

Division of Air Quality Permit Application Submittal

Please find attached a permit application for :
[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only):
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only):

• Type of NSR Application (check all that apply):

- Construction
- Modification
- Class I Administrative Update
- Class II Administrative Update
- Relocation
- Temporary
- Permit Determination

• Type of 45CSR30 (TITLE V) Application:

- Title V Initial
- Title V Renewal
- Administrative Amendment**
- Minor Modification**
- Significant Modification**
- Off Permit Change

****If the box above is checked, include the Title V revision information as ATTACHMENT S to the combined NSR/Title V application.**

• Payment Type:

- Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
- Check (Make checks payable to: WVDEP – Division of Air Quality)

Mail checks to:
WVDEP – DAQ – Permitting
Attn: NSR Permitting Secretary
601 57th Street, SE
Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

• If the permit writer has any questions, please contact (all that apply):

- Responsible Official/Authorized Representative

- Name:
- Email:
- Phone Number:

- Company Contact

- Name:
- Email:
- Phone Number:

- Consultant

- Name:
- Email:
- Phone Number:



4500 Brooktree Rd | Suite 310 | Wexford, PA 15090 | P (724) 935-2611

trinityconsultants.com



VIA E-MAIL: DEPAirQualityPermitting@wv.gov

April 17, 2020

Received
April 20, 2020
WV DEP/ Div of Air Quality

Ms. Laura M. Crowder, Director
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

**Re: City of Charleston Sanitary Landfill - Charleston, West Virginia
Title V Operating Permit No. R30-03900461-2015
Title V Permit Renewal Application**

Dear Ms. Crowder:

Enclosed please find a complete application for the renewal of the Title V Operating Permit (TVOP) referenced above for the City of Charleston Sanitary Landfill (Landfill) in Charleston, West Virginia facility. This facility is located in Kanawha County, West Virginia. The Landfill is currently operating in accordance with West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality Title V Operating Permit R30-03900461-2015, initially issued on October 20, 2015 and revised in August 2018. The Operating Permit expires on October 20, 2020.

The Landfill wishes to inform the WVDEP that the TVOP will need to be updated for consistency with the extensive rule changes within 45 CSR 23, which became effective June 1, 2018. These rule changes were finalized when West Virginia developed an initial State Plan to address the Emission Guidelines (NSPS/EG) Subpart Cf in 2018.

Also, 40 CFR Subpart WWW actually will not apply to the Landfill after September of 2021 due to recent NSPS and NESHAP rule changes for landfills. 45 CSR 23 will be the applicable regulation for the Landfill (unless future NMOC emissions exceed the NESHAP Subpart AAAA threshold of 50 Mg/yr).

Additionally, the Landfill has reviewed the current Title V Operating Permit terms and conditions as part of this renewal application. As a result of this review, the Landfill is proposing the following minor changes to add clarity and/or to ensure consistency throughout the permit:

- The Landfill requests that the Total Hazardous Air Pollutants (Total HAPs) emission limitations given in section 5.1.4 of the current TVOP be adjusted to include the Formaldehyde (HCHO) limitation, also prescribed in that section (i.e., the 0.40 TPY of total HAP should be 1.96 TPY, when Formaldehyde is included).
- The Landfill requests that the natural gas limit described in section 5.1.5 of the current TVOP be clarified to appropriately indicate that it applies "per engine" (CE-1, CE-2).

Attached with this cover letter, please find one (1) PDF copy of the complete permit application package, including a signed copy of the required signatory page. This package contains the following:

- > Table of Contents
- > Title V Permit Application Checklist
- > General Application Forms
- > Attachment A – Area Map
- > Attachment B – Plot Plan
- > Attachment C – Process Flow Diagrams
- > Attachment D – Title V Equipment Table
- > Attachment E – Emission Unit Forms

If you need further clarification or information on these requested revisions or any aspect of the renewal application, please contact me by phone at (724) 935-2611, or via email at wrobinson@trinityconsultants.com. Thank you for working with us in reviewing this submittal.

Sincerely,



Wade A. Robinson
Senior Consultant

Enclosures

cc: Michael Runner, Waste Management, (via email)
Craig Arnold, Waste Management (via email)
Sam Strickland, City of Charleston (via email)
Justin Tallarico, Power Parts Supply, LLC (via email)
Michael Trupin, Trinity Consultants (via email)

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Responsible Official/Authorized Representative

- Name:
- Email:
- Phone Number:

Company Contact

- Name:
- Email:
- Phone Number:

Consultant

- Name:
- Email:
- Phone Number:



PROJECT REPORT
Waste Management Inc. > City of Charleston Sanitary Landfill

Title V Permit Renewal Application / Charleston, West Virginia

Prepared By:

Wade A. Robinson – Senior Consultant
Joyce Lish – Senior Consultant
Michael A. Trupin – Principal Consultant

TRINITY CONSULTANTS
4500 Brooktree Road, Suite 310
Wexford, Pennsylvania 15090
(724) 935-2611

April 2020

Project 203901.0073



Environmental solutions delivered uncommonly well

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**TITLE V PERMIT APPLICATION CHECKLIST
FOR ADMINISTRATIVE COMPLETENESS**

A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.*	
<input checked="" type="checkbox"/>	A signed copy of the application (“Certification” page must be signed and dated by a Responsible Official as defined in 45CSR30)
<input checked="" type="checkbox"/>	*Table of Contents (needs to be included but not for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input checked="" type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D – Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E – Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input type="checkbox"/>	ATTACHMENT G – Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input checked="" type="checkbox"/>	General Application Forms signed by a Responsible Official
<input type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

Received
April 20, 2020
WV DEP/ Div of Air Quality

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No., 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the, 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

11. Mailing Address		
Street or P.O. Box: PO Box 2749		
City: Charleston	State: WV	Zip: 25330 -
Telephone Number: (304) 925 - 1192		Fax Number: (304) 925 - 1194

12. Facility Location		
Street: 741 South Park Road	City: Charleston	County: Kanawha
UTM Easting: 445.92 km	UTM Northing: 4,240.92 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: From the City of Charleston take I-64 East to exit 98 (35th Street). Turn right off 35th Street onto SR61 (MacCorkle Ave, SE) and drive approximately 0.15 miles. Turn right onto South Park Road. Follow South Park Road to the landfill entrance.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If yes, for what air pollutants?
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, name the affected state(s). Ohio
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If yes, name the area(s).
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Sam Strickland		Title: Landfill Engineer
Street or P.O. Box: 114 Dickinson Street		
City: Charleston	State: WV	Zip: 25301 - <input type="text"/>
Telephone Number: (304) 348 - 8106		Fax Number: (304) 348 - 8044
E-mail address: sam.strickland@cityofcharleston.org		
Environmental Contact: Same as above		Title:
Street or P.O. Box:		
City:	State:	Zip: -
Telephone Number: () -		Fax Number: () -
E-mail address:		
Application Preparer: Wade A. Robinson		Title: Senior Consultant
Company: Trinity Consultants		
Street or P.O. Box: 4500 Brooktree Road, Suite 310		
City: Wexford	State: PA	Zip: 15090 -
Telephone Number: (724) 935 - 2611		Fax Number: () -
E-mail address: wrobinson@trinityconsultants.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Municipal Solid Waste Landfill	Waste disposal services	562212	4953

Provide a general description of operations.

