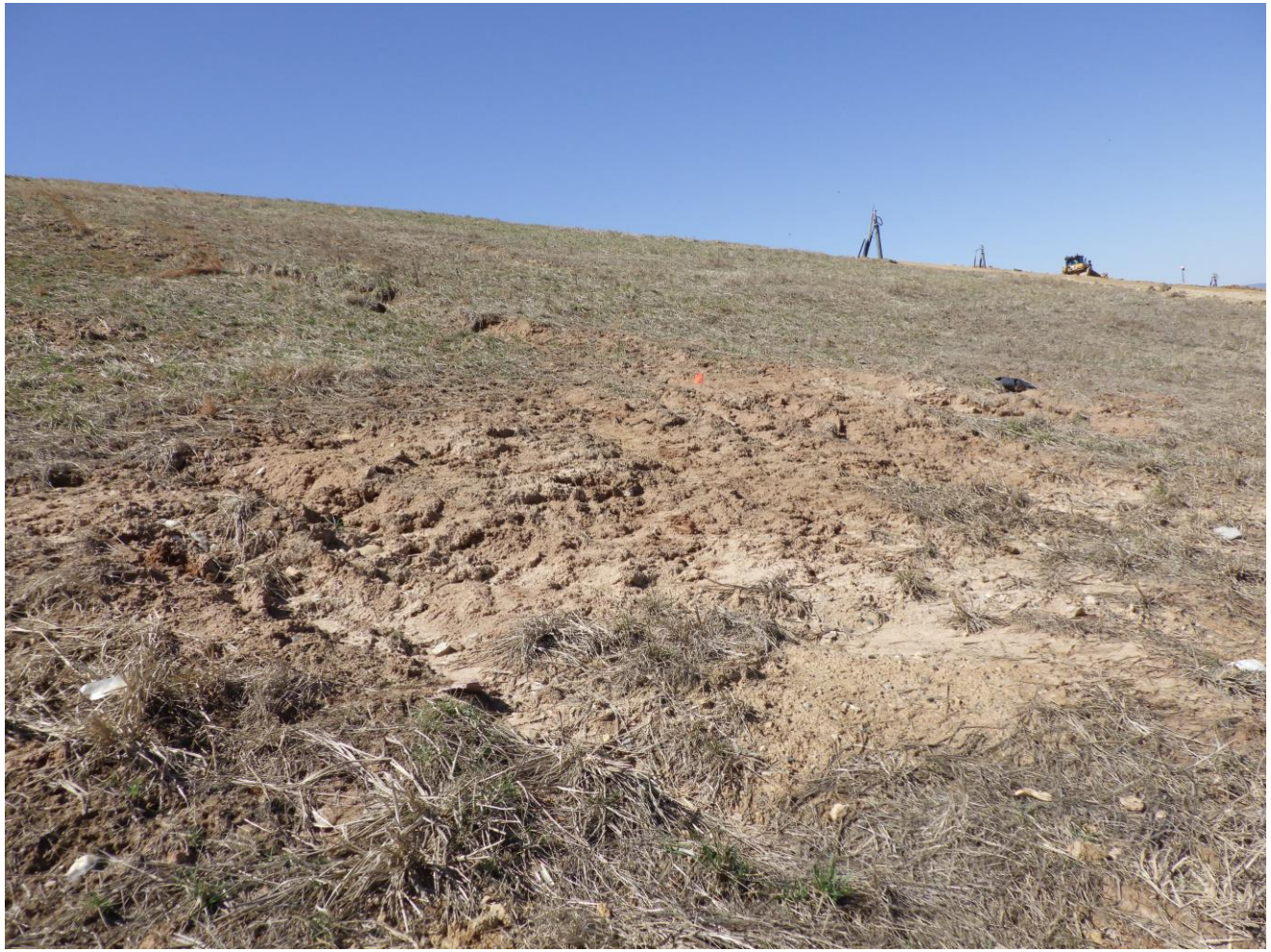

Photo Number: Photo 4
Photo Description: South of 12” Riser Erosion with Flag showing location of 500 ppm exceedance

