



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Four Penn Center – 1600 John F Kennedy Blvd
Philadelphia, Pennsylvania 19103-2852

Report Title: Clean Air Act Inspection of Waste Management Lake View Landfill
Inspection Date(s): 09/27-28/2023
Regulatory Program(s): SIP, NSPS, MACT
Company Name: Waste Management
Facility Name: Lake View Landfill
Facility Location: 851 Robinson Rd E
Erie, PA 16509
Latitude: 42.059457 **Longitude:** -80.014484
County/Parish: Erie
AFS/ICIS-Air Number: PA000258605
Permit Number: 25-00920
NAICS Code: 562212 **SIC:** 4953
Unique Project #: 3E23CA039A

Facility Representatives*:

Point of Contact

Craig Hahlen, District Manager
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Tom Spears, Gas Operations Manager
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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:

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EPA Inspector

Signature

Alex Everhart

Date

1600 John F Kennedy Blvd
Philadelphia, PA 19103-2852

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 Waste Management - Lake View Landfill (LVLV or Facility) to verify compliance with applicable State and Federal Regulations. The Pennsylvania Department of Environmental Protection (PADEP) was notified of the inspection on September 11, 2023, via email. On September 22, 2023, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Craig Hahlen, District 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 Lake View Landfill is located at 851 Robinson Rd. East, Erie, PA 16509, and is privately owned and operated by Waste Management. The Facility encompasses approximately 110 acres, while the landfill footprint covers approximately 72 acres. The LVLV's current waste acceptance operational hours are from 6:30 a.m. to 3:30 p.m. Mondays to Fridays. The LVLV began accepting municipal solid waste (MSW) and construction and demolition (C&D) waste in 1972. 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 31.5 million tons.

The LVLV's most recent Title V permit (25-00920) renewal was issued by PADEP and became effective on April 18, 2022, this permit expires on March 31, 2027. The Facility is classified as major source for volatile organic compounds (VOCs). The Facility is subject to, or potentially subject to the following federal regulations:

- 40 CFR Part 63: Subpart AAAAA – 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 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 8:30 a.m. on September 27, 2023, EPA inspectors arrived at the Facility for a CAA Inspection and conducted an opening conference. The LVLF was represented by Craig Hahlen – District Manager, Seth Goodlin – Gas Operations Supervisor, Tom Spears – Gas Operations Manager, and Sandy DiSalvo – Environmental Manager. Also present from PADEP was Melanie Lewis – Air Quality Specialist. EPA inspectors, Alex Everhart – Environmental Scientist, Paul Arnold – Environmental Engineer, 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 that time, LVLF stated the only potential CBI would be customer records, no other CBI claims of any photos or documentation were made.

EPA Inspectors explained to the Facility that the inspection was part of a National Enforcement and Compliance Initiative (NECI) 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 either an Inficon IRwin Methane Leak Detector or a Toxic Vapor Analyzer TVA2020.

II. Site Activity/Process Description

LVLF is privately owned and operated by Waste Management. LVLF's current waste acceptance operational hours are from 6:30 a.m. to 3:30 p.m. Mondays to Fridays; however, they are occasionally open on Saturdays as a makeup day if a holiday falls during the week. There are 12 landfill employees and two landfill gas system employees. All employees are Waste Management employees no contractors are used in the daily operations of the LVLF.

District Manager for the LVLF, Craig Hahlen, stated that the site was originally owned and operated by a local farmer as a “dump” for the surrounding community. Waste Management purchased the 110-acre site in the early 1970s and began operating the landfill in 1972. Approximately 72-acres of the site is currently used as a landfill consisting of nine cells, three active cells; and six closed cells. Waste has been accepted in the nine cells over the following

periods, Cell 1 from 1983 – 1987; Cell 2 from 1986 – 1991; Cell 3 from 1991 – 2002; Cell 4 from 1993 – 2009; Cell 5 from 1994 – 2009; Cell 6 from 2011 – 2019; Cell 7 from 2012 – 2020; and Cell 8A from 2022 to present. Mr. Hahlen stated that approximately 70 acres of the site is under final cover consisting of a geosynthetic clay liner, high density polyethylene (HDPE) liner and cover soil; however, it has not received closure certification. The current design capacity of the landfill is approximately 37 million cubic yards, of which approximately 17 million cubic yards have been used. Mr. Hahlen stated that the full footprint of the property had not yet been permitted and the facility had received its most recent permit for expansion in 2010. The LVLFF accepts mostly household municipal solid waste (MSW); however, they do receive some construction and demolition debris (C&D) waste, and friable and nonfriable asbestos from Erie County. Annually approximately 300,000 tons of waste is disposed; however, this varies from year to year based on the economy among other factors. Mr. Hahlen stated that the expected closure date based on the design capacity waste disposal rates is 2071. Mr. Hahlen stated that on average approximately 1.5 - 2 million gallons of leachate are produced monthly. There are three leachate tanks and a leachate lagoon; however, they are not routinely used as leachate from the landfill piped directly to the Erie wastewater treatment plant but can be utilized in the event of an upset at the water treatment plant. There are two emergency compression ignition gensets located on-site, each providing emergency power to approximately half of the facility. Based on the most recent capacity study, waste compaction at the facility is 0.74 tons per cubic yard. However, Mr. Hahlen stated that alternate daily covers have been approved for the facility.