The landfill accepts waste for disposal. Gas generated from the decomposition of the waste is collected and flared or cleaned to natural gas standards and supplied to pipeline.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**.

For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

- 45 CSR 6-3.1 - Open burning
- 45 CSR 6-3.2 - Open burning exemptions;
- 40 CFR 61.145(b) and 45 CSR 34 - Asbestos
- 45 CSR 4-3.1 State enforceable only - Odor;
- 45 CSR 11-5.2 - Standby plan for reducing emissions;
- WV Code 22-5-4(a)(14) - Emissions inventory;
- 40 CFR 82 Subpart F - Ozone depleting substances;
- 45 CSR 17-3.1 Fugitive particulate matter
- 45 CSR 17-3.2 & 4.1 - Fugitive particulate matter control;

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

- WV Code 22-5-4(a)(14-15) and 45CSR13, Stack testing
- 45CSR30-5.1.c.2.A.; 45CSR13, R13-2667, 4.4.1, Monitoring information
- 45CSR30-5.1.c.2.B, Retention of records
- 45CSR30-5.1.c State-Enforceable only, Odors
- 45CSR30-4.4 and 5.1.c.3.D, Responsible official
- 45CSR30-5.1.c.3.E, Reporting requirements
- 45CSR30-8, Certified emissions statement
- 45CSR30-5.3.e, Compliance certification
- 45CSR30-5.1.c.3.A, Semi-annual monitoring reports
- 45CSR30-5.1.c.3.C, Deviations
- 45CSR 30-5.1.c.3.B, Reporting of deviations
- 45CSR30-4.3.h.1.B., New applicable requirements

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	148.74
Nitrogen Oxides (NO _x)	56.34
Lead (Pb)	
Particulate Matter (PM _{2.5}) ¹	111.53
Particulate Matter (PM ₁₀) ¹	111.53
Total Particulate Matter (TSP)	<250
Sulfur Dioxide (SO ₂)	9
Volatile Organic Compounds (VOC)	47.27
Hazardous Air Pollutants ²	Potential Emissions
Total HAPS (each HAP < 10 tpy)	<25
HCl	2.06
Formaldehyde	3.12
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Methane	19,504
Carbon Dioxide (CO ₂)	53,416
Hydrogen Sulfide	2.98
GHG (CO ₂ e)	5,182.18
¹ PM _{2.5} and PM ₁₀ are components of TSP.	
² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input checked="" type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input checked="" type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input checked="" type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: Chippers; Rock crushers; Portable compressors

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input checked="" type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input checked="" type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input checked="" type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input checked="" type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

Note: This Certification must be signed by a responsible official. The original, signed in blue ink, must be submitted with the application. Applications without an original signed certification will be considered as incomplete.

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: **Sam Strickland**

Title: **Landfill Engineer**

Responsible official's signature:

Signature: 

Signature Date: 4/17/2020

(Must be signed and dated in blue ink)

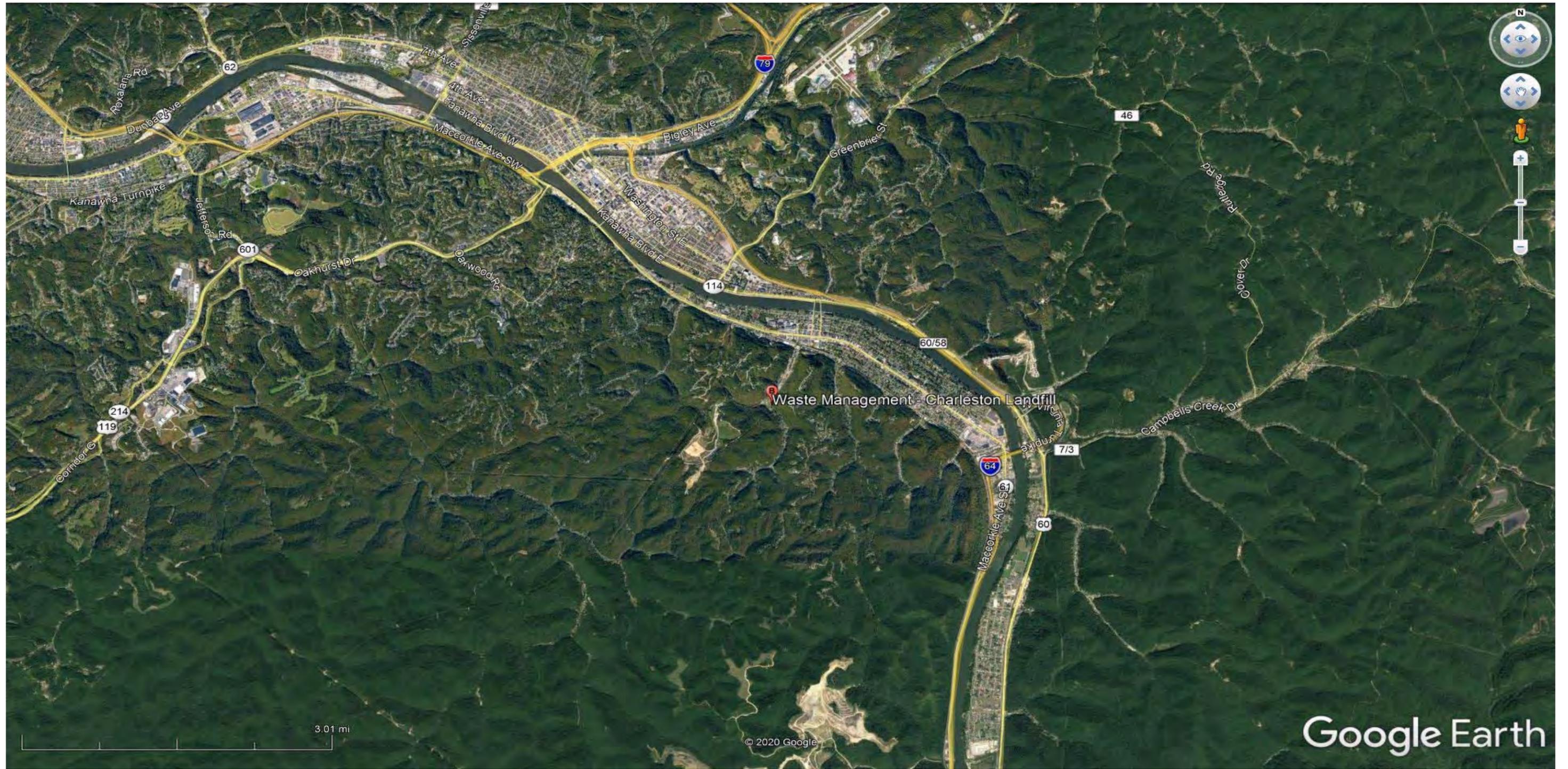
Note: Please check all applicable attachments included with this permit application:

- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | ATTACHMENT A: Area Map |
| <input checked="" type="checkbox"/> | ATTACHMENT B: Plot Plan(s) |
| <input checked="" type="checkbox"/> | ATTACHMENT C: Process Flow Diagram(s) |
| <input checked="" type="checkbox"/> | ATTACHMENT D: Equipment Table |
| <input checked="" type="checkbox"/> | ATTACHMENT E: Emission Unit Form(s) |
| <input type="checkbox"/> | ATTACHMENT F: Schedule of Compliance Form(s) |
| <input type="checkbox"/> | ATTACHMENT G: Air Pollution Control Device Form(s) |
| <input type="checkbox"/> | ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) |

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

Area Map



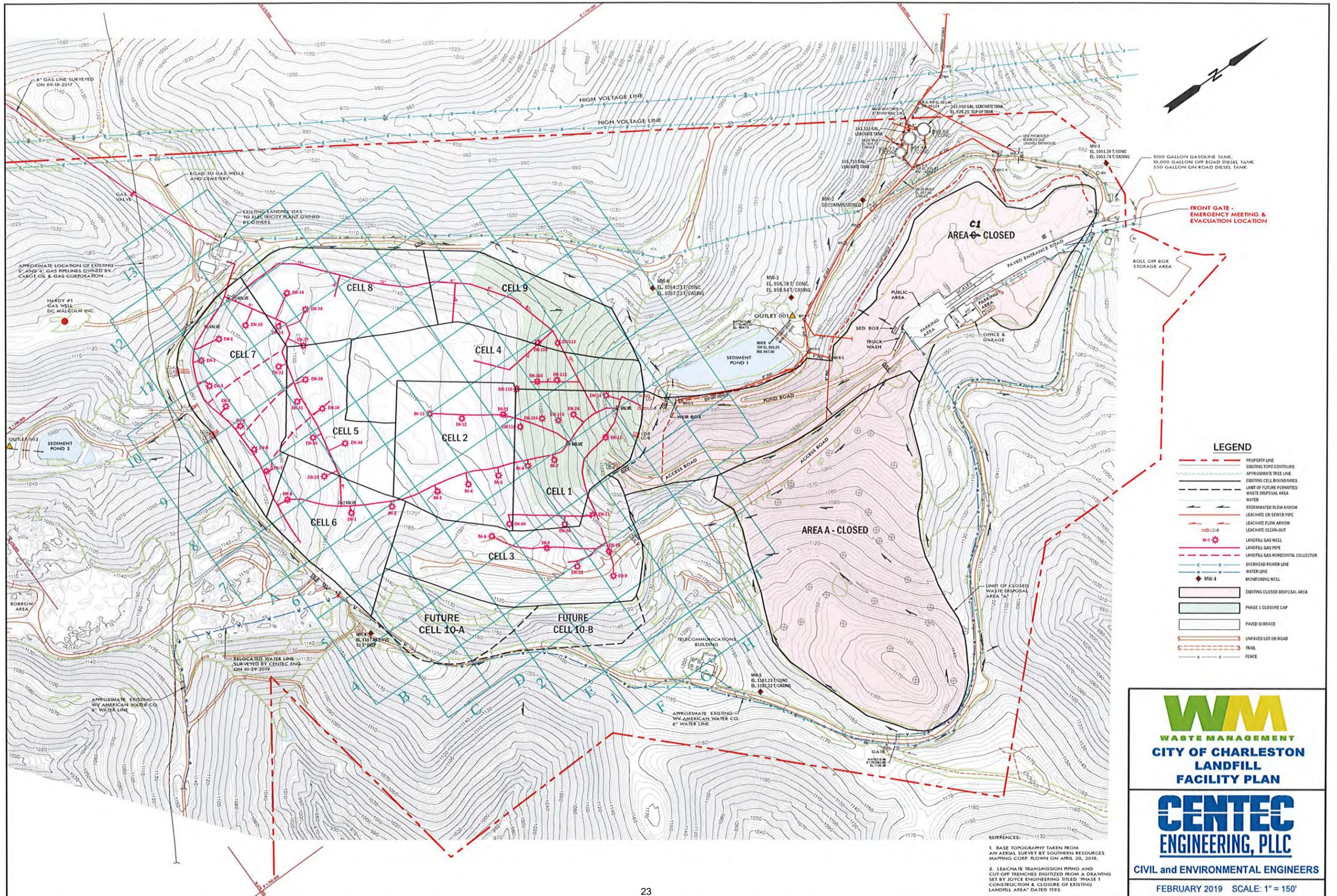
Title:

Area Map

	<p>PREPARED BY TRINITY CONSULTANTS</p>	<p>Waste Management City of Charleston Sanitary Landfill Charleston, West Virginia</p>	<p>PROJECT 203901.0073</p>	<p>DATE April 2020</p>	<p>SHEET 1 of 1</p>	<p>REV 001</p>
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ATTACHMENT B