Photo Number: Photo 5
Photo Description: Overview RNG Facility Process Screen

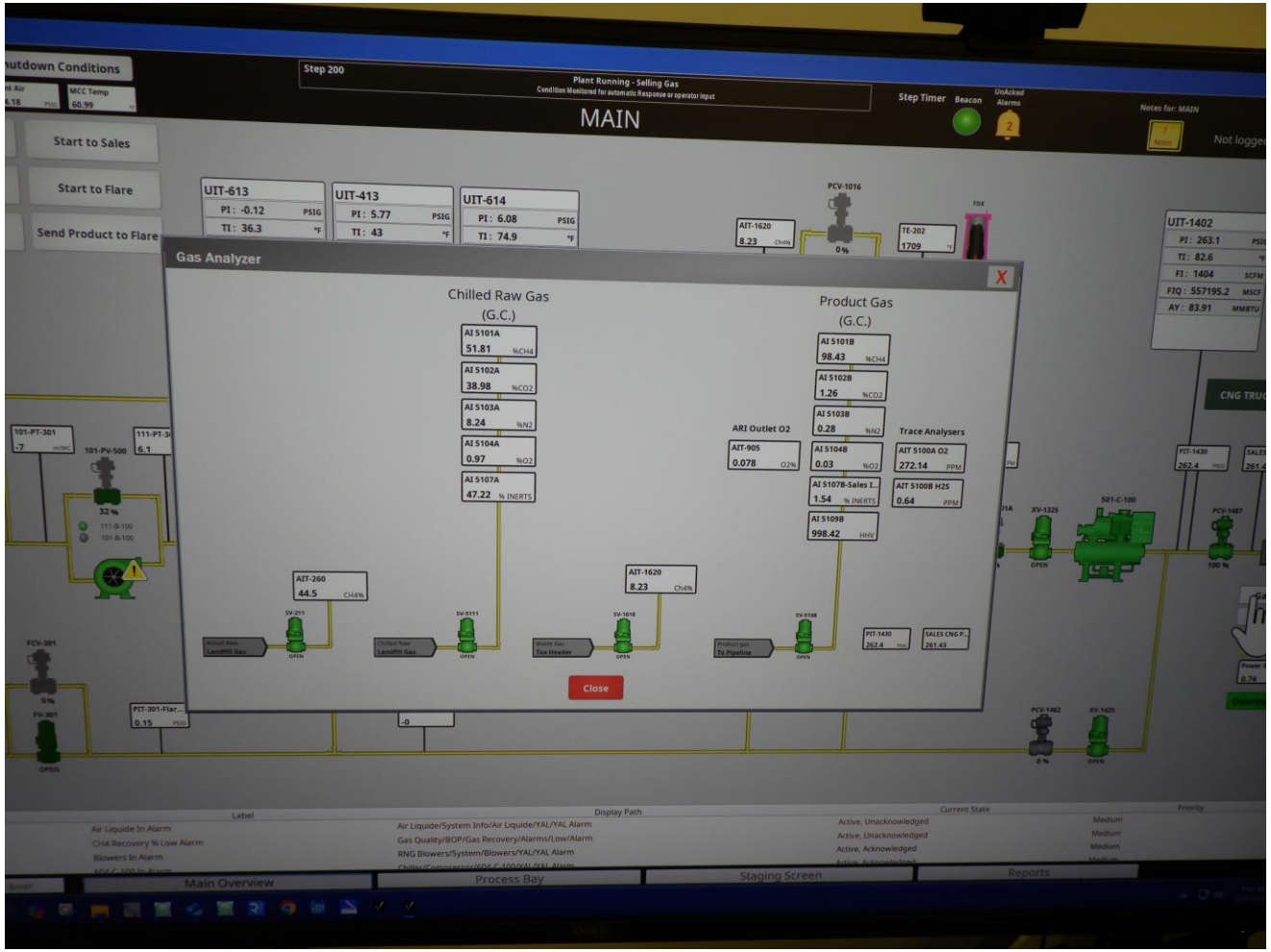

Photo Number: Photo 6
Photo Description: Chilled and Product Gas Screen

Photo Number: Photo 7
Photo Description: Landfill Gas into RNG Facility

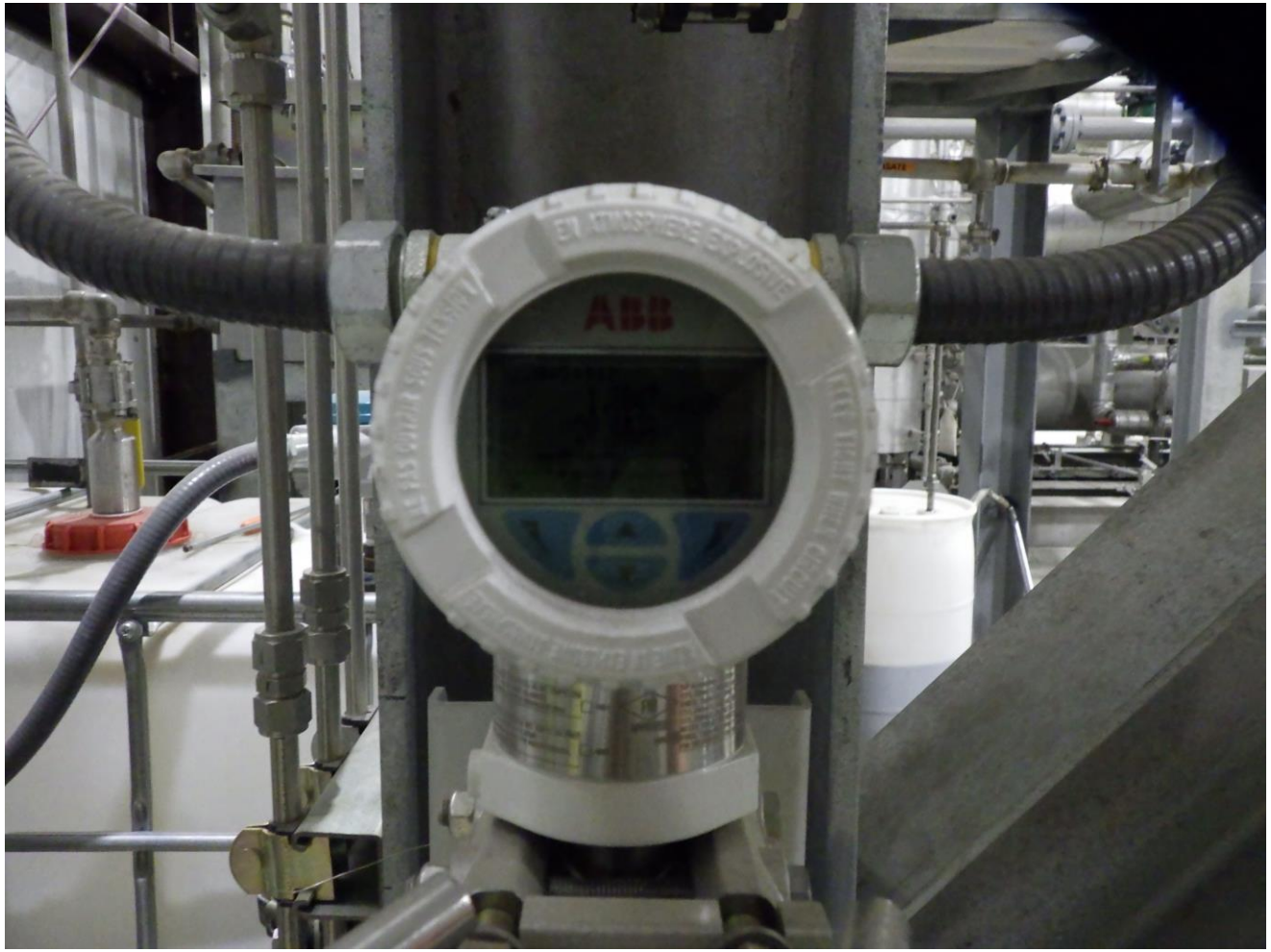

Photo Number: Photo 8
Photo Description: After Chill Flowmeter

Photo Number: Photo 9
Photo Description: Inside RNG Facility Overview

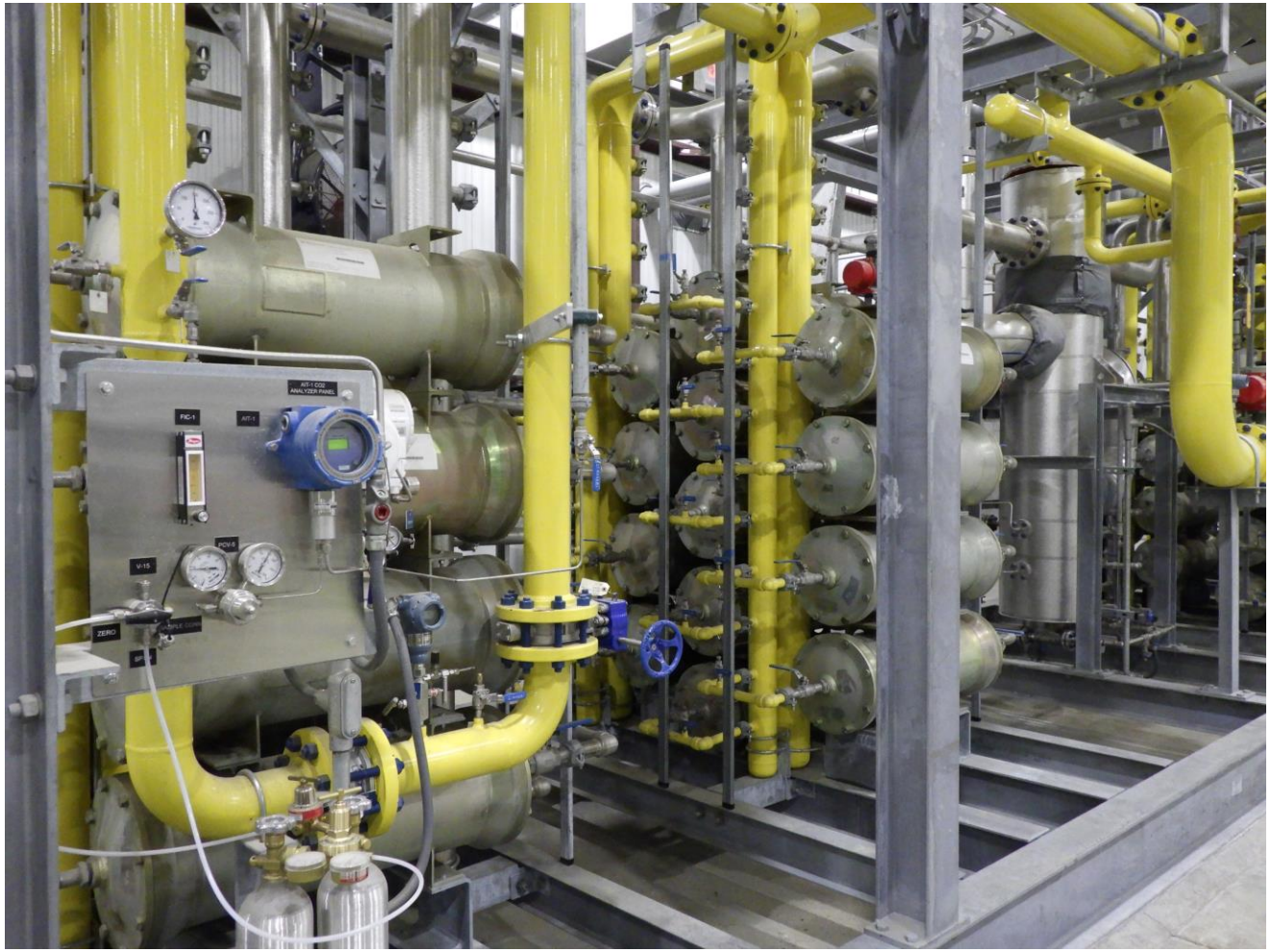

Photo Number: Photo 10
Photo Description: Air Liquide Skid

Photo Number: Photo 11
Photo Description: GC

Photo Number: Photo 12
Photo Description: Off-Spec Gas Flare

Photo Number: Photo 13
Photo Description: Tox Flare Screen

Photo Number: Photo 14
Photo Description: Tox Flare

Photo Number: Photo 15
Photo Description: Nitrogen Removal Unit (NRU) Tanks

Photo Number: Photo 16
Photo Description: PCD-03 and PCD-10

