



## REGION 3

PHILADELPHIA, PA 19103

**Report Title:** Clean Air Act Inspection of Frederick County Regional Landfill  
**Inspection Date(s):** 11/08-09/2023  
**Regulatory Program(s):** SIP, NSPS, MACT

**Company Name:** N/A  
**Facility Name:** Frederick County Regional Landfill  
**Facility Location:** 280 Landfill Road  
Winchester, VA 22638  
**Latitude:** 39.14513 **Longitude:** -78.10098  
**County/Parish:** Frederick

**AFS/ICIS-Air Number:** VA00000005106900127  
**Permit Number:** VRO81312  
**NAICS Code:** 562212 **SIC:** 4953  
**Unique Project #:** ECAD-52

| Facility Representatives*:                                                      | Point of Contact                    |
|---------------------------------------------------------------------------------|-------------------------------------|
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| Ron Kimble, Landfill Manager                                                    | <input type="checkbox"/>            |
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**\*Additional facility representatives identified in report body and/or on attached sign in sheet**

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**EPA Lead Inspector**

**Signature**

**Alex Everhart**

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**Date**

**Supervisor**

**Signature**

**Kristen Hall**

**Date**

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## **I. Introduction**

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at Frederick County Regional Landfill (FCRLF or Facility) to verify compliance with applicable State and Federal Regulations. The Virginia Department of Environmental Quality (VADEQ) was notified of the inspection on October 23, 2023, via email. On November 6, 2023, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Andrew Clark, Environmental 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 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 Frederick County Regional Landfill is located at 280 Landfill Road, Winchester, VA 22601, and is publicly owned and operated by Frederick County. The Facility encompasses approximately 544 acres, while the landfill footprint covers approximately 193 acres. The FCRLF's current waste acceptance operational hours are from 7:30 a.m. to 4:00 p.m. Mondays to Fridays and Saturdays 7:00 a.m. to 1:00 p.m. The FCRLF began accepting municipal solid waste (MSW) and construction and demolition debris (CDD) waste in 1977. The current permitted design capacity (per EPA's publicly available Landfill Methane Outreach Program (LMOP) database located at <https://www.epa.gov/lmop/lmop-landfill-and-project-database>) of the landfill is 11.3 million tons. Although not required to do so by regulation or permit, the landfill uses an active gas collection and control system (GCCS).

The FCRLF's most recent Title V permit (VRO81312) renewal was issued by VADEQ and became effective on September 1, 2021, this permit expires on August 31, 2025. The Facility is classified as major source for carbon monoxide (CO). The facility's VOC and non-methane organic compound (NMOC) potential emissions do not consider the LFG collection and control system, as there are no federally enforceable requirements for the facility to control emissions (based on FCRLF's uncontrolled NMOC emissions level). 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 for Municipal Solid Waste Landfills
- 40 CFR Part 63: Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
- 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 Part 62: Subpart OOO – Federal Plan Requirements for Municipal Solid Waste Landfills that Commenced Construction on or Before July 17, 2014, and have not been Modified or Reconstructed Since July 17, 2014
- 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 9:00 a.m. on November 8, 2023, EPA inspectors arrived at the Facility for a CAA Inspection and conducted an opening conference. The FCRLF was represented by Andrew Clark – Environmental Manager, Ron Kimble – Landfill Manager, Dale Ballenger – Landfill Operations Manager, Darrin Dillah – Consultant, also present from VADEQ was Darren Shelhamer – Air Inspector. EPA inspectors, Alex Everhart – Environmental Scientist, and Carly Joseph – Environmental Scientist, presented their credentials and explained the purpose of the visit was to conduct a CAA evaluation 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 the time of the inspection, FCRLF did not claim any photos or documentation as CBI.

EPA Inspectors explained to the Facility that the inspection was part of a National Enforcement and Compliance Initiative (NECI) for Mitigation Climate Change, with a focus on methane emissions from landfills, and 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 surface emission monitoring (SEM) would be performed using an Inficon IRwin Methane Leak Detector a FLIR optical gas imaging camera.

## **II. Site Activity/Process Description**

Landfill Manager, Ron Kimble, stated that there are approximately 26 full time employees, six part time employees, and five inmates that work at the landfill. He stated that no contractors are used in the daily operations of the FCRLF. He stated that the landfill also accepts household MSW, CDD waste, and only nonfriable asbestos from the city of Winchester, Frederick County and Clark County. He also stated that the Landfill operates as an enterprise fund. He stated that portions of the of the FCRLF property are owned by the City of Winchester and Frederick County.

Environmental Manager for FCRLF, Andrew Clark, stated that the FCRLF consists of three separate permitted landfills; Solid Waste Permit 40 Landfill, Solid Waste Permit 529 Landfill and Solid Waste Permit 591 Landfill.

**Solid Waste Permit 40 Landfill:** (Title V permit source EU-1) was permitted in 1977 and began receiving waste in 1979. EU-1 is approximately 57 acres and received approximately 1.4 million megagrams of MSW. EU-1 stopped receiving waste in 1993 and was certified closed in 1994. He stated the Landfill has two separate mounds and approximately half of the landfill was closed using a low density polyethylene liner and the remainder of the landfill was closed with a clay cap.

**Solid Waste Permit 529 Landfill:** (Title V Permit source EU-2) is approximately 89 acres and began receiving waste in 1993. Mr. Kimble stated that on Monday – Friday only MSW is placed in EU-2 and on Saturdays all MSW and CDD is placed in EU-2. Mr. Kimble stated that some of the landfill is constructed with a geosynthetic clay liner (GCL), and other portions are just clay and that all of EU-2 is lined with a high-density polyethylene liner (HDPE). He stated that EU-2 is permitted with four phases (Phases 1 through 4). Phase 1 Cell A is six (6) acres and is closed and capped; Phase 1 Cells B, C and D total 18 acres, and all cells are closed. Phase 2A is eight (8) acres and is active; Phase 2B is 11 acres and is active. Cell 3A has been constructed and received its permit to operate in 2022 but no waste has been placed in this cell as of the inspection. The future Phase 3 is 30 acres and Phase 4 is 16 acres. EU-2 has a permitted capacity of 16.63 million cubic yards and as of the end of 2022 it had 11.68 million cubic yards of air space remaining which is approximately 34 years. 131,000 tons of waste was disposed on in EU-2 in calendar year 2022. Mr. Kimble stated that the site is approved for and utilizes tarps and tire chips as alternate daily covers. Mr. Ballenger, Landfill Operations Manager stated that FCRLF attempts to keep the working face of the landfill to a 100 square foot area.

**Solid Waste Permit 591 Landfill:** (Title V Permit source EU-3) is an active CDD landfill that began operating in 1998. Mr. Kimble stated that some of the landfill is constructed with GCL, and other portions are just clay and that there are no sections of EU-3 that have any HDPE liner. EU-3 is approximately 47 acres and has a design capacity of approximately 4.7 million cubic yards. As of the end of 2022 approximately 2.63 million cubic yards of air space remains which is approximately 16 years. In calendar year 2022, 55,000 tons of waste was disposed in EU-3. Mr. Kimble stated that CDD waste loads are not segregated or otherwise tracked as non-degradable waste and the annual waste disposal tonnages to the CDD landfill include all degradable and non-degradable CDD waste.