Plot Plan



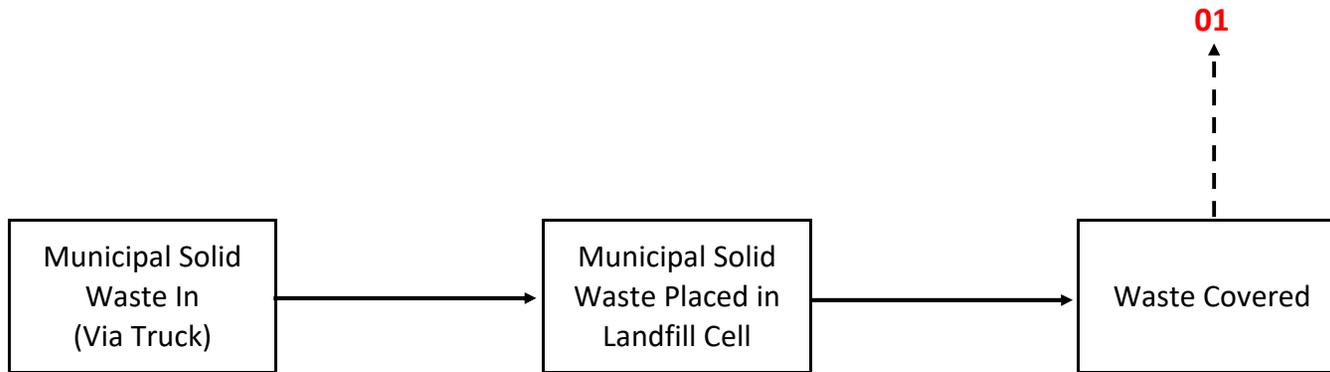
LEGEND

- PROPERTY LINE
- EXISTING TOPO CONTOURS
- APPROXIMATE TREE LINE
- EXISTING CELL BOUNDARIES
- LIMIT OF FUTURE PERMITTED WASTE DISPOSAL AREA
- WATER
- STORMWATER FLOW ARROW
- LEACHATE OR SEWER PIPE
- LEACHATE FLOW ARROW
- LEACHATE CLEAN-OUT
- LD-8
- MW-3
- LANDFILL GAS WELL
- LANDFILL GAS PIPE
- LANDFILL GAS HORIZONTAL COLLECTOR
- OVERHEAD POWER LINE
- WATER LINE
- MONITORING WELL
- MW-4
- EXISTING CLOSED DISPOSAL AREA
- PHASE 1 CLOSURE CAP
- PAVED SURFACE
- UNPAVED LOT OR ROAD
- TRAIL
- FENCE

REFERENCES:
 1. BASE TOPOGRAPHY TAKEN FROM AN AERIAL SURVEY BY SOUTHERN RESOURCES MAPPING CORP. FLOWN ON APRIL 20, 2018.
 2. LEACHATE TRANSMISSION PIPING AND CUT-OFF TRENCHES DIGITIZED FROM A DRAWING SET BY JOYCE ENGINEERING TITLED "PHASE 1 CONSTRUCTION & CLOSURE OF EXISTING LANDFILL AREA" DATED 1993.

WASTE MANAGEMENT
CITY OF CHARLESTON
LANDFILL FACILITY PLAN
CIVIL and ENVIRONMENTAL ENGINEERS
 FEBRUARY 2019 SCALE: 1" = 150'