Photo Number: Photo 17
Photo Description: Removed Generators

Photo Number: Photo 18
Photo Description: PCD-04

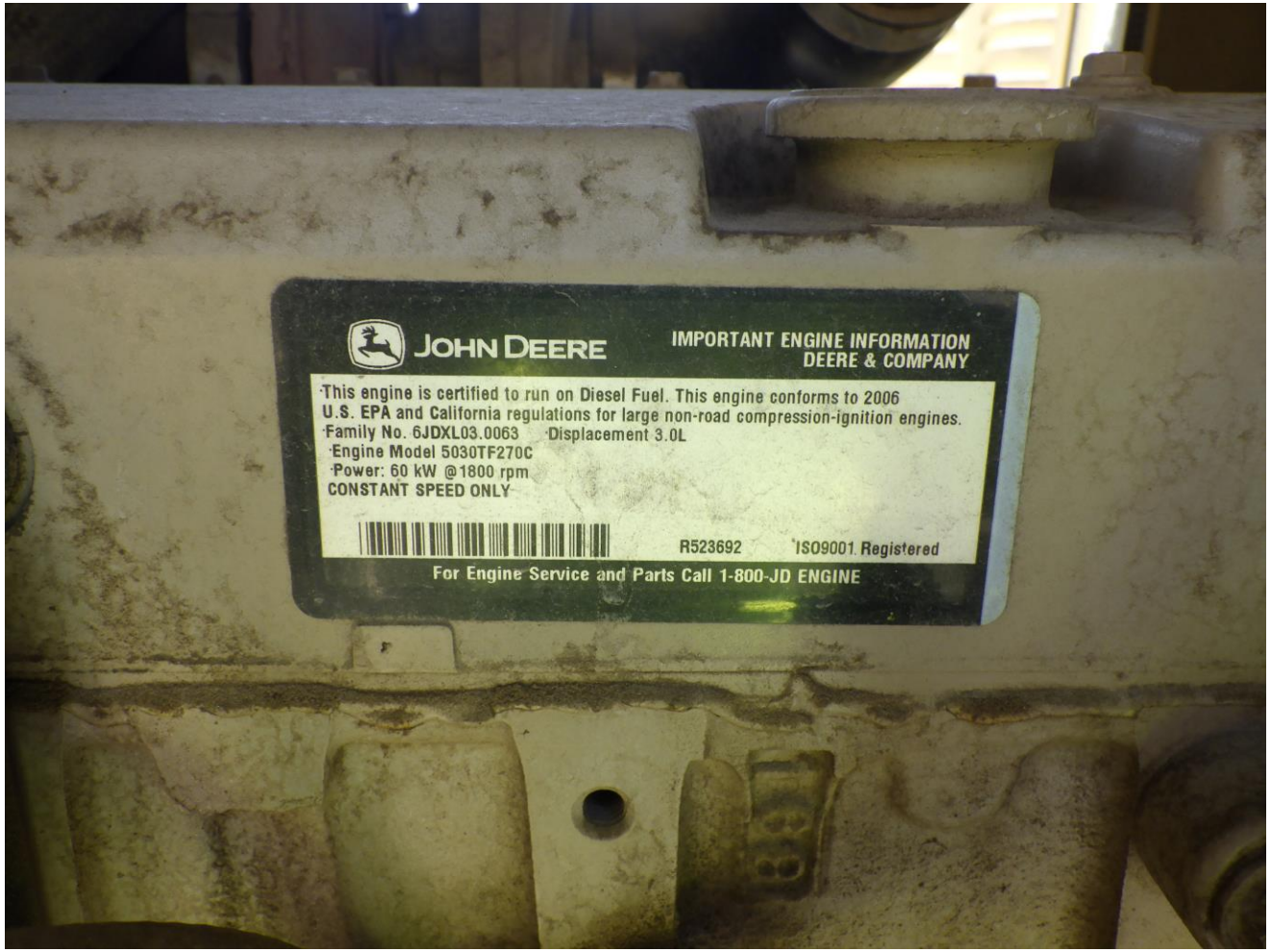

Photo Number: Photo 19
Photo Description: Scale House Generator Label

Inspection Sign-In Sheet

Facility: Prince William County

Date: 3/18/25

Name	Affiliation	Title	Phone Number & Email
Alex Everhart	EPA	Enforcement Inspector	215-814-2114 Everhart.Alex@EPA.gov
TRENT MAGILL	Prince William County	Principal Engineer	703-568-5144 tmagill@pwcgov.org
Tammy Gumbita	Prince William Co	Sr Enviro Program Manager	703-792-6804 tgumbita@pwcgov.org
Paul Foxwell	VA DEQ	Air Compliance Insp.	703.567.7606 paul.foxwell@deq.virginia.gov
Jason Martin	OPAL FUELS	Wellfield Sup.	804-715-2264 jamartin@opalfuels.com
DANA WHITCOMB	OPAL FUELS	OPS/AREA MGR	7037953160 DWHITCOMB@OPALFUELS.COM
OWEN EVERY	EPA	ENFORCEMENT INSPECTOR	215-814-2179 everett.owen@epa.gov