The Facility operates a Gas Collection and Control System (GCCS) to collect landfill gas generated by the degradation of waste in the landfill. According to Mr. Hahlen, the GCCS was originally installed in 1991. In 1994, the two-spark ignition Caterpillar (CAT) engine/generators (gensets), sources IDs C101A and C101B, were installed as part of a gas to energy project. Gas Operations Supervisor, Seth Goodlin, stated that the gas system consists of 154 gas extraction wells. There are nine horizontal collectors and eight wells that are connected to leachate cleanouts. The LVLFF has two landfill gas flares, one enclosed flare (C101) permitted and rated for 2800 standard cubic feet per minute (SCFM), and one open candlestick flare (C101C) rated for 1175 SCFM but only permitted to burn up to 700 SCFM. The LVLFF gensets, sources IDs C101A and C101B, are each rated at 3.05 megawatts. Mr. Goodlin stated that the flares burn excess gas when either of the gensets are down for service or repair. He stated that the flares typically run once a month when preventive maintenance is being performed on the gensets. He stated that each genset can burn approximately 850 SCFM of methane at a concentration of 50%. According to Mr. Goodlin, the GCCS is operated in all areas of the landfill except in the immediate vicinity of the working face in Cell 8. Mr. Goodlin stated that GCCS wellfield O&M is performed monthly by the 15th of each month with any follow occurring by the 20th. Mr. Hahlen stated that the LVLFF has a formal cover integrity monitoring program, and it is completed in conjunction with the monthly GCCS wellfield O&M events. EPA inspectors were provided a copy of a recently completed form. Mr. Goodlin stated that, in the event of any GCCS shutdown, the Facility has an auto-dialer system which alerts the responsible staff to restart the

system. He stated that it is Waste Management policy that either a flare or genset be up and running within one hour of the shutdown. Mr. Goodlin stated the facility had exceeded the 34 Mg/yr threshold required for the installation and operation of a GCCS under 40 CFR Part 60, Subpart XXX, and that surface emission monitoring (SEM) is completed on a quarterly basis. He stated all landfill gas wellfield O&M and SEM events are performed by Waste Management employees who are a part of the renewal energy group. Mr. Goodlin stated that there are currently no pumps in any of the gas extraction well and dewatering of the wells is not occurring. He stated that liquid levels in the wells are measured on an annual basis. He also stated that the facility has no approved higher operating values for temperature or pressure. Mr. Goodlin stated that the gas to energy facility is about 95% self-sustained with the electricity generated from the genset and the remainder is sold to Penn electric to go back to the grid. He stated that the rate which Penn Electric pays varies and there is no contract or agreement in place requiring the LVLF to supply a certain amount of electricity.

The opening conference concluded at 10:25a.m.

III. Observations

EPA inspectors were led on a walkthrough of the Facility at 10:33 a.m. by Mr. Hahlen, Mr. Goodlin, and Tom Spears of Waste Management and Melanie Lewis of PADEP was also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 2).

The tour began by visiting the gas to energy facility at the Northwest corner of the property. We met with the plant operator who took us into the control room where we observed the control screen showing flow and gas quality to both gensets. At the time of inspection both gensets were running and total flow was 1698 SCFM. The gas analyze was observed and the gas quality was noted at 54.5% methane and 1.5% oxygen. The system had a vacuum of -22" of H₂O at the time of observation. EPA inspectors then observed the kilowatt readings output for gensets one and two and they were 2694 kilowatts and 2676 kilowatts respectively. EPA inspectors were then led into the "engine room" where both gensets were located and operating. Engine Status display for each genset was observed, Engine #1 was running at 97% load and 902 RPM and Engine #2 was running at 96% load and 901 RPM. After leaving the gas to energy facility EPA inspectors proceeded east to the emergency generator shed. EPA inspectors observed one 231 horsepower compression ignition CAT 3208 emergency genset (Source 103) Mr. Hahlen stated that the generator is checked on a weekly basis and operating hours are observed and recorded on a weekly log sheet. The hour meter at the time of inspection was 1169 hours and this matched the weekly log sheet located with the emergency genset building. EPA inspectors then proceeded north to the leachate storage area (Source 102) where two 500,000 gallon, one 1.1-million-gallon tanks, and the leachate storage lagoon were observed. At the time of the inspection no leachate was being stored on site. At 11:15 a.m. EPA inspectors were led back to the conference room and discussed the plans for the remainder of the day and took a lunch break. EPA Inspectors

returned and continued the facility tour at 1:00 p.m. Mr. Hahlen led EPA inspectors to the landfill gas flare area just south of the as to energy facility. EPA inspectors observed the Primary Logic Controls (PLC) or the flares. The PLC indicated that the blowers for the flares were on standby and not operating at the time of the inspection. Neither the enclosed flare nor the open candlestick flare, were operating at the time of inspection. There were two 100-pound propane tanks that Mr. Hahlen stated were used as pilot gas for lighting the flares and getting them to temperature before introducing landfill gas. The flowmeter to the open flare was a Thermal Instruments Company Model 9500P. At the time of inspection, it showed 0.0 SCFM flow and total of 643027; however, the meter indicated this number should be multiplied by ten for actual total flow. The flowmeter to the enclosed flare was a Thermal Instruments Company Model 9500P. At the time of inspection, it showed 0.0 SCFM flow and total of 448647; however, the meter indicated this number should be multiplied by ten for actual total flow. Mr. Goodlin stated that when the flares need to operate, manual valves are opened to allow landfill gas to flow to them. Mr. Hahlen led EPA inspectors along the north side of the facility and stated that they have an equipment maintenance shop. He stated that they only do mechanical preventative maintenance work and minor repair work. He stated that there are no paint spray booths and they do not do any metal fabrication. EPA inspectors were then led to the 231-horsepower compression ignition CAT C6.6 emergency genset (Source 103A) for the scale house. Mr. Hahlen stated that the generator is checked on a weekly basis and operating hours are observed and recorded on a weekly log sheet. The hour meter at the time of inspection was 156 hours and this matched the weekly log sheet located with the emergency genset. Mr. Hahlen then led EPA inspectors along the south side of Cell 3 where two large cutouts in the slope were observed. Mr. Hahlen stated that approximately 80,000 cubic yards of waste had been removed as part of the construction activities for Cell 9. He stated that the areas of exposed trash had been sprayed with Posishell to cover the exposed waste. EPA inspectors were then led to several gas extraction wells along the south side of Cell 3 where the well head design was observed. Mr. Hahlen stated that the LVLFF does not have any individual well head flares. At 2:30 p.m., the inspection team returned to the conference room for a brief closeout meeting for the day and to inform LVLFF of the plans for the SEM the next day. Day one (09/27/23) of the inspection ended at 2:45 p.m. and EPA inspectors left the site.