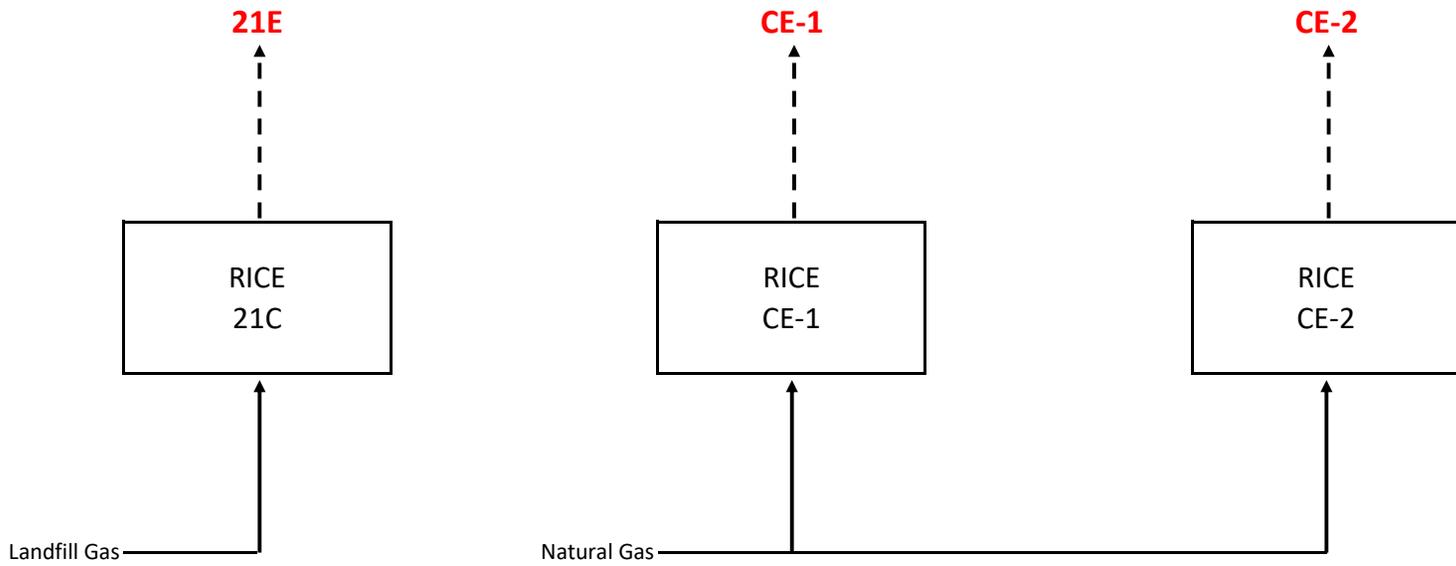
ATTACHMENT C
Process Flow Diagrams



LEGEND

- Process Flow
- - - - -→ Fugitive Emissions
- 01** Emission Point

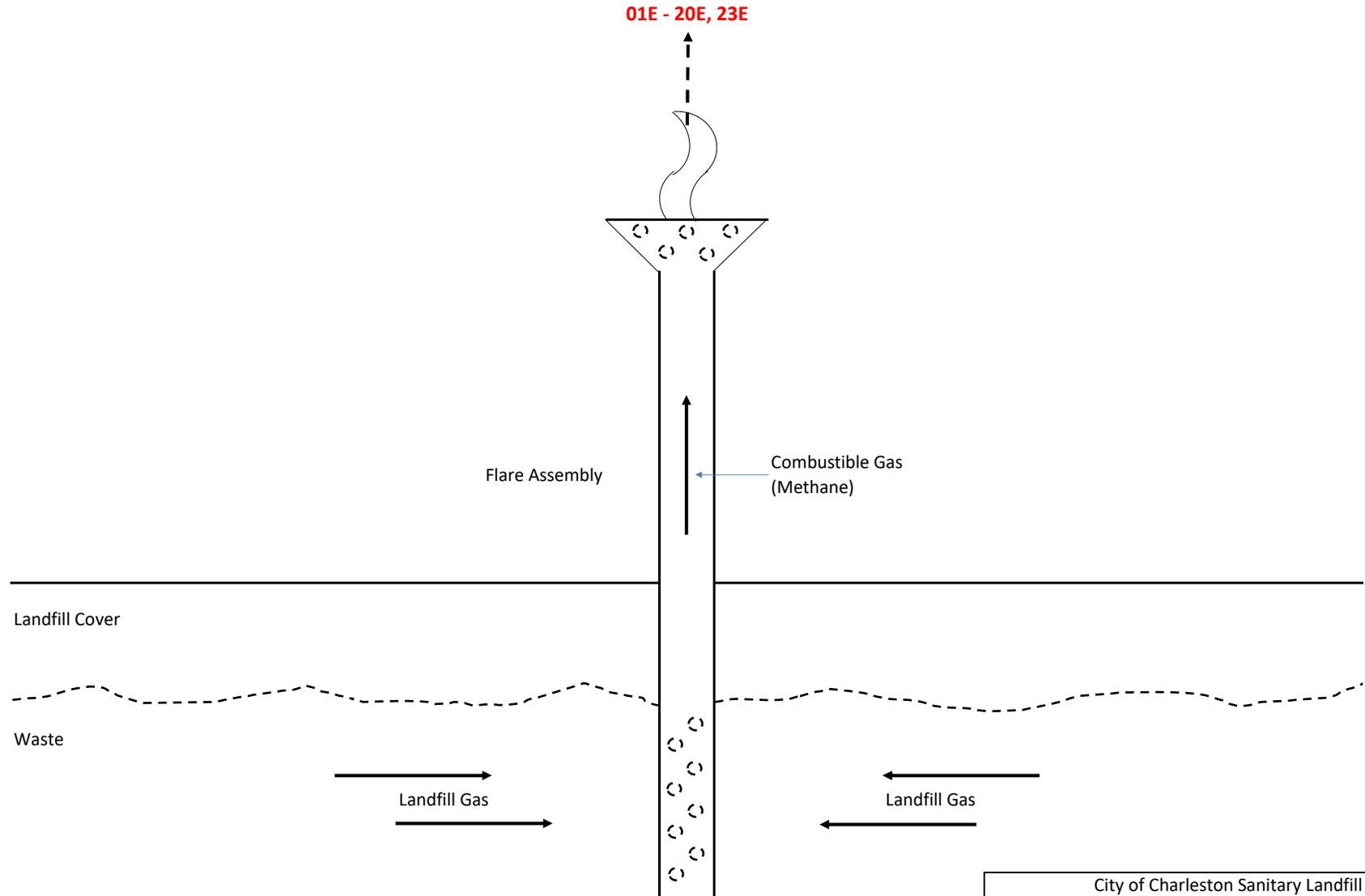
City of Charleston Sanitary Landfill Charleston, West Virginia			
TITLE		Facility Process Flow Diagram	
PREPARED BY		TRINITY CONSULTANTS	
DATE		April 2020	
PROJECT	DRAWING	SHEET	REV
203901.0073	FACILITY PFD	1 of 1	001



LEGEND

- Process Flow
- - - - -→ Air Emission Flow
- 21E** Emission Point

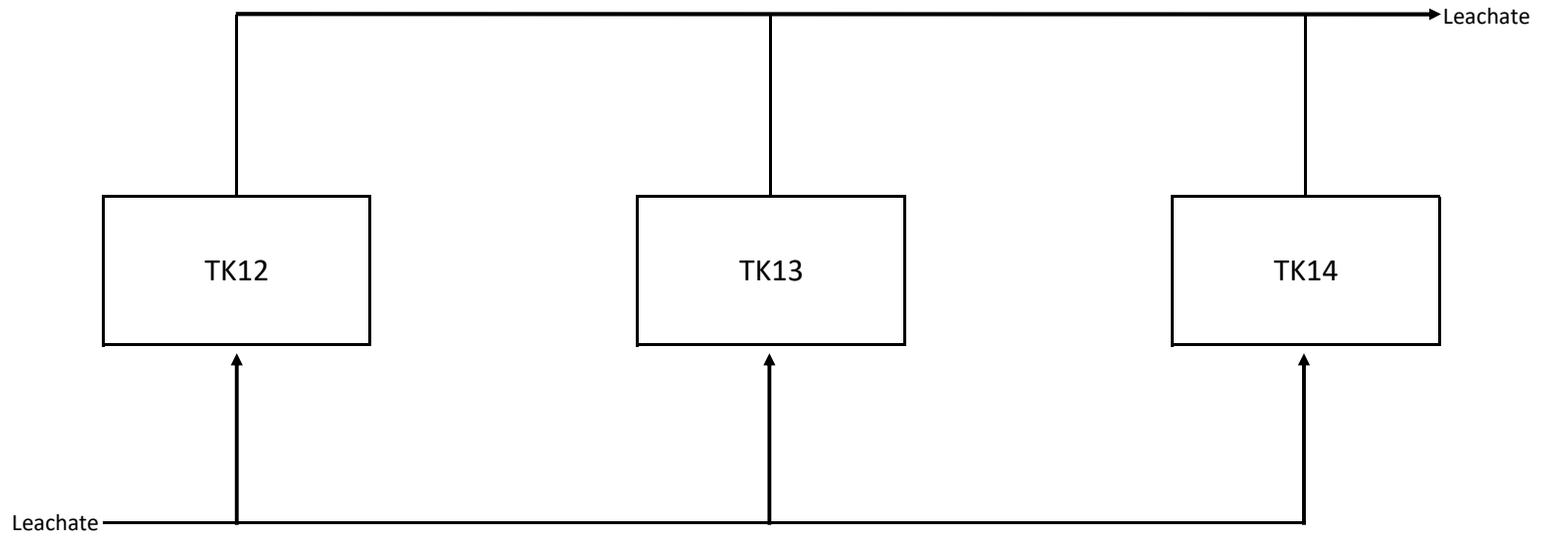
City of Charleston Sanitary Landfill Charleston, West Virginia			
TITLE		Engine Emissions Process Flow Diagram	
PREPARED BY		TRINITY CONSULTANTS	
DATE		April 2020	
PROJECT	DRAWING	SHEET	REV
203901.0073	ENGINES PFD	1 of 1	001