Mr. Clark stated that there are no leachate storage tanks at the FCRLF but there are four leachate ponds with a total holding capacity of approximately 10 million gallons. He stated that all the leachate goes through a pretreatment, polishing, and aeration before being discharged for offsite treatment by Opequon Water Reclamation. Mr. Clark stated that leachate discharge is 12-20 million gallons annually depending on the amount of precipitation for the year. He stated that the leachate is sampled once per week for discharge parameters, and once per year for volatile organic chemicals. Mr. Kimble stated that the facility is approved for leachate recirculation; however, it currently chooses not to and has not been done in the last 10 years.

There are three emergency compression ignition engine/generators (gensets) located on-site. EU-5 is a 100 kW Kohler/John Deere model 100ROZJ/6059TF003 that and was constructed prior to June 12, 2006, and provides emergency power to the leachate pump at EU-2. EU-6 is an 86 kW Kohler/John

Deere model 100REOZJD/4045HF285 that and provides emergency power to the office and scale house. EU-7 is a 60 kW Marathon/John Deere model 284PSL1742/4024HF285B that and provides emergency power to the leachate pumps for EU-3. Mr. Kimble stated that James River Equipment performs all the required maintenance on the gensets. He stated that monthly the hour meter readings are recorded, and the units are refueled if needed. He stated that all three emergency generators start up and run on their own weekly for 15 minutes as a test.

Mr. Clark stated that the FCRLF has one 5,000-gallon diesel above ground storage tank. He also stated that all deliveries to the 5,000-gallon diesel above ground storage tank are ultra-low sulfur diesel is used at the site. Mr. Clark stated that the FCRLF has one 1,000-gallon gasoline above ground storage tank. He stated that on average the monthly throughput is between 800 and 1,000 gallons and as of October 31, 2023, the annual rolling average was 11,000 gallons per year.

Mr. Clark stated that the FCRLF has not exceeded the 34 Mg/yr threshold in 40 CFR 60 Subpart Cf (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) requiring the installation and operation of a GCCS. He stated that the FCRLF operates a voluntary “proactive” landfill-gas-to-energy (LFGE) system to collect landfill gas generated by the degradation of waste in the landfill and generate electricity. According to Mr. Clark, the LFGE system was originally installed in 2010. He stated the system consists of a one LFG Specialties “candlestick” flare Model CF 82518 (PCD-1) and the two-spark ignition one megawatt Jenbacher gensets Model JGC 320 GS-L (PCD-2 and PCD-3). PCD-1 has a capacity of 40.9 MMBtu/hr and PCD-2 and PCD-3 have a heat input capacity of 9.8 MMBtu/hr. He stated that the LFGE system only draws landfill gas from EU-1 and EU-2. EU-1 has 32 landfill gas extraction wells and that all these wells were initially installed as landfill gas vents in the 1990’s but were later connected to the LFGE system in 2010. EU-2 has 50 landfill gas extraction wells, and they are a mix of vertical and horizontal wells. Mr. Clark stated that the flare does not run continuously and only runs to burn excess gas when both gensets are down for service and/or repair. He stated that the flare typically operates once a month when preventative maintenance is being performed on the gensets with throughput being recorded via a flowmeter and totalizer. He stated that operations and minor routine maintenance on PCD-2 and PCD-3 is performed by a county employee. He stated that each genset can burn approximately 350 SCFM of methane at a concentration of 50%. Mr. Clark stated that the last performance test of the LFGE gensets was on May 19, 2022, and the next performance test was scheduled for the week of November 13, 2023, by Integrity Air Monitoring of Huntersville North Carolina. Mr. Clark stated the most recent LFGE system expansion was completed in July 2023. Mr. Clark indicated that the system generally operates at vacuum of -15 inches of water. Mr. Clark stated that a county employee monitors the landfill gas wellfield monthly for methane, oxygen, and temperature, and make adjustments to maximize gas quality and quantity for electricity generation. Mr. Clark stated that there are currently no pumps in any of the gas extraction wells and dewatering of the wells is not occurring. He stated that liquid levels in the wells are occasionally measured. Mr. Clark stated that the gas to energy facility is about 95% of the electricity generated from the gensets is sold to grid via Rappahannock PJM.

The opening conference concluded at 11:15 a.m.

### **III. Observations**

EPA inspectors were led on a walkthrough of the Facility at 12:15 p.m. by Mr. Kimbel, Mr. Clark, and Mr. Ballenger of FCRL, Mr. Dillah of SCS consultants and Mr. Shelhamer of VADEQ was also present for the walkthrough. EPA inspectors noted photos would be taken and different areas would be viewed with the FLIR camera during the Facility walkthrough (Attachment 2).

The tour began by observing EU-6 which serves as the emergency generator for the scale house and offices. The hour meter reading at that time was 393.3 hours. When driving to EU-3, a gas intercept trench was observed on the west side of EU-1. Mr. Kimble stated it was installed in response to some landfill gas migration showing up in boundary probes in the area. The inspection team then proceeded to the top of EU-3 and observed the filling operations at the CDD landfill. EPA inspectors noted that a water truck was spraying over the CDD waste and Mr. Kimble stated that FCRLF does this to reduce dust from the working face during filling operations and increase compaction. The inspection team was then taken to EU-7 which serves as emergency generator for the leachate pump for EU-3. The hour meter was observed and showed 392 hours and 51 minutes.

Next two leachate ponds were observed, to the east of EU-1 and EU-3. Mr Clark stated that pond to the closest to EU-1 only receives leachate via gravity drain to the pond and the pond to the south can receive leachate from either EU-1 or EU-3. Next EPA inspectors were led to the area east of EU-2, where the pretreatment pond and the polishing ponds are located. FCRLF pretreats the leachate by nitrification, denitrification, and aeration. The pretreatment pond was observed with the FLIR camera, and no emissions were visible. Adjacent to the north side of the leachate pretreatment pond is EU-5. It serves as the emergency generator that provides power to the leachate pump for the EU-2. EU-5's hour meter reading was observed 809.9 hours.

The inspection team was then led to the top/active area of EU-2. One compactor was present on EU-2 compacting waste at the time of the inspection. Mr. Clark stated that the well network is re-evaluated every few years to identify poor producing wells for replacement, expansion of the LFGE system. Mr. Kimble stated that the lower portions of the slope on EU-2 have full final closure on them and the next lift of the slope is expected to be closed in the next two to three years. Erosion rills on the west slope of EU-2 were observed and viewed with the FLIR camera. Landfill gas extraction well 25R was also viewed with the FLIR camera. No emission were visible with the FLIR camera at EU-2. Mr Kimble stated that on average the landfill receives between 320 and 350 trucks per day of waste.

The inspection team was then taken to EU-1 where numerous wells were observed with the FLIR camera, no emissions were visible at the time of inspection. Next the inspection team was led to the two above ground storage tanks. The diesel and gasoline storage tanks were both closed at the time of inspection. The tank vents and lids of both the diesel and gasoline storage tanks were observed with the FLIR camera, and no emissions were noted. The inspection team then moved the enclose that encompassed PCD-1, PCD-2 and PCD-3. At the time of inspection, the flare skid and PCD-1 were not in

operation. The flare skid and gas compression skids were observed with the FLIR camera, and no emissions were detected. The flowmeter on the genset gas compression skid showed a flow of 676 standard cubic feet per minute (SCFM) at the time of inspection. The gas analyzer was observed, and it was displaying 55.1 % methane and 0% oxygen. Only one blower was operating producing a system vacuum of 16.4 inches of water. PCD-2 was in operation at the time of inspection it was producing 999 kw of electricity at 1800 rpms. The engine hour totalizer showed 28,528 hours. Mr. Clark stated that PCD-2 was overhauled by the manufacturer at 60,000 hours and at that time they reset the hour meter. PCD-3 was operating and producing 997 kw of electricity at 1798 rpms. The hour totalizer on PCD-3 showed 31,481 hours. Mr. Clark stated that the system is set to shutdown if methane percentage drops below 40% methane.