Parmatma Adhikari	EPA	Air Inspector	215-814-2161 Adhikari.Parmatma@epa.gov
Edward Owen	EPA	Inspector	814-404-5235

Inspection Sign-In Sheet

Facility: Prince William County Landfill

Date: 3/14/25

Name	Affiliation	Title	Phone Number & Email
Alex Everhart	EPA	Enforcement Inspector	215-814-2114 Everhart.Alex@EPA.gov
Edward Owen	EPA	Inspector Contract	814-404-5230 owen.edward@epa.gov
OWEN EHRET	EPA	AZE INSPECTOR	215-814-2129 ehret.owen@epa.gov
Tammy Gumbita	PWC	Sr. Enviro Program Manager	703-792-6804 tgumbita@pwcgov.org
TRENT MAGILL	PWC	Principal Engineer	703-568-5144 tmagill@pwcgov.org
Parmatma Adhikari	EPA	Air Inspector	215-814-2161 Adhikari.parmatma@epa.gov

PART 1

CALIBRATION PRECISION TEST RECORD

LANDFILL NAME: Prince William County Landfill

DATE: 3/18/2025

TIME: 9:19 **AM** ☒ **PM** ☐

INSTRUMENT MAKE: Inficon **MODEL:** IRwin **S/N:** 92007339

