



Moats, Nikki B <nikki.b.moats@wv.gov>

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**RE: [External] - Further questions for Tucker and Mercer County Landfill permits**

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Tommy Sweat <tsweat@montrose-env.com>

Fri, Aug 30, 2024 at 2:21 PM

To: "Moats, Nikki B" <nikki.b.moats@wv.gov>, Tommy Sweat <tsweat@montrose-env.com>

Nikki,

Here are the dates for Mercer. Do you need anything else from Mercer?

- E001 – Landfill (Solid Waste): 1979
- T-1 Diesel Fuel Tank 2000 gal: 1979
- T-2 Diesel Fuel Tank 700 gal: 2019
- T-3 Diesel Fuel Tank 350 gal: 2008
- T-4 Gasoline Tank 500 gal: 2000
- T-5 Leachate Tank 554,020 gal: 1992

Thanks,  
Tommy

Tommy Sweat, P.E.  
Montrose Environmental

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**From:** Tommy Sweat <tsweat@montrose-env.com>

**Sent:** Thursday, August 29, 2024 10:40:37 AM

**To:** Moats, Nikki B <nikki.b.moats@wv.gov>

**Cc:** Tommy Sweat <tsweat@montrose-env.com>

**Subject:** RE: [External] - Further questions for Tucker and Mercer County Landfill permits

[Quoted text hidden]

## 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 St 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 57<sup>th</sup> 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:

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MERCER COUNTY SOLID WASTE AUTHORITY  
PRINCETON, WEST VIRGINIA**

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**Potential Emissions Calculations ..... Attachment I**



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

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered 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.

<b>11. Mailing Address</b>		
Street or P.O. Box: 749 Frontage Road		
City: Princeton	State: WV	Zip: 24739
Telephone Number: 304-425-3366		Fax Number: 304-487-9455

<b>12. Facility Location (Physical Address)</b>		
Street: 749 Frontage Road	City: Princeton	County: Mercer
UTM Easting: 488.9 km	UTM Northing: 4131.4 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Approximately 1 mile southwest of the intersection of US-19 S and US-460 W, turn left onto Frontage Road in Princeton.		
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). Virginia
Is facility located within 100 km of a Class I Area <sup>1</sup> ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If yes, name the area(s).
If no, do emissions impact a Class I Area <sup>1</sup> ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<sup>1</sup> 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.		

<b>13. Contact Information</b>		
<b>Responsible Official:</b> Elijah A. Testerman		<b>Title:</b> Executive Director
<b>Street or P.O. Box:</b> 749 Frontage Road		
<b>City:</b> Princeton	<b>State:</b> WV	<b>Zip:</b> 24739
<b>Telephone Number:</b> 304-425-2939	<b>Cell Number:</b>	
<b>E-mail address:</b> mcswa@frontiernet.net		
<b>Environmental Contact:</b> Elijah A. Testerman		<b>Title:</b> Executive Director
<b>Street or P.O. Box:</b> 749 Frontage Road		
<b>City:</b> Princeton	<b>State:</b> WV	<b>Zip:</b> 24739
<b>Telephone Number:</b> 304-425-2939	<b>Cell Number:</b>	
<b>E-mail address:</b> mcswa@frontiernet.net		
<b>Application Preparer:</b> Thomas Sweat		<b>Title:</b> Senior Principal
<b>Company:</b> Montrose Environmental Solutions LLC		
<b>Street or P.O. Box:</b> 400 Northridge Rd #400		
<b>City:</b> Sandy Springs	<b>State:</b> GA	<b>Zip:</b> 30350
<b>Telephone Number:</b> 678-336-8530	<b>Cell Number:</b> 678-362-5104	
<b>E-mail address:</b> tsweat@montrose-env.com		

<b>14. Facility Description</b>			
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
MSW Landfill	None	562212	4953
<p><b>Provide a general description of operations.</b></p> <p>Mercer County Landfill is a 266-acre municipal solid waste (MSW) landfill. The facility accepts solid waste, construction/demolition debris and other approved wastes as specified in its Solid Waste Facility Permit No. SWF-7190/WV0109258. Waste is transported to the disposal area where it is placed, compacted and covered with daily soil cover. The landfill has a monthly tonnage limit of 9,999 tons.</p>			
15. Provide an <b>Area Map</b> showing plant location as <b>ATTACHMENT A</b> .			
16. Provide a <b>Plot Plan(s)</b> , e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as <b>ATTACHMENT B</b> . For instructions, refer to "Plot Plan - Guidelines."			
17. Provide a detailed <b>Process Flow Diagram(s)</b> showing each process or emissions unit as <b>ATTACHMENT C</b> . Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.			