The facility walkthrough ended at 3:20 p.m. at which point the inspection team returned to the conference room and reviewed some records. The records review from day one is discussed in the "Records Review" portion of the inspection report. Following the records review the inspection team held a brief closeout meeting for the day and to inform FCRLF of the plans for the surface emission monitoring (SEM) the next day. Day one (11/8/23) of the inspection ended at 3:46 p.m. and EPA inspectors left the site.

EPA inspectors arrived for Day Two (11/09/23) of the inspection at 8:30 a.m. and held a brief opening conference. Mr. Clark, Mr. Kimble, Mr. Ballenger, and Jacob Gaither – Consultant were present for day two. EPA inspectors informed FCRLF of the planned areas to perform SEM monitoring as part of the CAA evaluation of the facility. EPA inspector, Alex Everhart performed a precision calibration of the Inficon IRwin methane leak detector at 9:19 a.m. At 9:30 a.m. the SEM began with a check of the background levels of methane upwind from the FCRLF. The IRwin indicated a background of level 83 parts per million (ppm) of methane. Mr. Clark then led EPA inspectors to EU-2 to start the SEM. EPA inspectors began walking northeast down the slope of EU-2 taking several measurements along the way at the surface of the landfill and at penetrations in the landfill surface. EPA inspectors continued working in a circular pattern. After performing SEM at EU-2 the inspection team moved to EU-1. Several measurements were made along the surface of the landfill as well as at penetrations. The following table is a summary of the SEM results.

| Location           | Time  | Measurement in PPM |
|--------------------|-------|--------------------|
| HC10B and HC11B    | 9:29  | 583                |
| East slope of EU-2 | 9:41  | 685                |
| EW-17 (EU-2)       | 10:04 | 1258               |
| EW-16 (EU-2)       | 10:08 | 525                |
| EW-27 (EU-1)       | 11:04 | 2028               |
| EW-14 (EU-1)       | 11:22 | 1567               |

The SEM monitoring concluded at 12:12 p.m. on November 9, 2023.

#### IV. Records Review

The remainder of records review commenced after the SEM monitoring.

Below are the records requested and what was provided:

1. Facility plot plan which depicts the entire landfill surface and the existing gas collection system;  
*This information was provided during the inspection.*
2. Site map showing all of the permitted landfill cells;  
*This information was provided during the inspection.*
3. Copy of the most recent Title V permit issued by the VA DEQ, if an application has been submitted but the permit has not been renewed, provide a copy of the permit application;  
*This permit was provided for review during the inspection.*
4. The amount of waste in place (tons) in each cell and the total waste in place (tons);  
*This information was provided verbally during the inspection.*
5. The current design capacity (Mg) and the date(s) the design capacity was modified, if applicable;  
*This information was provided verbally during the inspection.*
6. Copy of the NMOC emission rate report which includes the NMOC emission (Mg/yr) rate and supporting calculations, include copies of any Tier II site specific testing;  
*The 2022 FCRLF Tier 2 report was provided. It stated that the NMOC in 2022 was 28.09 Mg/yr.*
7. Provide a record of the facility's actual annual air emissions, from January 1, 2019 through June 30, 2023, for all regulated air pollutants (NO<sub>x</sub>, SO<sub>x</sub>, CO, VOCs, HAPs, and PM);  
*This information was provided during the inspection.*
8. Provide a listing of all onsite boilers, emergency generators and all other internal combustion sources. For each combustion unit onsite provide:
  - a. The make and model;
  - b. The date of installation;
  - c. Size or rating (MMBtu/hr, HP, kW, etc.);
  - d. Fuel combusted monthly since 2018 to present (gallons, MMcf, etc.);
  - e. Provide any temperature or flow monitoring records for the existing flares since 2018.*This information was provided during the inspection.*
9. Copies of any performance tests conducted on any source to determine emission rates, concentrations or compliance since 2000;  
*This information was provided during the inspection.*
10. Identify any periods when the GCCS was not operable or was out of service since 2018 to present;  
*This information is not recorded.*
11. Records of monthly wellhead pressure, temperature, Nitrogen or Oxygen monitoring since 2018 to the present;  
*This information was provided during the inspection. EPA inspectors reviewed October 2020, September 2021 and January 2023 logs.*

12. Any notifications of compliance status, or periodic reports submitted to EPA or VA DEQ pursuant to 40 CFR Part 60 Subpart IIII, 40 CFR Part 60 Subpart JJJJ, 40 CFR Part 62, 40 CFR Part 63 Subpart ZZZZ, or 40 CFR Part 63 Subpart CCCCCC since 2018;  
*Annual emission reports were provided.*
13. Any initial notifications submitted to EPA or VA DEQ pursuant to Part 63 Subpart ZZZZ, or 40 CFR Part 63 Subpart CCCCCC;  
*The 2010 initial notification for the LFGE gensets was provided.*
14. Copies of all Title V Annual/Semiannual compliance certifications from 2018 to present;  
*These reports were provided during the inspection.*
15. Copies of any enforcement actions issued either by EPA or VA DEQ for any media;  
*Two NOVs for leachate releases were provided.*
16. Monthly throughput records for the Gasoline Dispensing Facility;  
*This information was provided during the inspection.*
17. Maintenance records and hour meter logs for all engines subject to or 40 CFR Part 63 Subpart ZZZZ; and  
*This information was provided during the inspection and EPA inspectors requested electronic copies of this data.*
18. Any annual Greenhouse Gas (GHG) reporting submitted to the EPA or VADEQ.  
*The 2018-2022 reports were provided during the inspection for review.*

## V. Closing Conference

After the records review, EPA inspectors, Mr. Clark, Mr. Kimble, Mr. Ballenger, Jacob Gaither had 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 3:15 p.m.

The following have been identified as *potential* issues during the inspection. They are issues that require either further investigation by EPA or additional information or explanation by FCRLF.

- When reviewing the totalizer readings for the flare and generators the total flow value from the flow meters seem to reset at random frequencies and not rolling over. This could affect tracking of throughput as required by FCRLF's Title V permit.
- PCD-2 and PCD-3 don't appear to have hourly meters that are non-resettable.
- A review of the May 24, 2022, Tier 2 NMOC Emission Rate Report indicated that CDD waste placed in EU-3 was not included in the waste disposal totals used in calculating the NMOC as specified in 40 CFR 60.35f(a)(3).

Unique Project #: 3E23CA9A

## **VI. List of Attachments**

- Attachment 1:      Email correspondence to Andrew Clark of records requested to review during inspection
- Attachment 2:      Inspection Sign-in Sheets
- Attachment 3:      Photo Log

## Everhart, Alex

---

**From:** Everhart, Alex  
**Sent:** Monday, November 6, 2023 3:28 PM  
**To:** jclark@fcva.us  
**Cc:** Joseph, Carly; Shelhamer, Darren T. (DEQ)  
**Subject:** Clean Air Act Inspection Records Request  
**Attachments:** EPA Records request Fredrick County Regional Lادfill.pdf

Hi Andrew,

As a follow up to our call I am confirming that EPA (myself and 1 other EPA inspector) will be onsite Wednesday 11/8/23 at 9:00 am for a Clean Air Act Inspection. We will have Hard hat, safety toe boots, and high visibility vests with us for the inspection. Darren Shelhammer from VA DEQ also plans to join in on the inspection.