CALIBRATION GAS STANDARD: 500 **ppm (7)** **(Check cal. gas certificate (500 ppm +/-2%)**

MEASUREMENT #1:

Meter Reading for Zero Air: 0 **ppm (1)**

Meter Reading for Calibration Gas: 499 **ppm (2)**

MEASUREMENT #2:

Meter Reading for Zero Air: 0 **ppm (3)**

Meter Reading for Calibration Gas: 499 **ppm (4)**

MEASUREMENT #3:

Meter Reading for Zero Air: 0 **ppm (5)**

Meter Reading for Calibration Gas: 498 **ppm (6)**

CALCULATE PRECISION:

$$\frac{|(7)-(2)| + |(7)-(4)| + |(7) - (6)|}{3} \quad \mathbf{X} \quad \frac{1}{(7)} \quad \mathbf{X} \quad \frac{100}{1}$$

= +0.3%

PERFORMED BY: Alex Everh a rt

CALIBRATION GAS CERTIFICATION DATA AND EXPIRATION DATE:

Zero Gas Serial Number: 304-402692062 **Span Gas Serial Number:** 304-402692063-1
Zero Gas Expiration Date: 03/16/2027 **Span Gas Expiration Date:** 03/16/2027

INCLUDE A COPY OF THE CALIBRATION GAS CERTIFICATION SHEET FROM GAS SUPPLIER/MANUFACTURER

PART 2

RESPONSE TIME TEST RECORD

LANDFILL NAME: Prince William County Landfill

DATE: 3/18/2025

TIME: 9:19 **AM** ☒ **PM** ☐

INSTRUMENT MAKE: Inficon **MODEL:** IRwin **S/N:** 92007339

MEASUREMENT #1:

Stabilized Reading Using Calibration Gas:	499	**ppm**
90% of the Stabilized Reading:	449	**ppm**
Time to reach 90% of Stabilized Reading After Switching from Zero Air to Calibration Gas:	4	**seconds (1)**

MEASUREMENT #2:

Stabilized Reading Using Calibration Gas:	499	**ppm**
90% of the Stabilized Reading:	449	**ppm**
Time to reach 90% of Stabilized Reading After Switching from Zero Air to Calibration Gas:	3	**seconds (2)**

MEASUREMENT #3:

Stabilized Reading Using Calibration Gas:	498	**ppm**
90% of the Stabilized Reading:	448	**ppm**
Time to reach 90% of Stabilized Reading After Switching from Zero Air to Calibration Gas:	4	**seconds (3)**