**Section 2: Applicable Requirements**

<b>18. Applicable Requirements Summary</b>	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input checked="" type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> Cross-State Air Pollution Rule (45CSR43)	

<b>19. Non Applicability Determinations</b>
<p><b>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.</b></p> <p>40 C.F.R. 60 Subpart Kb: The Leachate Tank's VOL vapor pressure is less than 3.4 kPa.</p> <p>40 C.F.R. 64 Compliance Assurance Monitoring (CAM): The facility does not have a pollutant specific emissions unit with a control device to meet an applicable standard or limit. Therefore, the facility is not subject to the Compliance Assurance Monitoring (CAM) rule.</p>
<input type="checkbox"/> Permit Shield



**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).

40 CFR 60 Subpart A  
40 CFR 60 Subpart WWW  
WV 45CSR23 ("Rule 23")

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.

**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.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit ( <i>if any</i> )
CO-R23, 30-E-2023-05	06/23/2023	N/A



**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	3.34
Nitrogen Oxides (NO <sub>x</sub> )	0
Lead (Pb)	0
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	0.21
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	2.04
Total Particulate Matter (TSP)	6.43
Sulfur Dioxide (SO <sub>2</sub> )	0
Volatile Organic Compounds (VOC)	11.65
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Total HAPs	8.96
Toluene (Max Individual HAP)	3.06
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Hydrogen sulfide	1.04

<sup>1</sup>PM<sub>2.5</sub> and PM<sub>10</sub> are components of TSP.  
<sup>2</sup>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**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input 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 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 type="checkbox"/>	7. Blacksmith forges.
<input 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 type="checkbox"/>	10. CO <sub>2</sub> 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 type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input 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 type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO <sub>x</sub> , SO <sub>2</sub> , 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:

<b>24. Insignificant Activities (Check all that apply)</b>	
<input type="checkbox"/>	<p>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.</p> <p>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:</p>
<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 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 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 type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input 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.

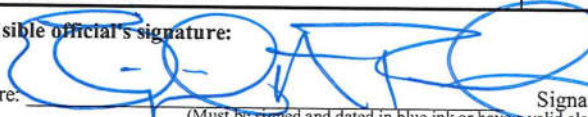


<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these 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 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 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 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 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 type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

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

<b>25. Equipment Table</b>
Fill out the <b>Title V Equipment Table</b> and provide it as <b>ATTACHMENT D</b> .
<b>26. Emission Units</b>
For each emission unit listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Emission Unit Form</b> as <b>ATTACHMENT E</b> .
For each emission unit not in compliance with an applicable requirement, fill out a <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .
<b>27. Control Devices</b>
For each control device listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Air Pollution Control Device Form</b> as <b>ATTACHMENT G</b> .
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 <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as <b>ATTACHMENT H</b> .

**Section 6: Certification of Information**

<b>28. Certification of Truth, Accuracy and Completeness and Certification of Compliance</b>	
<i>Note: This Certification must be signed by a responsible official as defined in 45CSR§30-2.38.</i>	
<b>a. Certification of Truth, Accuracy and Completeness</b>	
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>b. Compliance Certification</b>	
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.	
<b>Responsible official (type or print)</b>	
Name: <b>Elijah A. Testerman</b>	Title: <b>Executive Director</b>
<b>Responsible official's signature:</b>	
Signature: 	Signature Date: <b>10-31-2023</b>
<small>(Must be signed and dated in blue ink or have a valid electronic signature)</small>	

<b>Note: Please check all applicable attachments included with this permit application:</b>	
<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/dag](http://www.dep.wv.gov/dag), requested by phone (304) 926-0475, and/or obtained through the mail.*