I have attached a list of records that we would like to see as part of the inspection.

Thanks!



**Alex Everhart**

Enforcement Inspector

Air Section – Air & RCRA Branch

Enforcement & Compliance Assurance Division

US EPA Mid-Atlantic Region

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Frederick County Regional Landfill

EPA Clean Air Act Inspection

November 8-9, 2023

Records Requested Prior to Inspection

1. Facility plot plan which depicts the entire landfill surface and the existing gas collection system;
2. Site map showing all of the permitted landfill cells;
3. Copy of the most recent Title V permit issued by the VA DEQ, if an application has been submitted but the permit has not been renewed, provide a copy of the permit application;
4. The amount of waste in place (tons) in each cell and the total waste in place (tons);
5. The current design capacity (Mg) and the date(s) the design capacity was modified, if applicable;
6. Copy of the NMOC emission rate report which includes the NMOC emission (Mg/yr) rate and supporting calculations, include copies of any Tier II site specific testing;
7. Provide a record of the facility's actual annual air emissions, from January 1, 2019 through June 30, 2023, for all regulated air pollutants (NO<sub>x</sub>, SO<sub>x</sub>, CO, VOCs, HAPs, and PM);
8. Provide a listing of all onsite boilers, emergency generators and all other internal combustion sources. For each combustion unit onsite provide:
  - a. The make and model;
  - b. The date of installation;
  - c. Size or rating (MMBtu/hr, HP, kW, etc.);
  - d. Fuel combusted monthly since 2018 to present (gallons, MMcf, etc.);
  - e. Provide any temperature or flow monitoring records for the existing flares since 2018.
9. Copies of any performance tests conducted on any source to determine emission rates, concentrations or compliance since 2000;
10. Identify any periods when the GCCS was not operable or was out of service since 2018 to present;
11. Records of monthly wellhead pressure, temperature, Nitrogen or Oxygen monitoring since 2018 to the present;
12. Any notifications of compliance status, or periodic reports submitted to EPA or VA DEQ pursuant to 40 CFR Part 60 Subpart IIII, 40 CFR Part 60 Subpart JJJJ, 40 CFR Part 62, 40 CFR Part 63 Subpart ZZZZ, or 40 CFR Part 63 Subpart CCCCCC since 2018;

13. Any initial notifications submitted to EPA or VA DEQ pursuant to Part 63 Subpart ZZZZ, or 40 CFR Part 63 Subpart CCCCCC;
14. Copies of all Title V Annual/Semiannual compliance certifications from 2018 to present;
15. Copies of any enforcement actions issued either by EPA or VA DEQ for any media;
16. Monthly throughput records for the Gasoline Dispensing Facility;
17. Maintenance records and hour meter logs for all engines subject to or 40 CFR Part 63 Subpart ZZZZ; and
18. Any annual Greenhouse Gas (GHG) reporting submitted to the EPA or VADEQ.

## Inspection Sign-In Sheet

**Facility:** Frederick County Regional Landfill

**Date:** 11/8/23

| Name                | Affiliation        | Title                              | Phone Number & Email                              |
|---------------------|--------------------|------------------------------------|---------------------------------------------------|
| Alex<br>Everhart    | EPA                | Inspector                          | 919-720-2088<br>Everhart, Alex@EPA.GOV            |
| Darren<br>Shelhamer | VDEQ               | Air Inspector                      | darren.shelhamer@deg.virginia.gov<br>215-814-2127 |
| Carly Joseph        | EPA                | Inspector                          | joseph.carly@epa.gov<br>540-665-5658              |
| Andrew Clark        | Fred Co. Landfill  | Environmental<br>Manager           | aclark@fcva.us                                    |
| Ron Kimble          | Fred Co Landfill   | Landfill Manager                   | 540 665-5658<br>rkimble@fcva.us                   |
| Darrin Dillah       | SCS Engineers      | Project Director/SVP               | 703 798 6399<br>ddillah@scsengineers.com          |
| Dale Ballenger      | Fred. Co. Landfill | Land Fill<br>Operations<br>Manager | 540-931-1844<br>dballeng@fcva.us                  |
|                     |                    |                                    |                                                   |
|                     |                    |                                    |                                                   |
|                     |                    |                                    |                                                   |
|                     |                    |                                    |                                                   |

[illegible]