LEGEND

- Process Flow
- - - - -→ Air Emission Flow
- 01E** Emission Point

City of Charleston Sanitary Landfill Charleston, West Virginia			
TITLE		Flares Process Flow Diagram	
PREPARED BY		TRINITY CONSULTANTS	
DATE		April 2020	
PROJECT	DRAWING	SHEET	REV
203901.0073	FLARES PFD	1 of 1	001



LEGEND

→ Process Flow

City of Charleston Sanitary Landfill Charleston, West Virginia			
TITLE		Leachate Tanks Process Flow Diagram	
PREPARED BY		TRINITY CONSULTANTS	
DATE		April 2020	
PROJECT	DRAWING	SHEET	REV
203901.0073	TANKS PFD	1 of 1	001

ATTACHMENT D
Title V Equipment Table

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as
insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/ Modified
			Landfill Areas		
01-C1	None	01	Area C1 - Closed and Capped	166,448 Mg	1971
01-A	None	01	Area A - Closed and Capped	305,519 Mg	1979
01-C	See Note 1	01	Area C - Active	5,114,656 Mg	1995
			Refuse Incinerators (Flare)		
01-20E	N/A	01-20C	Refuse Gas Incinerators	50 SCFM	TBD
			Engines		
21E	N/A	21C	GE Genset JBS 320GS-L.L., emergency (non-certified)	1468 bhp/ 1800 rpm	2010
CE-1	N/A	CE-1	Ajax DPC-540 2SLB (Manufactured 1991)	540 bhp/ 400 rpm	2018
CE-2	N/A	CE-2	Ajax DPC-540 2SLB (Manufactured 1991)	540 bhp/ 400 rpm	2018
			GCCS Plant Flare		
23E	N/A	23C	GCCS Plant Flare	2000 CFM	2009
			Miscellaneous		
LCS	N/A	LCS	Leachate Collection System	N/A	1994
TK 12	None	TK 12	Leachate Tank (max. true vapor pressure <3.5 kPa)	150,000 Gal.	1994
TK 13	None	TK 13	Leachate Tank (max. true vapor pressure <3.5 kPa)	249,000 Gal.	1997
TK 14	None	TK 14	Leachate Tank (max. true vapor pressure <3.5 kPa)	342,000 Gal.	2010
	Note 1		Vent Flares 01C to 20C, Engine 21C, and Flare 23C		

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E
Emission Unit Forms

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 01	Emission unit name: Landfill Areas (01-C1, 01-A, 01-C)	List any control devices associated with this emission unit: Vent Flares 01C to 20C; Engines 21C, Flare 23C
---------------------------------------	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Areas C1 and A are closed and capped areas of the landfill. Area C is the active area of the landfill

Manufacturer: N/A	Model number: N/A	Serial number: N/A
Construction date: (MM/DD/YYYY) / / 1995	Installation date: (MM/DD/YYYY) / /	Modification date(s): (MM/DD/YYYY) / / ; / / / / ; / /

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

5,586,623 Mg

Maximum Hourly Throughput: N/A	Maximum Annual Throughput: N/A	Maximum Operating Schedule: 8,760 hr/yr
--	--	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	Type and Btu/hr rating of burners: N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.12	9.54
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	11.83	51.84
Total Particulate Matter (TSP)	48.60	212.85
Sulfur Dioxide (SO ₂)	0.87	3.79
Volatile Organic Compounds (VOC)	8.82	38.62
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs (none < 10 TPY)	5.56	24.35
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon dioxide	12,218.26	53,516
Hydrogen sulfide	0.68	2.98
Methane	4,452.97	19,504
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>US EPA LandGEM version 3.02 model and AP-42 2.4 Municipal Solid Waste Landfills dated (11/98) for landfill gas and SO₂ emissions from the landfill areas</p> <p>AP-42 for particulate emissions [13.2.1 Paved Roads dated (1/11), 13.2.2 Unpaved Roads dated (11/06), 13.2.4 Aggregate Handling and Storage piles dated (11/06), 11.9 for off-road equipment blasting and operations dated (10/98)]</p> <p>AP-42 3.2 Natural Gas-fired Reciprocating Engines dated (7/00) and manufacturer's emission factors for the engines.</p> <p>NOTE: These emissions have been pulled forward from prior renewal applications. The facility may wish to update these values prior to final issuance of a new Title V Operating Permit, in coordination with DEP review.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45CSR23, 40 C.F.R. 60.757 and 40 CFR 60.754(a)(3) Requirements When reported NMOC

Emissions Rate is equal to or greater than 50 Mg/yr

45CSR23, 40 C.F.R. 60.757 and 40 CFR 60.754(a)(4) Requirements When Reported NMOC

Emission Rate is equal to or greater than 50 Mg/yr (when using site specific C-NMOC)

45CSR23, 40 C.F.R. 60.752 and 40 CFR 60.753 Landfill gas collection system

45CSR23 and 40 C.F.R. 60.757(c) LFG Collection and Control System Design Plan

Note: 45CSR23 has been revised and is no longer consistent with the current operating permit. The facility will work with WVDEP to determine applicable changes (including a revised NMOC "threshold" of 34 Mg/yr).

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45CSR23 and 40 C.F.R. 60.758 Keep records of all emission data and operating parameters such as maximum design capacity, amount of refuse in place, and yearly refuse accumulation rate; nondegradable refuse, vents, wells and flares. Keep for 5 years.

45CSR23 and 40 C.F.R. 60.757(b)(1)(ii) 5-year NMOC report

45CSR23 and 40 C.F.R. 60.757(b)(1)(ii) Revision of 5-year NMOC report

45CSR23 and 40 C.F.R. 60.757(b) Annual NMOC Emission Report

45CSR23 and 40 C.F.R. 60.758 and 40 CFR 60.757(d) Closure Report

Note: 45CSR23 has been revised and is no longer consistent with the current operating permit. The facility will work with WVDEP to determine applicable changes (including a revised NMOC "threshold" of 34 Mg/yr).