# Attachment

A



**Site Location**



400 Northridge Road  
Suite: 400  
Sandy Springs, GA 30350  
404.315.9113



TITLE V PERMIT APPLICATION  
Mercer County Solid Waste Authority  
749 Frontage Rd.  
Princeton, WV 24739

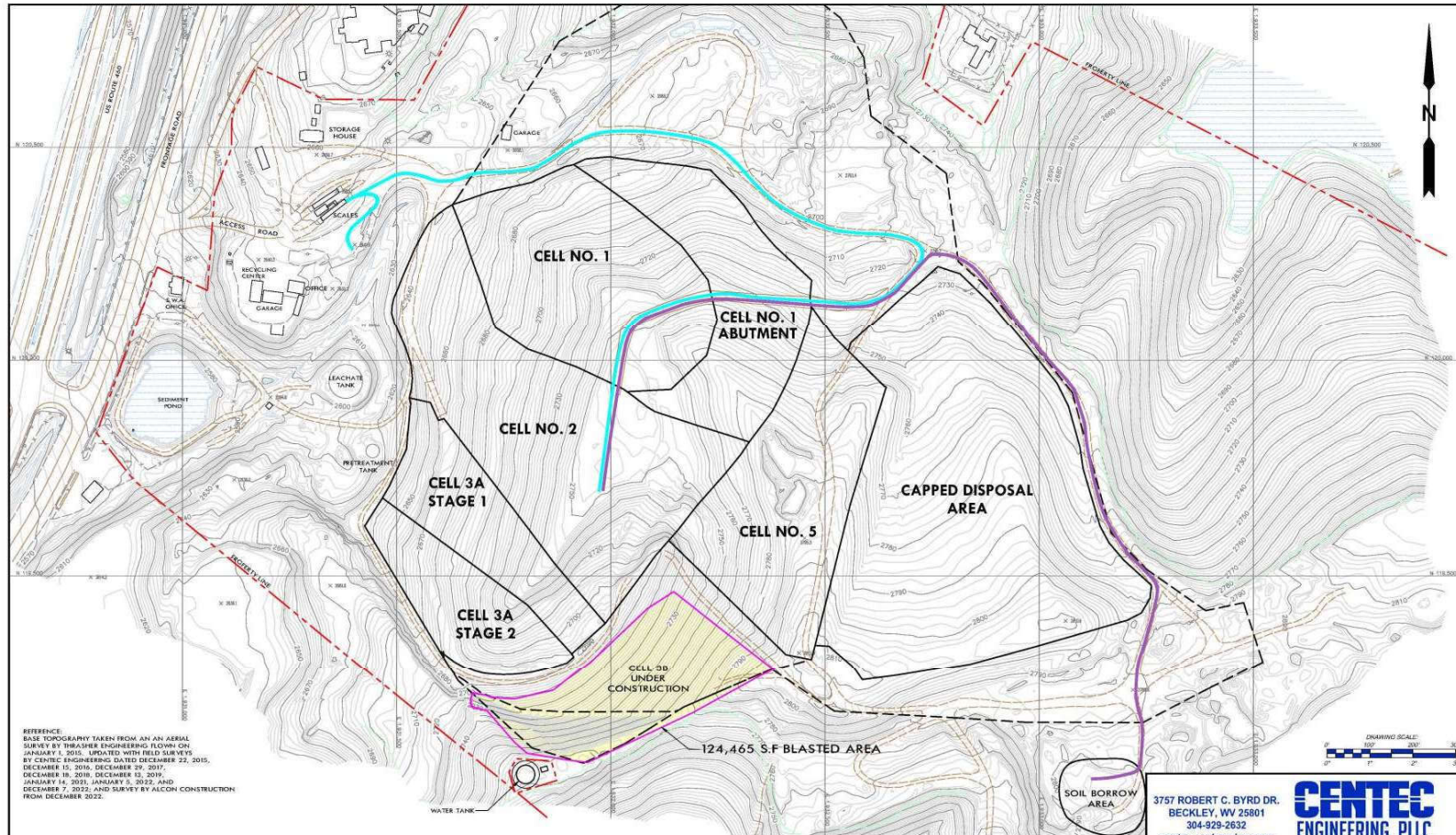
**GENERAL AREA MAP**

**FIGURE**

**A-1**

# Attachment

# B



REFERENCE  
 BASE TOPOGRAPHY TAKEN FROM AN AERIAL  
 SURVEY BY THORNER ENGINEERING FLOREN ON  
 JANUARY 1, 2010. UPDATED WITH FIELD SURVEYS  
 BY CENTEC ENGINEERING DATED DECEMBER 22, 2015,  
 DECEMBER 10, 2016, DECEMBER 29, 2017,  
 DECEMBER 19, 2018, DECEMBER 12, 2019,  
 JANUARY 14, 2020, JANUARY 3, 2022, AND  
 DECEMBER 7, 2022, AND SURVEY BY ALCON CONSTRUCTION  
 FROM DECEMBER 2022.