# Frederick County Regional Landfill

**Date:** 11/9/23

## Phone Number & Email

919-720-2088

540-665-5658

DIS-814-2127

571-495-7076

840-665-5658

rkimsk@fcva.us

# Attachment 3:

# PHOTO LOG

Facility: Frederick County regional Landfill

Location: 280 Landfill Road Winchester, VA 22638

Inspection Date: 11/8-11/09/2023

EPA Inspector(s): Alex Everhart, Carly Joseph

Photographer: Carly Joseph



Photo Number: 1

Photo Description: Well EW-18 on EU-2



Photo Number: 2

Photo Description: Northwest slope of EU-2



Photo Number: 3

Photo Description: EU- 2 Working face

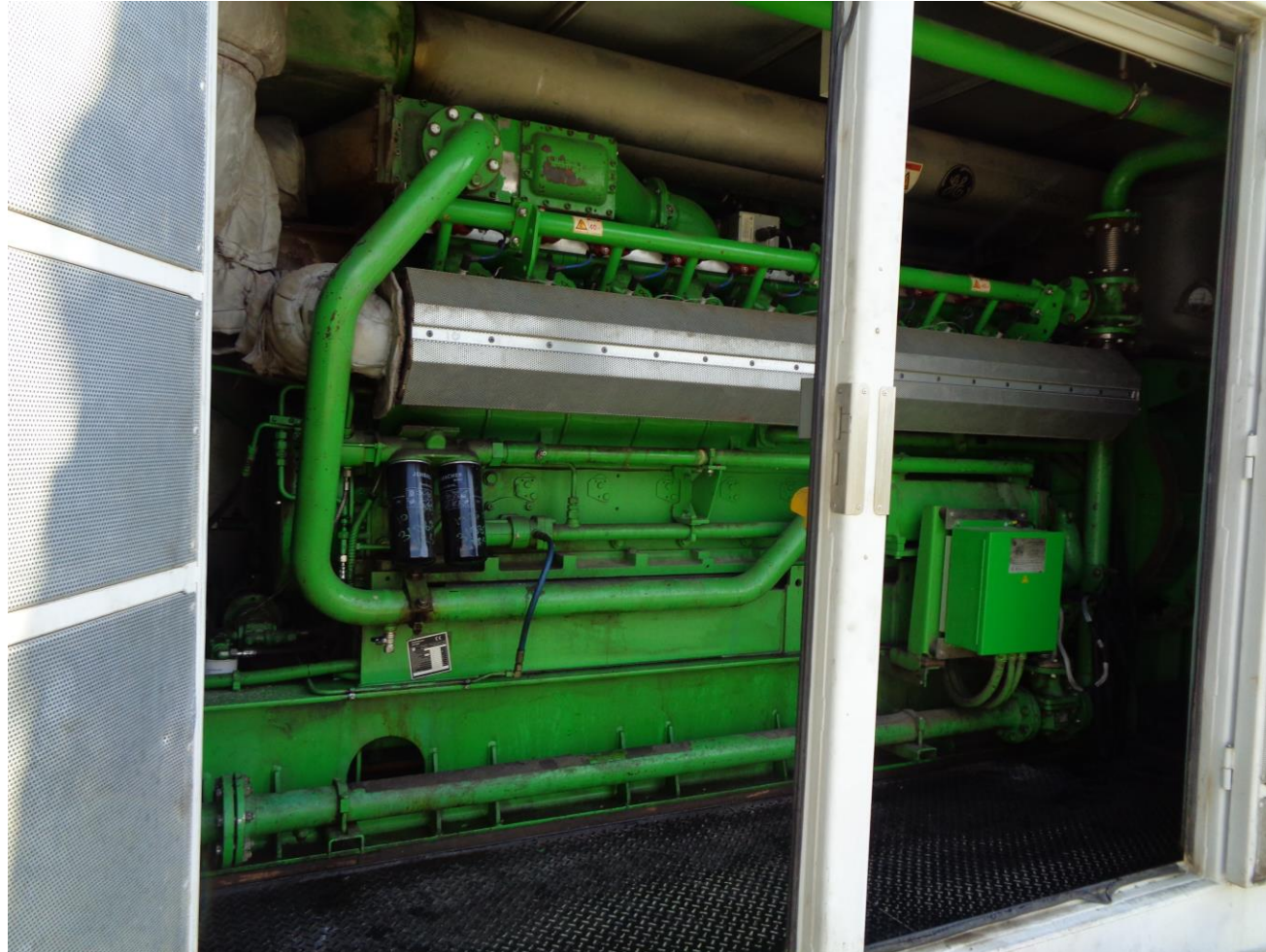