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 01-20C	Emission unit name: Refuse Incinerators (01-20C)	List any control devices associated with this emission unit: None
---	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Refuse Gas Incinerators

Manufacturer: Not Available	Model number: Not Available	Serial number: Not Available
Construction date: (MM/DD/YYYY) / / 2005	Installation date: (MM/DD/YYYY) / / 2006	Modification date(s): (MM/DD/YYYY) / / 2007 ; / / / / ; / /

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

50 SCFM each

Maximum Hourly Throughput: 3,000 scf/hf each	Maximum Annual Throughput: 1,752 mmscf/yr	Maximum Operating Schedule: 8,760 hr/yr
--	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners: N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Landfill gas (50% methane)

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Landfill gas (50% methane)	N/A	N/A	506 btu/cf

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	22.20	97.24
Nitrogen Oxides (NO _x)	4.20	18.40
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	0.59 each	2.58 each
Total Particulate Matter (TSP)	0.59 each	2.58 each
Sulfur Dioxide (SO ₂)	0.98	4.29
Volatile Organic Compounds (VOC)	0.03	0.14
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
HCl	0.47	2.06
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>AP-42 Municipal Solid Waste Landfills Draft (10/08)</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

- 45CSR6-4.1 and 45 C.S.R. 13, R13-2667, 4.1.2 PM emission limits
- 45CSR6-4.3 and 45 C.S.R. 13, R13-2667, 4.1.6 Visible emissions shall not exceed 20% opacity
- 45CSR6-4.4 and 45 C.S.R. 13, R13-2667, 4.1.7 Visible emissions during startup
- 45CSR6-4.5, No unburned or partially burned refuse or ash large enough to be individually distinguished in the open air is permitted.
- 45CSR6-4.6 and 45 C.S.R. 13, R13-2667, 4.1.10 Operate and maintain to prevent odors
- 45CSR6-6.1 Obtain a permit to construct, modify or relocate flares
- 45CSR13, R13-2667, 4.1.1 Facility shall not employ more than 20 flares
- 45CSR13, R13-2667, 4.1.4 Hourly and annual emission rates
- 45CSR13, R13-2667, 4.1.5 Maximum landfill gas through flares.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

- 45CSR13, R13-2667, 4.3.1., Visible emissions checks
- 45CSR13, R13-2667, 4.2.2 and 45CSR30-5.1.c., Monitor throughput of landfill gas
- 45CSR30-5.1c Calculate emissions monthly
- 45CSR6-7.1 Conduct stack tests for particulate matter emissions
- 45CSR30-5.1c Maintain records of all monitoring data
- 45CSR13, R13-2667, 4.4.4 Keep records of visible emission opacity tests
- 45CSR30-5.1c and 45CSR13, R13-2667, 4.4.5 Keep records of landfill gas throughput
- 45CSR30-5.1c and 45CSR13, R13-2667, 4.4.6 Keep all required records for 5 years
- 45CSR13, R13-2667, 4.5.1 Report visible emission violations
- 45CSR13, R13-2667, 4.5.2 Report deviations from flare design and operation criteria

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 21C	Emission unit name: Engine (21C)	List any control devices associated with this emission unit: None
--	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Reciprocating Internal Combustion Engine

Manufacturer: GE	Model number: Genset JGS 320 GS-L-L	Serial number: Not Available
Construction date: (MM/DD/YYYY) 01 / 02 / 2010	Installation date: (MM/DD/YYYY) / /	Modification date(s): (MM/DD/YYYY) / / 2007 ; / / / / ; / /

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

1,468 hp

Maximum Hourly Throughput: 26,867 cf/hf	Maximum Annual Throughput: 235.4 mmscf/yr	Maximum Operating Schedule: 8,760 hr/yr
---	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 1,468 horsepower	Type and Btu/hr rating of burners: N/A
--	--

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Landfill gas (50% methane)

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Landfill gas (50% methane)	N/A	N/A	506 btu/cf

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	7.20	31.54
Nitrogen Oxides (NO _x)	3.90	17.08
Lead (Pb)		
Particulate Matter (PM _{2.5})	1.44	6.31
Particulate Matter (PM ₁₀)	1.44	6.31
Total Particulate Matter (TSP)	1.44	6.31
Sulfur Dioxide (SO ₂)	0.21	0.90
Volatile Organic Compounds (VOC)	0.04	0.17
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Table 3.2-3 (7/00)

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

- 45CSR13, R13-2667, 5.1.1, Operation and maintenance procedures
- 45CSR13, R13-2667, 5.1.2, Hourly and annual emission limits and throughput
- 45CSR13, R13-2667, 5.1.3, Landfill gas limits to engines
- 45CSR13, R13-2667, 5.1.6, 45CSR16, 40 C.F.R. 60.4233(e) Comply with emission standards
- 45CSR16, 40 C.F.R. 60.4234, Achieve emission standards over entire life of engine
- 45CSR16, 40 C.F.R. 60.4237(a), Non-resettable hour meter
- 45CSR16, 40 C.F.R. 60.4243(b), Demonstrate compliance
- 45CSR16, 40 C.F.R. 60.4243(d), Operate according to requirements

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45CSR16, 40 C.F.R. 40.4244(a),(b),(c),(d),(e),(f),(g), 45CSR13, R13-2667, 6.5.1, Testing requirements for owners and operators

45CSR13, R13-2667, 5.2.1, Keep records for 5 years

45CSR16, 40 C.F.R. 40.4245(a),(b),(d), 45CSR13, R13-2667, 6.6.1, Notification, Reports, and Records for owners and operators

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: CE-1, CE-2	Emission unit name: Engines (CE-1, CE-2)	List any control devices associated with this emission unit: None
---	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Reciprocating Internal Combustion Engines

Manufacturer: Cameron	Model number: Ajax DPC-540 2SLB	Serial number: Not Available
Construction date: (MM/DD/YYYY) / / 1991	Installation date: (MM/DD/YYYY) / / 2018	Modification date(s): (MM/DD/YYYY) / / ; / / / / ; / /

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

540 hp each

Maximum Hourly Throughput: 4,212 cf/hr each	Maximum Annual Throughput: 36.9 mmscf/yr each	Maximum Operating Schedule: 8,760 hr/yr
---	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 540 horsepower	Type and Btu/hr rating of burners: N/A
--	--