**LEGEND**

	PROPERTY LINE
	TERRAIN CONTOUR
	WATER
	APPROXIMATE TREE LINE
	APPROXIMATE 2022 BLASTED AREA
	APPROXIMATE WASTE WALKING PATH
	APPROXIMATE ROCK/SOIL HAULING PATH

3757 ROBERT C. BYRD DR.  
 BECKLEY, WV 25801  
 304-929-2632  
 centec-engineering.com



CIVIL and ENVIRONMENTAL ENGINEERS

REV	DESCRIPTION	DATE

<b>TITLE V SITE MAP</b>	
MERCER COUNTY LANDFILL	
MERCER COUNTY SOLID WASTE AUTHORITY PRINCETON, WEST VIRGINIA	
DRAWN BY: CTD	PROJECT NUMBER: 10-023-054
CHECKED BY:	DATE: 08-29-2023
APPROVED BY:	FIGURE NO. 1
<b>DRAWING NO. 10-023-054</b>	



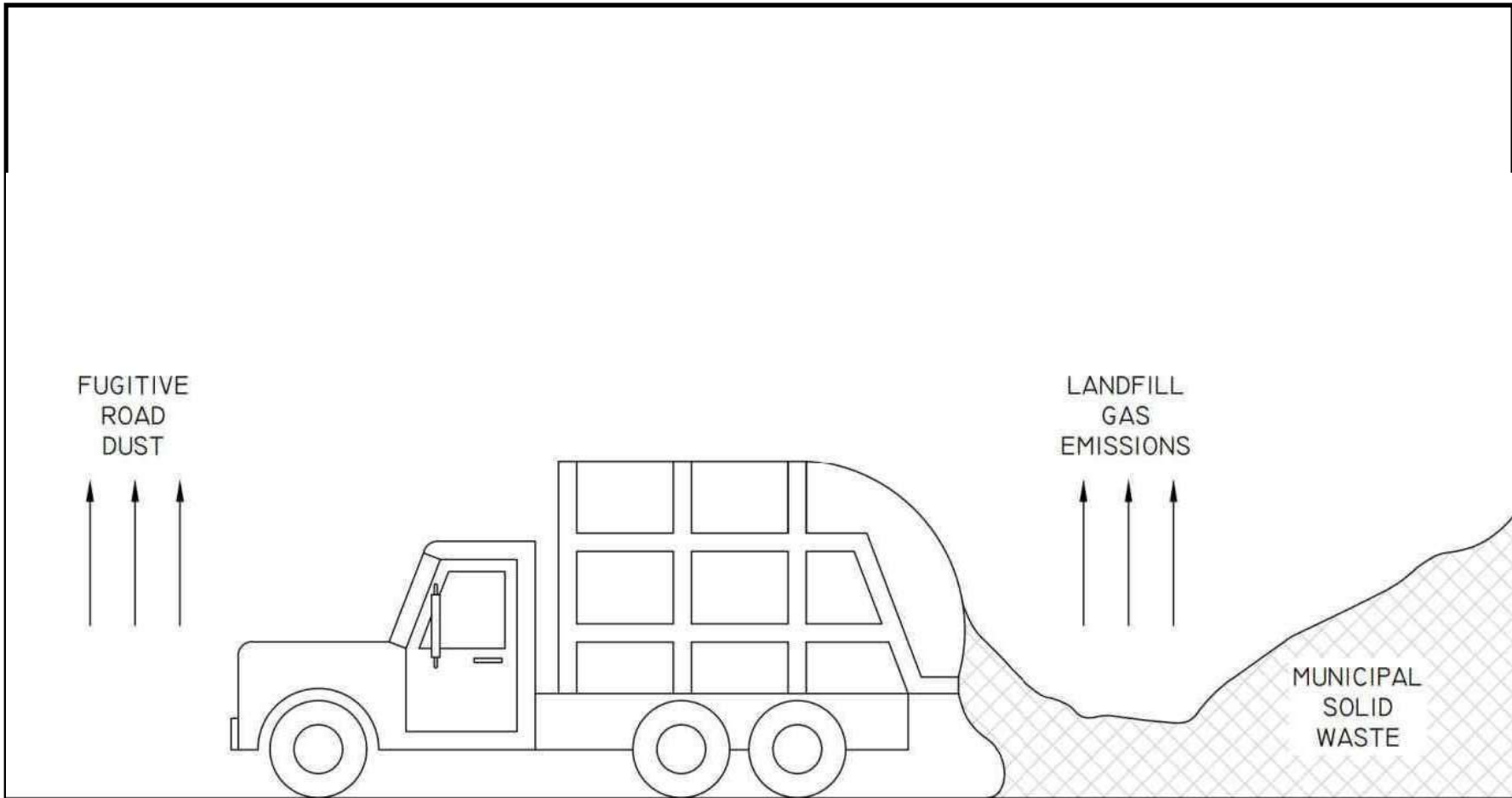
400 Northridge Road  
 Suite 400  
 Sandy Springs, GA 30350  
 Phone (404) 315-9113  
 Fax (404) 315-8509