Photo Number: 4

Photo Description: Inside enclosure viewing engine of PCD-3



Photo Number: 5

Photo Description: PCD-3 Engine nameplate

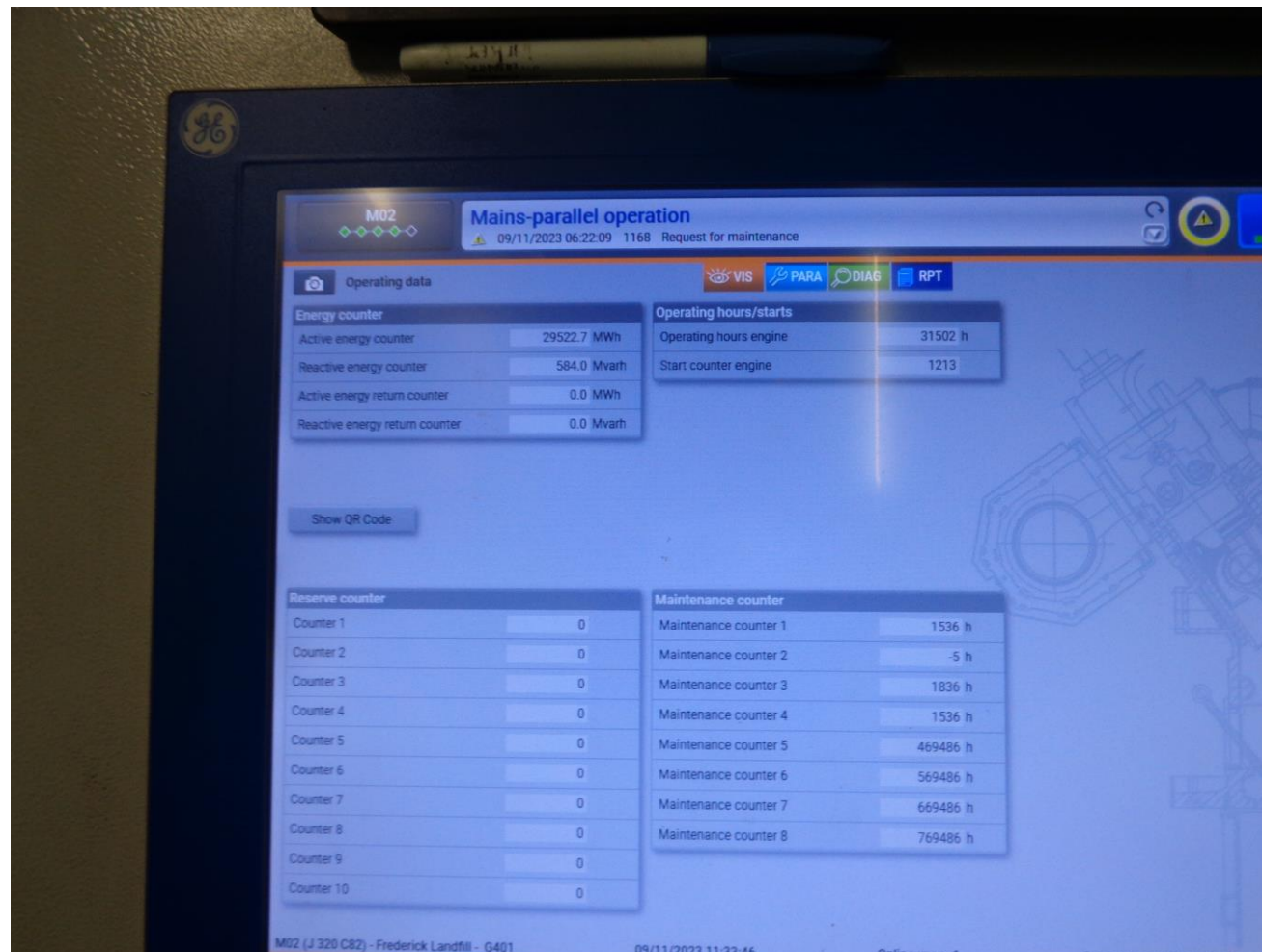


Photo Number: 6

Photo Description: PCD-2 Control Screen

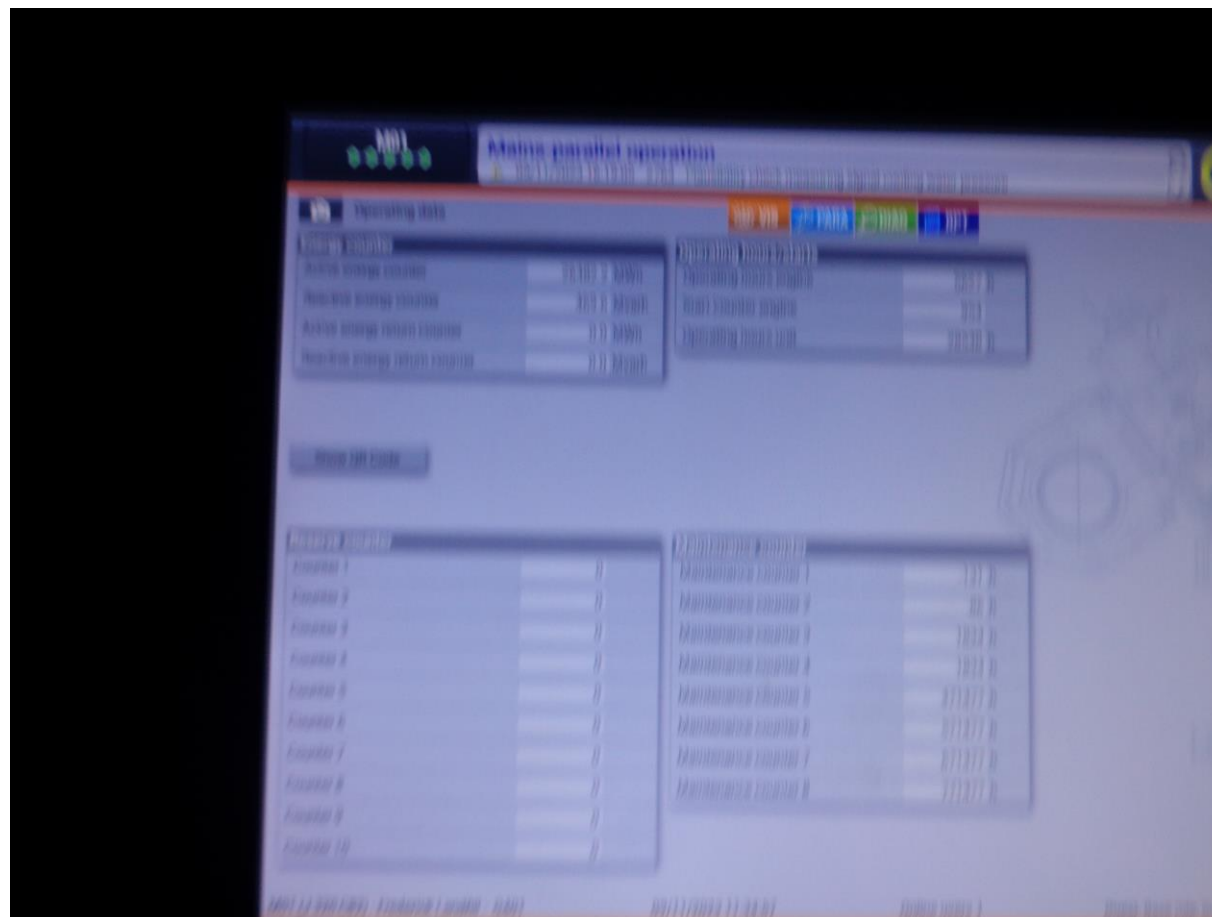


Photo Number: 7

Photo Description: PCD-3 Control Screen

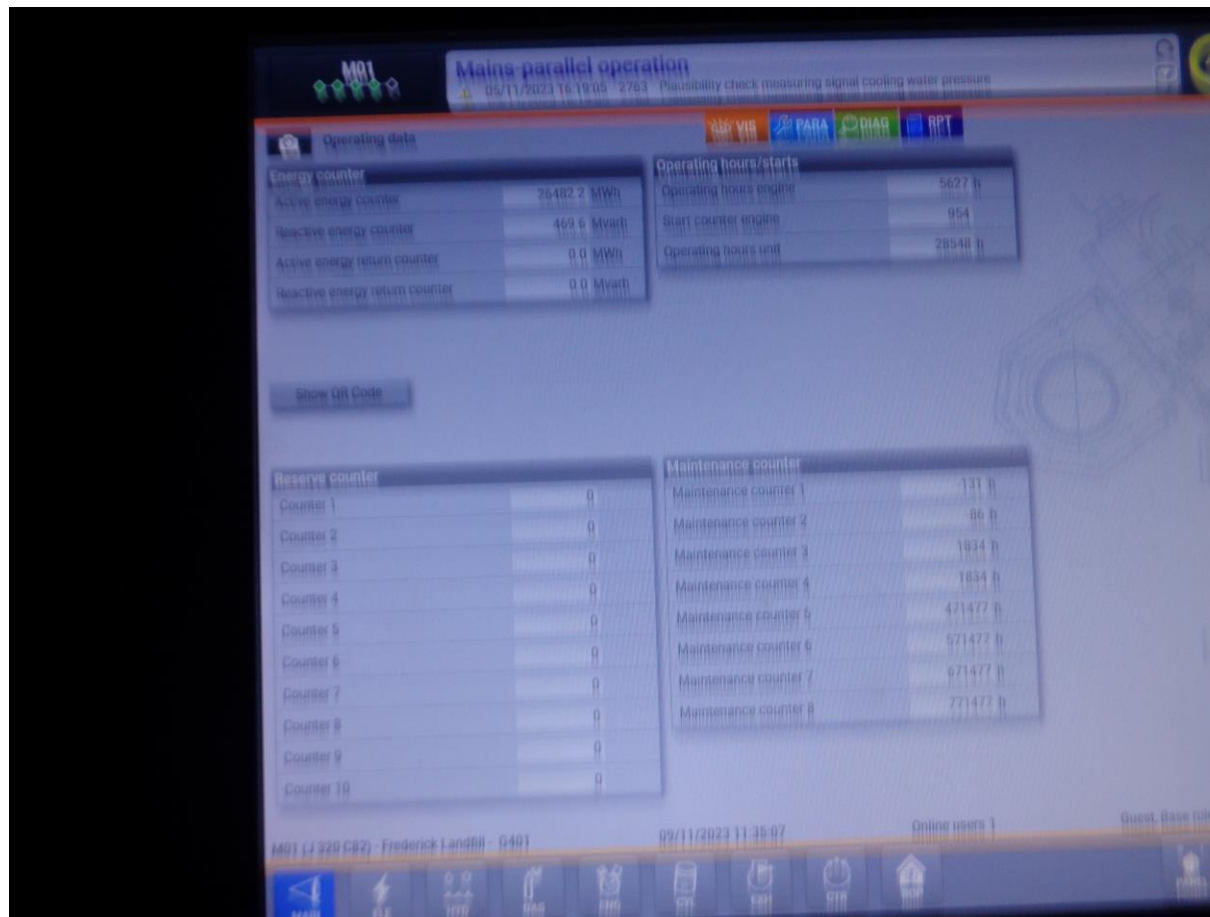


Photo Number: 8

Photo Description: PCD-3 Control Screen

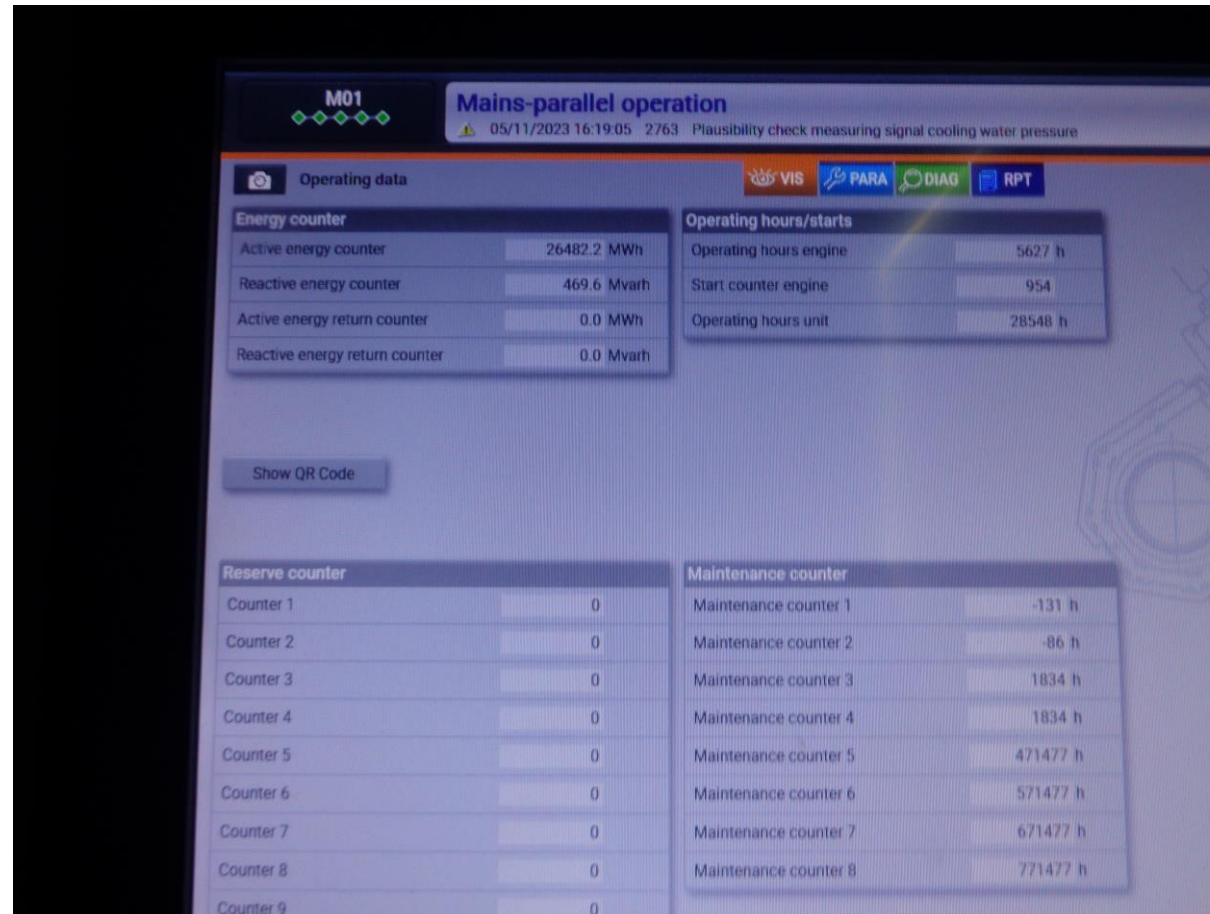


Photo Number: 9

Photo Description: PCD-3 Control Screen

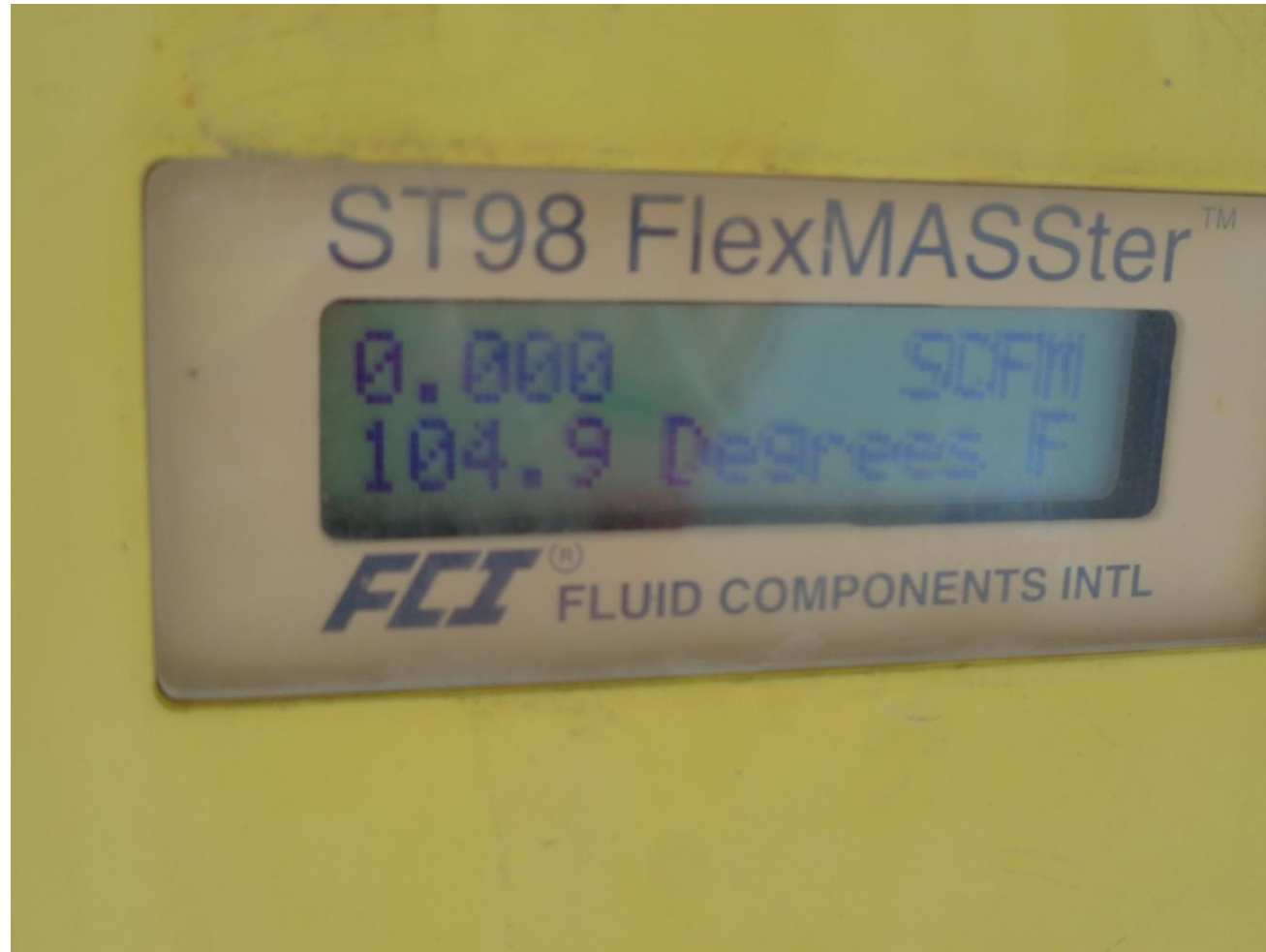


Photo Number: 10