EPA inspectors arrived for Day two (09/28/23) of the inspection at 8:20 a.m. and held a brief opening conference at 8:30 a.m. Mr. Hahlen, Mr. Goodlin, and Tom Spears of Waste Management and Jared Bowman of PADEP were present for the second day of the inspection. EPA inspectors informed LVLFF of the planned locations to perform comparative SEM monitoring. EPA inspector, Alex Everhart performed a calibration of the Inficon IRwin methane leak detector at 8:50 a.m. At 9:00 a.m. the SEM began with a check of the background levels of methane upwind from the LVLFF. The IRwin indicated a background of level 20 parts per million (ppm) of methane. Mr. Hahlen then led EPA inspectors to Cell 7 to start the comparative SEM monitoring. EPA inspectors began walking east down the slope of Cell 7 taking several measurements along the way. It was noted at 9:22 a.m. there was a detection of 330 ppm was

observed by an erosion rill. At 9:44 a.m. a reading of 2000 ppm (40 CFR 63.1958(d)(1) defines a reading of more than 500 ppm above background as an exceedance) was observed by gas extraction well 24. EPA inspectors noted a small leachate seep on the east side slope of Cell 7 during the SEM and informed Mr. Hahlen. Mr. Hahlen immediately dispatched a site worker to add soil and re-grade the area of the leachate seep and of the SEM exceedance. EPA inspectors continued SEM working back upslope from East to West and then down the west slope of Cell 7. At 9:45 a.m. on the west slope of Cell 7 near an erosion rill, methane was detected at 670 ppm. At 9:54 a.m. by gas extraction well WX17 methane was detected at 1000 ppm. At 10:11 a.m. on the west slope of Cell 7 methane was detected at 1000 ppm and 200 ft to the north on the on the west slope of Cell 7 at 10:15 a.m. methane was detected at 650 ppm. Mr. Hahlen immediately dispatched a site worker to add soil and regrade the areas on the west slope of Cell 7 where the SEM exceedances were measured. EPA inspectors then moved to Cell 2 and continued monitoring on a serpentine path, no detections were observed while walking the serpentine path on Cell 2. Eight penetrations and gas extraction wells in Cell 2 were checked as part of the SEM comparative monitoring. At 10:37 a.m. gas extraction Well 176 was checked for leaks and it was noted that methane was detected at 480 ppm by the band of the outer casing. At 10:39 a.m. gas extraction Well 177 was checked for leaks around the penetration and methane was detected at 1000 ppm by the base of the extraction well. Mr. Hahlen requested we re-monitor the locations where LVLf took corrective action. EPA inspectors observed the repaired and regraded slope on the east side of Cell 7 and re-monitored the location of the detection previously noted at 10:52 a.m. and it was observed to be at 117 ppm following the corrective action. Re-monitoring of the west slope exceedances occurred at 10:54 a.m. and it was observed that the west slope remained in exceedance at 1000 ppm. SEM comparative monitoring concluded, and EPA inspectors performed a post monitoring calibration “bump” check with 500 ppm methane. The IRwin read 490 ppm on the “bump” check.

The SEM comparative monitoring and walkthrough concluded at 11:18 a.m.

IV. Records Review

The records review commenced after the SEM comparative monitoring and walkthrough. EPA inspectors informed the Facility that the documents requested in the September 22, 2023; Waste Management (see Attachment 1) could be sent after the inspection since the Facility did not have time to gather them. EPA provided a link to an FTP site for the Facility to provide the records.

Below are the records requested and what was provided:

1. Provide a facility plot plan. The plot plan should identify each emission source; and
This information was provided during the inspection.
2. Facility map showing the Serpentine path for SEM monitoring; and
To be provided.
3. Site map showing all the permitted landfill cells; and

This information was provided during the inspection.

4. Copy of the most recent Title V permit issued by the PADEP, if an application has been submitted but the permit has not been renewed, provide a copy of the permit application; and
To be provided.
5. The amount of waste in place (tons) in each cell and the total waste in place (tons); and
To be provided.
6. The current design capacity (Mg) and the date(s) the design capacity was modified, if applicable; and
To be provided.
7. 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; and
To be provided.
8. 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_x, SO_x, CO, VOCs, HAPs, and PM); and
To be provided.
9. Provide a listing of all onsite boilers, emergency generators and all other internal combustion sources. For each combustion unit onsite provide:
The make and model; and
The date of installation; and
Size or rating (MMBtu/hr, HP, kW, etc.); and
Fuel combusted monthly since 2018 to present (gallons, MMcf, etc.); and
Provide any temperature or flow monitoring records for the existing flares since 2020.
and
To be provided.
10. Copies of any performance tests conducted on any source to determine emission rates, concentrations, or compliance since 2000; and
To be provided.
11. Identify any periods when the GCCS was not operable or was out of service since 2018 to present; and
To be provided.
12. Records of monthly wellhead pressure, temperature, Nitrogen or Oxygen monitoring since 2019 to the present.
To be provided.