Facility Layout  
 Mercer County Solid Waste Authority, 749 Frontage Rd.,  
 Princeton, WV 24739  
 Title V Permit Application  
 October 2023

**Figure**  
  
**B-1**

# Attachment C





400 Northridge Road  
 Suite 400  
 Sandy Springs, GA 30350  
 Phone (404) 315-9113  
 Fax (404) 315-8509

Process Flow Diagram  
 Mercer County Solid Waste Authority, 749 Frontage Rd.  
 Princeton, WV 24739

Title V Permit Application  
 October 2023

**Figure**

**C-1**

**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 Unit ID <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
E001	E001	Landfill Solid Waste		2,794,000 Mg	None
T-1	T-1	Diesel Fuel Tank		2000 gal	None
T-2	T-2	Diesel Fuel Tank		700 gal	None
T-3	T-3	Diesel Fuel Tank		350 gal	None
T-4	T-4	Gasoline Tank		500 gal	None
T-5	T-5	Leachate Tank		554,020 gal	None

<sup>1</sup>For 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 Form**

<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> 001	<b>Emission unit name:</b> Landfill Operations	<b>List any control devices associated with this emission unit:</b>	
<p>Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable)</p> <p>Non-Comp. Lined Area: 23. acres m/l                  Closure Area: 12.0 acres m/l                  Existing Disposal Area: 17.0 acres m/l                  Proposed Disposal Area: 28.0 acres m/l</p>			
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA	
<b>Construction date:</b> MM/DD/YYYY	<b>Installation date:</b> MM/DD/YYYY	<b>Modification date(s):</b> MM/DD/YYYY	
<b>Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):</b> 2,794,000 megagrams			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 119,988 tons	<b>Maximum Operating Schedule:</b> 24 hr/day, 365 days/yr	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> NA		<b>Type and Btu/hr rating of burners:</b> NA	
<b>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.</b> NA			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
NA			

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		<b>3.34</b>
Nitrogen Oxides (NO <sub>x</sub> )		<b>0</b>
Lead (Pb)		<b>0</b>
Particulate Matter (PM <sub>2.5</sub> )		<b>0</b>
Particulate Matter (PM <sub>10</sub> )		<b>0</b>
Total Particulate Matter (TSP)		<b>0</b>
Sulfur Dioxide (SO <sub>2</sub> )		<b>0</b>
Volatile Organic Compounds (VOC)		<b>9.39</b>
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs		<b>8.96</b>
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<b>Hydrogen Sulfide</b>		<b>1.04</b>
<p><b>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.).</b></p> <p>CO, VOC and HAP emissions were estimated from the Landfill Gas Emissions Model (LandGEM) computer program. NMOC emissions were estimated from LandGEM using default values for Lo and k.</p> <p>PM-2.5, PM-10 and TSP were estimated using AP-42.</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.