Photo Description: PCD-1 (Flare) Flowmeter

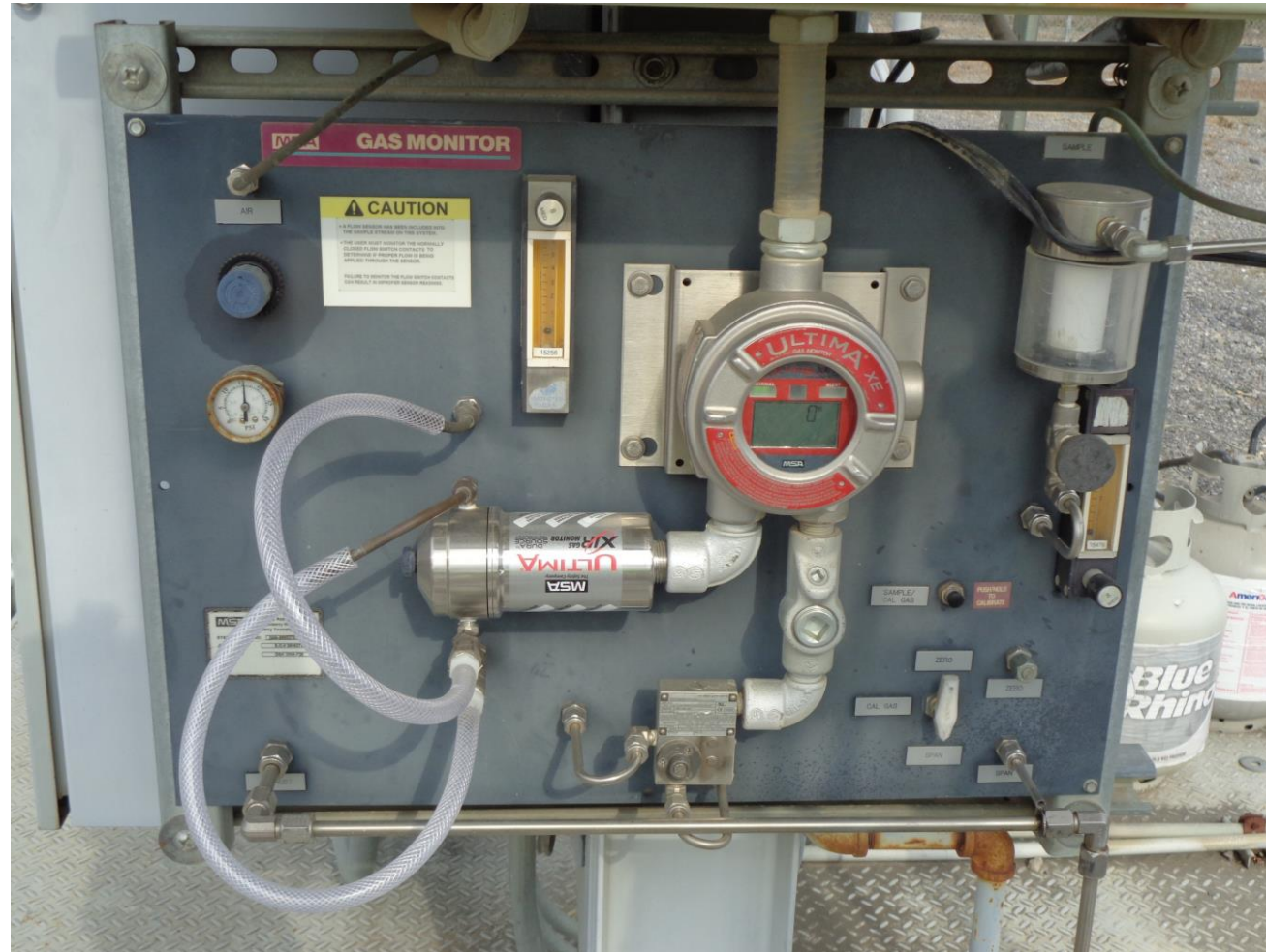


Photo Number: 11

Photo Description: PCD-1 (Flare) Gas Analyzer



Photo Number: 12

Photo Description: Compression Skid Flowmeter



Photo Number: 13

Photo Description: Compression Skid Gas Analyzer



Photo Number: 14

Photo Description: Siloxane Treatment Tanks



Photo Number: 15

Photo Description: Overview of Compression and Flare Skids



Photo Number: 16

Photo Description: Overview of PCD-2 and PCD-3



Photo Number: 17

Photo Description: EU-1 Tier 2 Sample Port



Photo Number: 18