V. Closing Conference

After the records review, EPA inspectors, Mr. Hahlen, Mr. Goodlin, and Tom Spears of Waste Management and Jared Bowman of PADEP 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 in 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 1155.

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 LVLF.

- EPA's SEM identified exceedances in several areas. these are identified above in this report. EPA inspectors reminded the Facility of the permit requirement to mark any location where exceedances are recorded and to correct the leaks and re-monitor within 10 calendar days. Furthermore, if re-monitoring still shows exceedances, then additional corrective action must be taken within 10 days of the second exceedance.

VI. List of Attachments

- Attachment 1: Email correspondence to Adam Finley and Craig Hahlen of records requested to review during inspection
- Attachment 2: Inspection Sign-in Sheets
- Attachment 3: Photo Log

Everhart, Alex

From: Everhart, Alex
Sent: Friday, September 22, 2023 3:40 PM
To: afinley@wm.com; CHahlen@wm.com
Cc: Arnold, Paul; Joseph, Carly
Subject: EPA Records Request for WM Lakeview Landfill Clean Air Act Inspection
Attachments: EPA Records request WM Lakeview LF.pdf

Adam,

Thank you for taking my call. As a follow up to the call I have attached a Record request for records we would like to review as part of our inspection. I will provide you with a link to our FTP site "GoAnywhere" in a separate email where you can upload any files prior to the inspection.

As we discussed on the phone, we plan to be onsite Wednesday morning around 8:30 and we think it will be a 2-day inspection including SEM monitoring. We will plan to have the appropriate PPE (Safety Glass, Steel toe boot, and Safety vest) with us.

Thanks!



Alex Everhart

Enforcement Inspector

Air Section – Air & RCRA Branch

Enforcement & Compliance Assurance Division

US EPA Mid-Atlantic Region

Phone: 215-814-2114

Email: Everhart.Alex@epa.gov

WM Lake View Landfill
EPA Clean Air Act Inspection
September 27-28, 2023
Records Requested Prior to Inspection

1. Facility plot plan which depicts the entire landfill surface and the existing gas collection system;
2. Facility map showing the Serpentine path for SEM monitoring;
3. Site map showing all of the permitted landfill cells;
4. Copy of the most recent Title V permit issued by the PADEP, if an application has been submitted but the permit has not been renewed, provide a copy of the permit application;
5. The amount of waste in place (tons) in each cell and the total waste in place (tons);
6. The current design capacity (Mg) and the date(s) the design capacity was modified, if applicable;
7. 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;
8. 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_x, SO_x, CO, VOCs, HAPs, and PM);
9. 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 2020.
10. Copies of any performance tests conducted on any source to determine emission rates, concentrations or compliance since 2000;
11. Identify any periods when the GCCS was not operable or was out of service since 2018 to present;
12. Records of monthly wellhead pressure, temperature, Nitrogen or Oxygen monitoring since 2019 to the present;

13. Any initial notifications, notifications of compliance status, or periodic reports submitted to EPA or PADEP pursuant to 40 CFR Part 60 Subpart WWW, 40 CFR Part 62 Subpart OOO, or 40 CFR Part 63 Subpart MACT AAAA since 2018;
14. Copy of the SEM monitoring plan and SEM monitoring records for since 2019;
15. Copies of all Title V Annual/Semiannual compliance certifications from 2019 to present; and
16. Copies of any enforcement actions issued either by EPA or PADEP for any media.

Inspection Sign-In Sheet

Facility: Waste Management Lakeview Landfill

Date: 9/27/23

Name	Affiliation	Title	Phone Number & Email
Alex Everhart	EPA	Inspector	215 814 2114 Everhart.Alex@EPA.gov
PAUL ARWOOD	EPA	Env't Engineer	215-8142194 paulid.paul@epa.gov
Carly Joseph	EPA	Env. Scientist	215-814-2227 joseph.carly@epa.gov
Seth Goodlin	WM	Gas Operation Supervisor	724-762-8783 sgoodlin@wm.com
Craig Hahlen	WM	District Manager	814-490-0847 chahlen@wm.com
Sandy DiSola	WM	Environmental Mgr	585 409 8880 SDISALVO@wm.com
Tom SPEARS	WM	GAS OPERATIONS MANAGER	724-640-2253 TSPEARS@WM.com
Melanie Lewis	PA DEP AQ	AQ Specialist	814-282-1740 mellewis@pa.gov

Inspection Sign-In Sheet

Facility: Lake View Landfill

Date: 9/28/23

Name	Affiliation	Title	Phone Number & Email
Alex Everhart	EPA	Inspector	215-814-2114 everhart.alex@epa.gov
Paul Arnold	EPA	Env't Engineer	215 814 2194 arnold.paul@epa.gov
Craig Hahlen	WM	District Manager	814-490-0847 chahlen@wm.com
Seth Goodlin	WM	Gas Ops Supervisor	724-762-8783 sgoodlin@wm.com
Tom SPEARS	WM	GAS OPERATIONS MANAGER	724-640-2253 TSPEARS@WM.com
Carly Joseph	EPA	Env. Scientist	215-814-2127 joseph.carly@epa.gov
Jared Bowman	PA DEP	Air emissions inspector	814-505-7105 jarebowman@pa.gov

Attachment 3:

PHOTO LOG

Facility: Waste Management Lake View Landfill

Location: 851 Robinson Rd East Erie, PA 16509

Inspection Date: 09/27-28/23

EPA Inspector(s): Alex Everhart, Paul Arnold, Carly Joseph

Photographer: Paul Arnold



Photo Number: 1

Photo Description: Source C101B Genset Engine #2

Analysis			
Date-Time: 09/27/23 10:08	Analysis Time: 690	Cycle Time:	
Stream: 1 LANDFILL GAS	Mode: ANLY	Cycle Start Time:	
Analyzer: LAKEVIEW	Strm Seq:1		
Company: WM LAKEVIEW LF			
Component Name	Mole Percent	BTU Gross	Relative Density
CARBON DIOXIDE	39.2722	0.00	0.5967
OXYGEN	1.4153	0.00	0.0156
NITROGEN	4.0205	0.00	0.0389
METHANE	55.2919	559.74	0.3063
TOTALS	100.0000	559.74	0.9575
** indicates user-defined components			
Compressibility Factor (1/Z) @ 14.73000 PSIA & 60.0 DEG.F= 1.0			
Base Pressures	14.73000		

Gross Dry BTU	=	561.37	Corrected/Z
Gross SAT BTU	=	551.60	Corrected/Z
Real Relative Density Gas	=	0.9599	
Unnormalized Mole Percent	=	97.040	

Photo Number: 2

Photo Description: Gas analyzer readout in control room of gas to energy facility

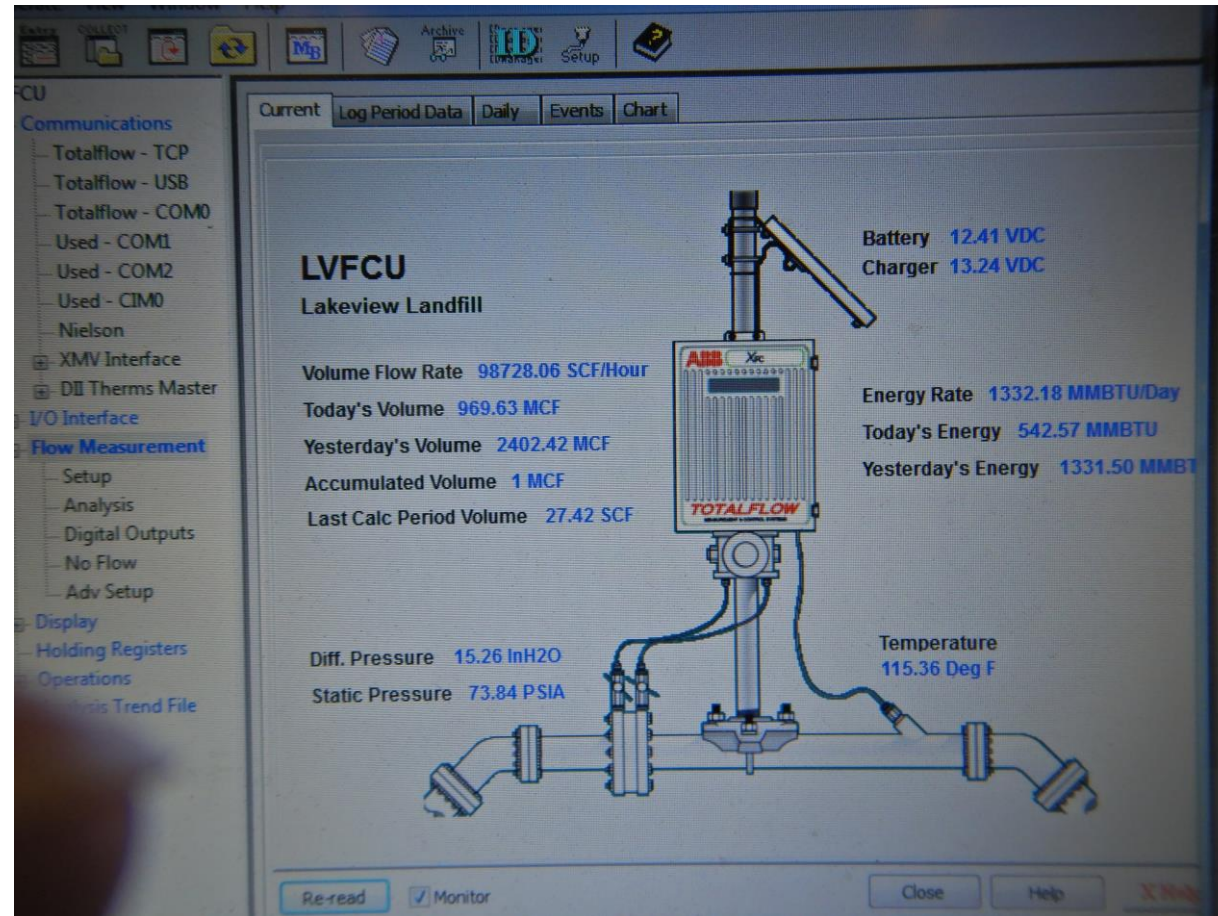


Photo Number: 3

Photo Description: ABB flowmeter status screen in control room of gas to energy facility