CALCULATE RESPONSE TIME:

$$\frac{(1)+(2)+(3)}{3}$$

= 3.7 **SECONDS (MUST BE LESS THAN 30 SECONDS)**

PERFORMED BY: Alex Everh a rt

PART 3

STABILIZED READING AND BACKGROUND DETERMINATION

LANDFILL NAME: Prince William County Landfill

DATE: 3/18/2025

TIME: 9:19 **AM** ☒ **PM** ☐

INSTRUMENT MAKE: Inficon **MODEL:** IRwin **S/N:** 92007339

Stabilized Reading Determination Procedure

Calibration gas standard: 500 **ppm**

MEASUREMENT #1:
Stabilized Reading Using Calibration Gas: 499 **ppm**
MEASUREMENT #2:
Stabilized Reading Using Calibration Gas: 499 **ppm**
MEASUREMENT #3:
Stabilized Reading Using Calibration Gas: 498 **ppm**

Stable instrument reading: $\frac{\text{Measurement \#1 + Measurement \#2 + Measurement \#3}}{3}$

Stable instrument reading: 498 **ppm**

Background Determination Procedure

1. **Upwind Reading (highest in 30 seconds):** 1 **ppm (1)**
2. **Downwind Reading (highest in 30 seconds):** 1 **ppm (2)**

Calculate Background Value:

$$\frac{(1) + (2)}{2}$$

Background = 1 **ppm**

PERFORMED BY: Alex Everh a rt

LANDFILL NAME: Prince William County Landfill **DATE:** 3/18/2025

Site Information

Section 1 - Weather Data

Weather Recorded From: ☐ On-Site Weather Station ☐ Portable Device ☒ Other

If "OTHER", describe device utilized for the collection of weather information below.

Phone

Beginning of Monitoring Event		End of Monitoring Event	
Time:	**9:19 AM**	**Time:**	**3:54 PM**
Temperature:	**42 °F**	**Temperature:**	**65 °F**
Barometer:	**30.16 " Hg**	**Barometer:**	**30.06 " Hg**
Humidity:	**36 %**	**Humidity:**	**24 %**
Wind Speed:	**7 mph**	**Wind Speed:**	**4 mph**
Wind Direction:	**NW °**	**Wind Direction:**	**NW °**

TIMESTAMP	Location	CONCENTRATION (ppmv)	LAT WGS84	LON WGS84
3/18/2025 9:33	EW56	1947	38.637074	-77.419605
3/18/2025 10:24	EW52	964	38.63702	-77.42171
3/18/2025 10:39	S of EW61	75557	38.637309	-77.423951
3/18/2025 10:42	Manhole S lf EW61	4087	38.637124	-77.424001
3/18/2025 12:58	S of 12" riser phase 2	690	38.63905	-77.422776
3/18/2025 13:10	Eastern edge of phase 2	10504	38.638718	-77.422487
3/18/2025 13:17	East side of phase 2 by hcb4	616	38.638282	-77.42268
3/18/2025 13:22	Uphill from ew64	628	38.638121	-77.422908
3/18/2025 13:30	S11-2R	636	38.638105	-77.424095
3/18/2025 14:09	S11-15	1692	38.638058	-77.425699
3/18/2025 14:57	Isolation valve vault	2051	38.641385	-77.424465
3/18/2025 14:59	N11-32	3015	38.641482	-77.42465
3/18/2025 15:06	NII-33	3193	38.641024	-77.424677
3/18/2025 15:14	West Slope phase 2	1217	38.641051	-77.425228
3/18/2025 15:21	NII-34	7198	38.640969	-77.425504
3/18/2025 15:25	NII-9R	20595	38.640509	-77.425489
3/18/2025 15:27	HCA4	3179	38.640271	-77.425758
3/18/2025 15:28	NII-25	3228	38.640263	-77.425756
3/18/2025 15:31	HCA3	5210	38.640069	-77.426222
3/18/2025 15:33	Near active face	1111	38.63992	-77.425919
3/18/2025 15:35	SII-7	4364	38.639529	-77.425985
3/18/2025 15:43	NII-22	878	38.640372	-77.425055
3/18/2025 15:45	NII-11	1531	38.640646	-77.424663