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	0.01%	Neg.	1,000 Btu/ft3

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.19 (each)	5.21 (each)
Nitrogen Oxides (NO _x)	2.38 (each)	10.43 (each)
Lead (Pb)		
Particulate Matter (PM _{2.5})	0.204 (each)	0.89 (each)
Particulate Matter (PM ₁₀)	0.204 (each)	0.89 (each)
Total Particulate Matter (TSP)	0.204 (each)	0.89 (each)
Sulfur Dioxide (SO ₂)	0.002 (each)	0.01 (each)
Volatile Organic Compounds (VOC)	0.95 (each)	4.17 (each)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	0.36 (each)	1.56 (each)
Total HAPs	0.45 (each)	1.96 (each)
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
GHG (CO ₂ e)	561.75 (each)	2,591.09 (each)
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>CO, NO_x, VOC, and Formaldehyde emission factors from manufacturer's data</p> <p>PM, SO₂, HAP, and GHG emission factors from AP-42 Table 3.2-1 (7/00)</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

- 45CSR13, R13-2667, 5.1.1 Operation and maintenance procedures
- 45CSR13, R13-2667, 5.1.4 Hourly and annual emission limits and throughput
- 45CSR13, R13-2667, 5.1.5 Natural gas limits to engines
- 45CSR13, R13-2667, 45CSR34; 5.1.7; 40 C.F.R. 63.6603(a), Comply with operating limitations
- 45CSR13, R13-2667, 5.1.8; 45CSR34, Table 2d to Subpart ZZZZ of Part 63, Comply with requirements for HAPs
- 45CSR34, 40 C.F.R. 63.6605, Comply with general requirements
- 45CSR34, 40 CFR §63.6625(e),(h),(j), Operation and maintenance requirements
- 45CSR34, 40 CFR §63.6640(a); Table 6 to Subpart ZZZZ of Part 63, Demonstrate continuous compliance

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

- 45CSR13, R13-2667, 5.2.1 Keep records for 5 years
- 45CSR34, 40 C.F.R. 63.6655(a),(d),(e), Recordkeeping requirements
- 45CSR34, 40 C.F.R. 63.6640(b),(e), Reporting requirements

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 23C	Emission unit name: GCCS Plant Flare (23C)	List any control devices associated with this emission unit: None
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Refuse Gas Incinerator

Manufacturer: Not available	Model number: Not available	Serial number: Not Available
---------------------------------------	---------------------------------------	--

Construction date: (MM/DD/YYYY) / / 2009	Installation date: (MM/DD/YYYY) / /	Modification date(s): (MM/DD/YYYY) / / 2007 ; / / / / ; / /
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

2,000 SCFM

Maximum Hourly Throughput: 120,000 scf/hr	Maximum Annual Throughput: 1,752 mmscf/yr	Maximum Operating Schedule: 8,760 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners: N/A
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Landfill gas (50% methane)

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Landfill gas (50% methane)	N/A	N/A	506 btu/cf

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	22.20	97.24
Nitrogen Oxides (NO _x)	4.20	18.40
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	1.35	5.91
Total Particulate Matter (TSP)	1.35	5.91
Sulfur Dioxide (SO ₂)	0.98	4.29
Volatile Organic Compounds (VOC)	0.03	0.14
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
HCl	0.47	2.06
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

- 45CSR6-4.3 and 45CSR13, R13-2667, 4.1.6 Visible emissions shall not exceed 20% opacity
- 45CSR6-4.4 and 45CSR13, R13-2667, 4.1.7 Visible emissions during start up
- 45CSR6-4.5 no unburned or partially burned refuse of ash large enough to be individually distinguished in the open air is permitted.
- 45CSR6-4.6 and 45CSR13, R13-2667, 4.1.10 Operate and maintain to prevent odors.
- 45CSR6-6.1 Obtain a permit to construct, modify or relocate flares
- 45CSR13, R13-2667, 4.1.1 Facility shall not employ more than 1 gas collection system flare
- 45CSR13, R13-2667, 4.1.3; 45CSR6-4.1, Hourly particulate emission rate
- 45 CSR 13, R13-2667, 4.1.4 Hourly and annual emission rates
- 45 CSR 13, R13-2667, 4.1.5 Maximum landfill gas throughput to flare
- 45 CSR 13, R13-2667, 4.1.8 Operate with flame present except during SSM
- 45 CSR 13, R13-2667, 4.1.9 Conduct flare compliance assessment if requested

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

- 45CSR13, R13-2667, 4.3.1., Visible emission checks
- 45CSR13, R13-2667, 4.2.1 Monitor presence or absence of flare pilot flame
- 45CSR13, R13-2667, 4.2.2 and 45CSR§30-5.1.c., Monitor landfill gas fed to flare monthly
- 45CSR 30-5.1.c, Calculate monthly emissions and 12 month rolling total
- 45CSR 6-7.1, Conduct stack tests for particulate matter emissions
- 45CSR13, R-13-2667, 4.3.2, Conduct a flare compliance assessment if required.
- 45CSR23 and 40 C.F.R. §60.758], Keep all required records
- 45CSR13, R13-2667, 4.4.2, Keep all required records of APCE maintenance
- 45CSR13, R13-2667, 4.4.3, Keep records of times when pilot flame was absent
- 45CSR13, R13-2667, 4.4.4 Keep records of visible emission opacity tests
- 45CSR13, R13-2667, 4.4.5 and 45CSR30-5.1.c., Keep records of landfill gas throughput
- 45CSR13, R13-2667, 4.4.6, Maintain records for 5 years
- 45CSR13, R13-2667, 4.5.2, Report deviations from flare design and operation criteria

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: TK12, TK13, TK14	Emission unit name: Leachate Tanks (TK12, TK13, & TK14)	List any control devices associated with this emission unit: None
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Leachate Tanks

Manufacturer: Not available	Model number: Not available	Serial number: Not Available
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Construction date: (MM/DD/YYYY) / /	Installation date: (MM/DD/YYYY) / / 1994	Modification date(s): (MM/DD/YYYY) / / 1997 ; / / 2010 / / ; / /
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

150,000 gal.; 249,000 gal.; 342,000 gal.

Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule: 8,760 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners: N/A
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45CSR16, 40 C.F.R. 60.116b(a), Keep records at least 2 years and for the life of the source

45CSR16, 40 C.F.R. 60.116b(b), Keep required records readily accessible showing tank dimensions and storage capacity.

45CSR16, 40 C.F.R. 60.116b(f), Calculate maximum true vapor pressure prior to initial filling

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.