Photo Number: 4

Photo Description: ABB flowmeter



Photo Number: 5

Photo Description: ABB flowmeter

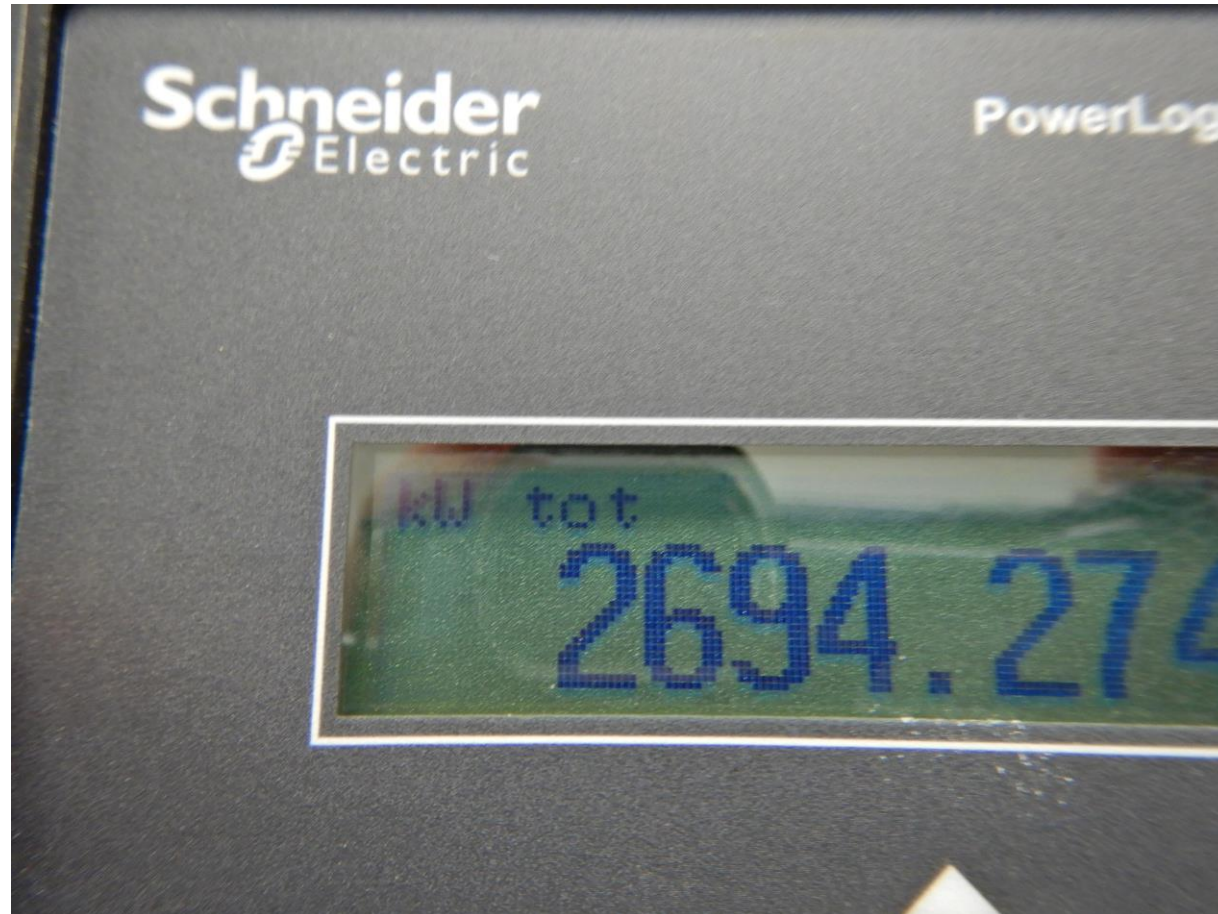


Photo Number: 6

Photo Description: Kilowatt output reading for Source C101A Genset Engine #1

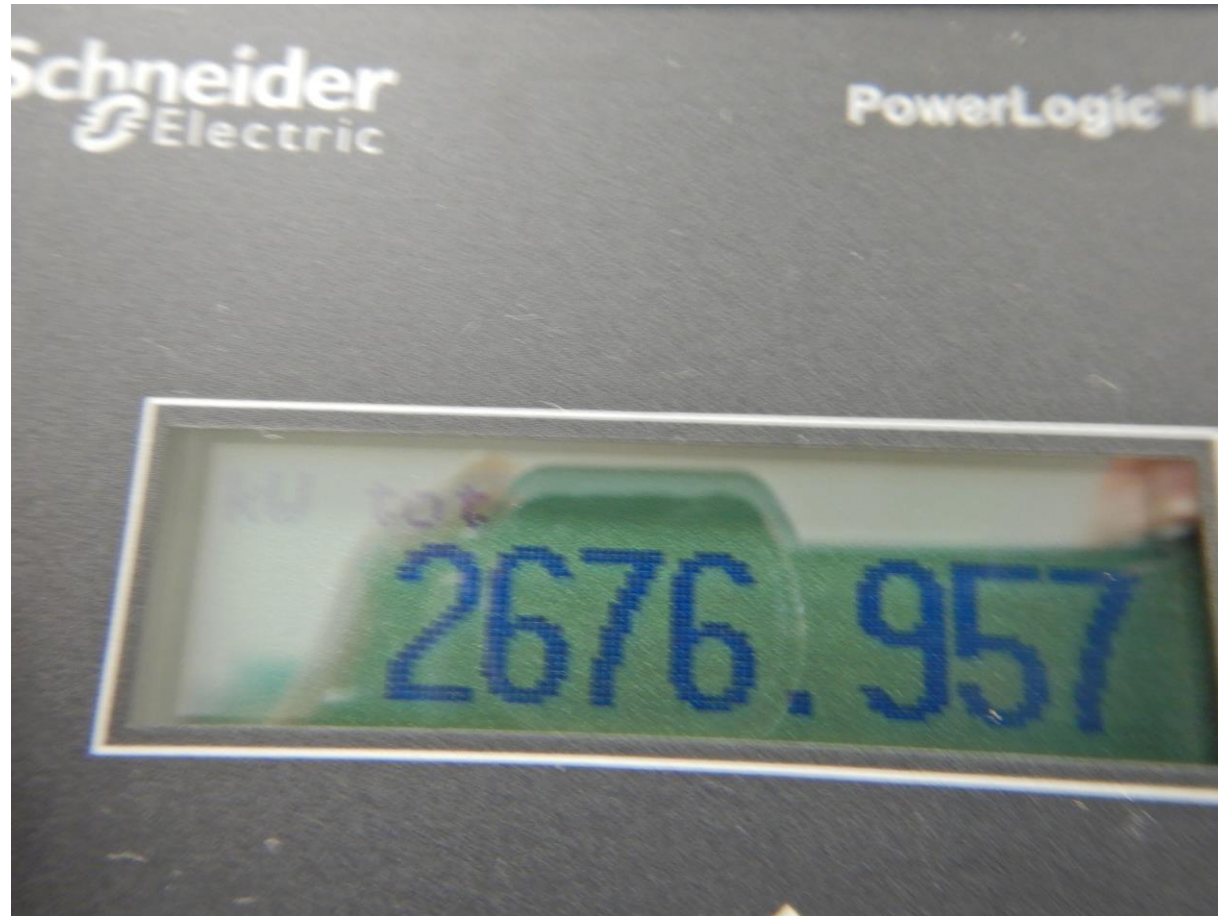


Photo Number: 7

Photo Description: Kilowatt output reading for Source C101B Genset Engine #2

ENGINE STATUS		
901 RPM Engine Speed	901 RPM Desired Eng Spd	96 % Load
68.1 PSI Oil Pressure	30.2 PSI Air Pressure	137.8 'F Air Temp
176 'F Oil Temperature	223 'F Jacket Water	100 % Fuel Correction

Photo Number: 8

Photo Description: Source C101B Genset Engine #2 status monitor

ENGINE STATUS		
902 RPM Engine Speed	901 RPM Desired Eng Spd	97 % Load
70.9 PSI Oil Pressure	30.3 PSI Air Pressure	141.1 °F Air Temp
176 °F Oil Temperature	225 °F Jacket Water	99 % Fuel Correction

Photo Number: 9

Photo Description: Source C101A Genset Engine #1 status monitor



Photo Number: 10

Photo Description: Source C101A Genset Engine #1



Photo Number: 11

Photo Description: Electric landfill gas compressors



Photo Number: 12

Photo Description: 231 horsepower compression ignition CAT 3208 emergency genset (Source 103) Engine tag



Photo Number: 13

Photo Description: Exhaust stacks (Sources S101A, S101B, S101C, S101D) from landfill gas to energy facility