CSR 45-6-3.1 Open burning prohibited  
CSR 45-6-3.2a Open Burning Prohibited  
40 CFR 61.145, 61.148, and 61.150 Asbestos – Facility Inspection  
WV Code 22-5-4(a)(15) Conduct testing as required  
CSR 45-4-3.1 Objectionable odor prohibited  
CSR 45-11-5.2 Submit standby plan if requested  
WV Code 22-5-4(a)(14) Submit annual emission inventory  
CSR 45-23 Incorporate by reference Subparts Cc and WWW  
CSR 45-7 Dust Control  
CSR 45-30 Operating Permit  
40 CFR 60.572(b)(2)(iv) Operational Standards, Compliance Provisions, Monitoring of NMOC operations

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.)

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**

<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> T-1	<b>Emission unit name:</b> Diesel Fuel Tank	<b>List any control devices associated with this emission unit:</b>  NA	
Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable) 2,000 gallon diesel fuel storage tank for on-site equipment use.			
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA	
<b>Construction date:</b> MM/DD/YYYY	<b>Installation date:</b> MM/DD/YYYY	<b>Modification date(s):</b> MM/DD/YYYY	
<b>Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):</b> 2,000 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 13,796 gal	<b>Maximum Operating Schedule:</b> 8760 hours/year	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> NA		<b>Type and Btu/hr rating of burners:</b> NA	
<b>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.</b> NA			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
NA			

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		3.46E-04
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.).**  
Emission Master 8.4.59 TANKS

*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.

None

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.)

None

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*

<b>Emission unit ID number:</b> T-2	<b>Emission unit name:</b> Diesel Fuel Tank	<b>List any control devices associated with this emission unit:</b>  NA
----------------------------------------	------------------------------------------------	-------------------------------------------------------------------------------

Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable)  
700 gallon diesel fuel storage tank for on-site equipment use.

<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA
----------------------------	----------------------------	-----------------------------

<b>Construction date:</b> MM/DD/YYYY	<b>Installation date:</b> MM/DD/YYYY	<b>Modification date(s):</b> MM/DD/YYYY
-----------------------------------------	-----------------------------------------	--------------------------------------------

**Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):**  
700 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 13,796 gal	<b>Maximum Operating Schedule:</b> 8760 hours/year
-----------------------------------	-------------------------------------------------	-------------------------------------------------------

*Fuel Usage Data (fill out all applicable fields)*

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

<b>Maximum design heat input and/or maximum horsepower rating:</b> NA	<b>Type and Btu/hr rating of burners:</b> NA
--------------------------------------------------------------------------	-------------------------------------------------

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.

NA

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
NA			

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		2.05E-4
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.).**  
Emission Master 8.4.59 TANKS

*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.

None

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.)

None

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**

<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> T-3	<b>Emission unit name:</b> Diesel Fuel Tank	<b>List any control devices associated with this emission unit:</b>  NA	
Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable) 350 gallon diesel fuel storage tank for on-site equipment use.			
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA	
<b>Construction date:</b> MM/DD/YYYY	<b>Installation date:</b> MM/DD/YYYY	<b>Modification date(s):</b> MM/DD/YYYY	
<b>Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):</b> 350 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 13,796 gal	<b>Maximum Operating Schedule:</b> 8760 hours/year	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> NA		<b>Type and Btu/hr rating of burners:</b> NA	
<b>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.</b> NA			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
NA			

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		1.64E-4
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>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.).</b></p> <p>Emission Master 8.4.59 TANKS</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.