Photo Description: EU-2 Tier 2 Sampling Port



Photo Number: 19

Photo Description: EU-2 and EU-3 Combined Tier 2 Sample Port



Photo Number: 20

Photo Description: EU-2 and EU-3 Combined Tier 2 Sample Port



Photo Number: 21

Photo Description: EU-5 Hour Meter



Photo Number: 22

Photo Description: EU-5 Hour Meter



Photo Number:23

Photo Description: EU-5 Overview

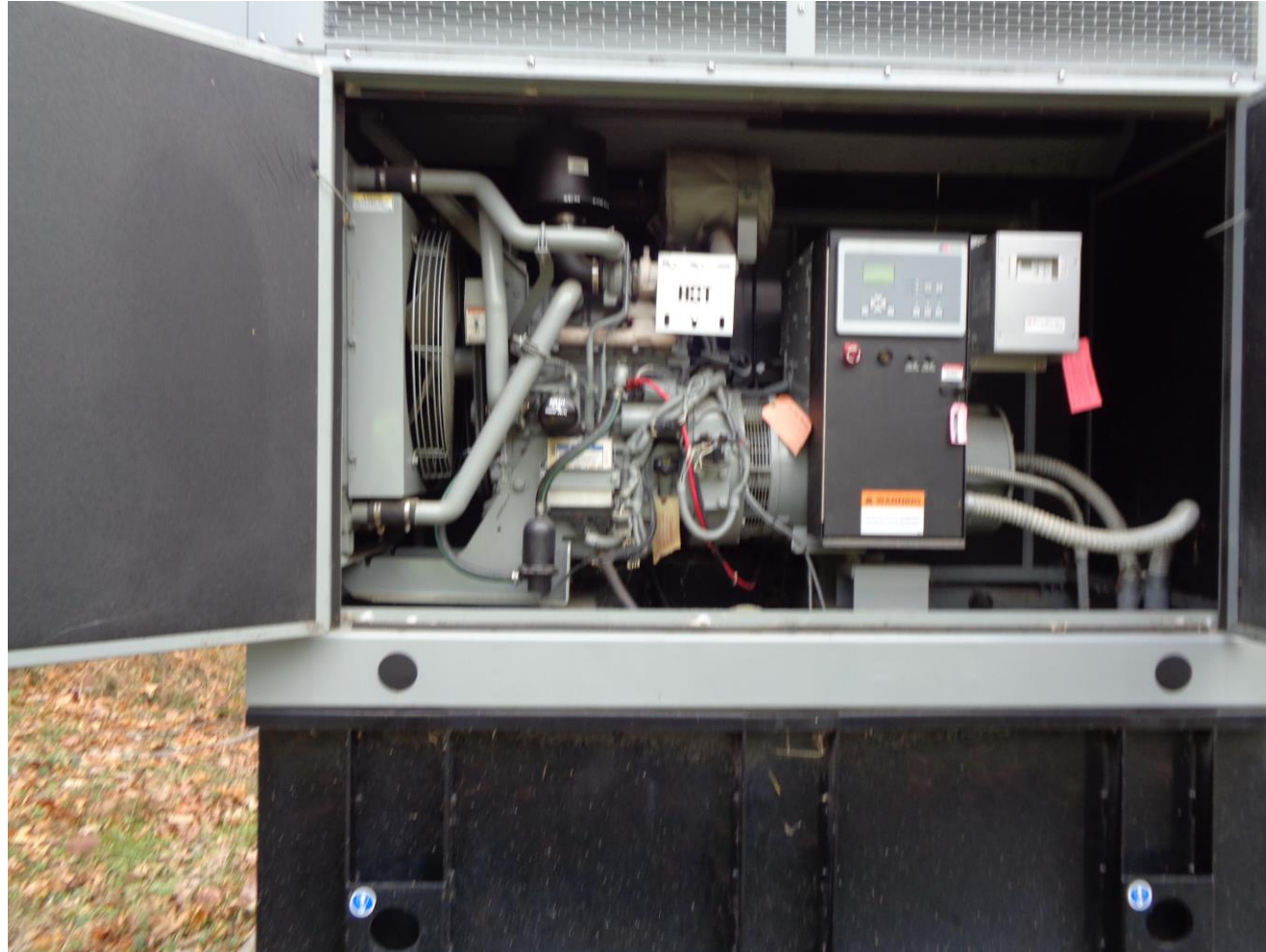


Photo Number: 24

Photo Description: EU-7 Overview



Photo Number: 25

Photo Description: EU-7 Hour Meter



Photo Number: 26

Photo Description: EU-6 Overview



Photo Number: 27

Photo Description: EU-6 Hour Meter