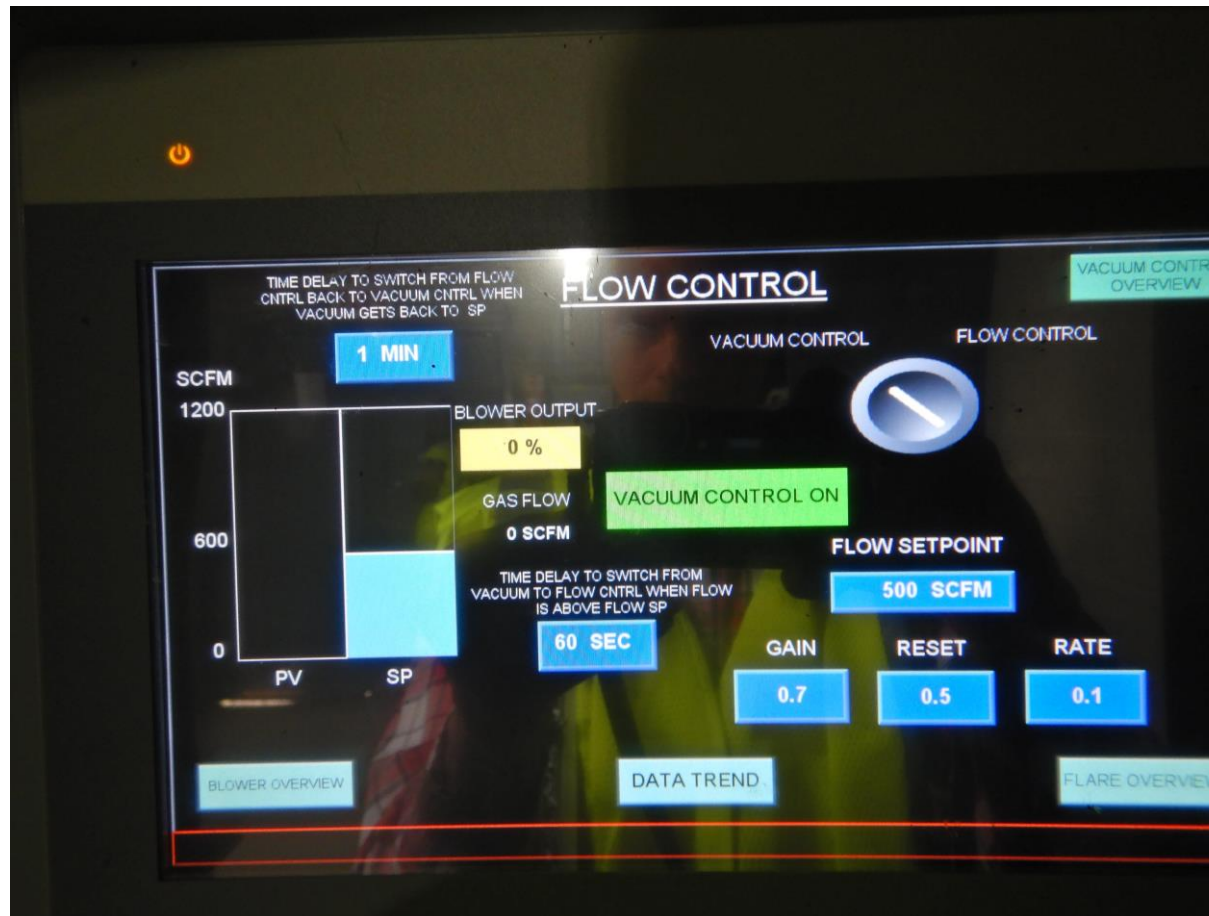


Photo Number: 14

Photo Description: Open Flare Source C101C control screen

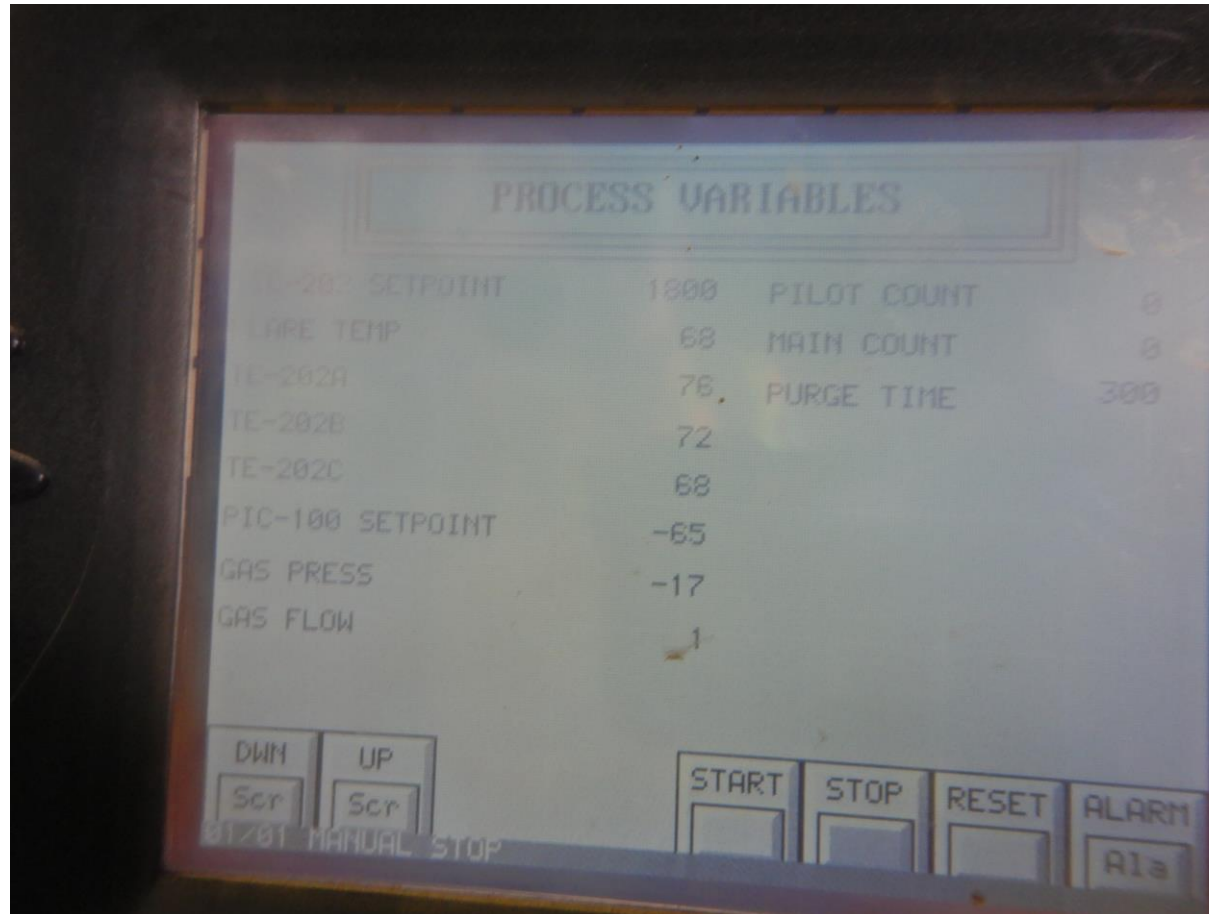


Photo Number: 15

Photo Description: Enclosed Flare Source S101 control screen



Photo Number: 16

Photo Description: Open Flare Source C101C and Enclosed Flare Source S101 control screen



Photo Number: 17

Photo Description: Open Flare Source C101C flow meter



Photo Number: 18

Photo Description: Closed Flare Source S101 flow meter



Photo Number: 19

Photo Description: Gas Extraction well looking south towards Cell 8 and future Cell 9



Photo Number: 20

Photo Description: Gas Extraction well looking southeast towards future Cell 9



Photo Number: 21

Photo Description: 230 horsepower compression ignition CAT C6.6 emergency genset (Source 103A) hour meter



Photo Number: 22

Photo Description: Leachate seep on east slope of Cell 7



Photo Number: 23

Photo Description: Gas extraction well 24 with exceedance marker by base of penetration



Photo Number: 24

Photo Description: West slope Cell 7 with exceedance marker in erosion reel



Photo Number: 25

Photo Description: West slope Cell 7 gas extraction well WX17 with exceedance marker



Photo Number: 26

Photo Description: West slope Cell 7 with exceedance marker in erosion reel



Photo Number: 27

Photo Description: West slope Cell 7 leachate seep



Photo Number: 28

Photo Description: West slope Cell 7 distressed vegetation with exceedance marker



Photo Number: 29

Photo Description: Gas extraction well 177



Photo Number: 30

Photo Description: Looking north to across future Cell 9 to excavated areas of Cell 3.