None

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.*)

None

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**

<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> T-4	<b>Emission unit name:</b> Gasoline Tank	<b>List any control devices associated with this emission unit:</b>  NA	
Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable) 500 gallon gasoline storage tank for fuel supply to site equipment.			
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA	
<b>Construction date:</b> MM/DD/YYYY	<b>Installation date:</b> MM/DD/YYYY 2006	<b>Modification date(s):</b> MM/DD/YYYY	
<b>Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):</b> 500 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 2,119 gal	<b>Maximum Operating Schedule:</b> 8760 hr/yr	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> NA		<b>Type and Btu/hr rating of burners:</b> NA	
<b>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.</b> NA			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
NA			

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		7.56E-2
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.).**  
Emission Master 8.4.59 TANKS



**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.

None

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.)

None

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**

<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> T-5	<b>Emission unit name:</b> Leachate Tank	<b>List any control devices associated with this emission unit:</b>  NA	
Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable) 554,020 gallon leachate storage tank			
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA	
<b>Construction date:</b> MM/DD/YYYY	<b>Installation date:</b> MM/DD/YYYY	<b>Modification date(s):</b> MM/DD/YYYY	
<b>Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):</b> 554,020 gallons			
<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 26,145,317 gallons	<b>Maximum Operating Schedule:</b> 24 hr/day, 365 days/yr	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> NA		<b>Type and Btu/hr rating of burners:</b> NA	
<b>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.</b> NA			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
<b>Fuel Type</b>	<b>Max. Sulfur Content</b>	<b>Max. Ash Content</b>	<b>BTU Value</b>
NA			

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		2.18
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>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.).</b></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.

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.*)

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

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**Emissions Summary**

Pollutant	Emission Rate
	(short tons/year)
Total landfill gas	2.56E+04
<sup>2</sup> Methane	6.83E+03
<sup>2</sup> Carbon Dioxide	1.87E+04
NMOC	9.39E+00
1,1,1-Trichloroethane (methyl chloroform) - HAP	5.45E-02
1,1,2,2-Tetrachloroethane - HAP/VOC	1.57E-01
1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.02E-01
1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	1.65E-02
1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	3.45E-02
1,2-Dichloropropane (propylene dichloride) - HAP/VOC	1.73E-02
2-Propanol (isopropyl alcohol) - VOC	2.56E+00
Acetone	3.46E-01
Acrylonitrile - HAP/VOC	2.85E-01
Benzene - No or Unknown Co-disposal - HAP/VOC	1.26E-01
Benzene - Co-disposal - HAP/VOC	7.32E-01
Bromodichloromethane - VOC	4.32E-01
Butane - VOC	2.47E-01
Carbon disulfide - HAP/VOC	3.76E-02
Carbon monoxide	3.34E+00
Carbon tetrachloride - HAP/VOC	5.24E-04
Carbonyl sulfide - HAP/VOC	2.51E-02
Chlorobenzene - HAP/VOC	2.40E-02
Chlorodifluoromethane	9.57E-02
Chloroethane (ethyl chloride) - HAP/VOC	7.14E-02
Chloroform - HAP/VOC	3.05E-03
Chloromethane - VOC	5.16E-02
Dichlorobenzene - (HAP for para isomer/VOC)	2.63E-02
Dichlorodifluoromethane	1.65E+00
Dichlorofluoromethane - VOC	2.28E-01
Dichloromethane (methylene chloride) - HAP	1.01E+00
Dimethyl sulfide (methyl sulfide) - VOC	4.13E-01
Ethane	2.28E+01
Ethanol - VOC	1.06E+00
Ethyl mercaptan (ethanethiol) - VOC	1.22E-01
Ethylbenzene - HAP/VOC	4.16E-01
Ethylene dibromide - HAP/VOC	1.60E-04
Fluorotrichloromethane - VOC	8.89E-02
Hexane - HAP/VOC	4.84E-01
Hydrogen sulfide	1.04E+00
Mercury (total) - HAP	4.95E-05

Mercer County Solid Waste Authority  
Emissions Inventory - Initial Title V Permit Application

Methyl ethyl ketone - HAP/VOC	4.36E-01
Methyl isobutyl ketone - HAP/VOC	1.62E-01
Methyl mercaptan - VOC	1.02E-01
Pentane - VOC	2.03E-01
Perchloroethylene (tetrachloroethylene) - HAP	5.22E-01
Propane - VOC	4.13E-01
t-1,2-Dichloroethene - VOC	2.31E-01
Toluene - No or Unknown Co-disposal - HAP/VOC	3.06E+00
Toluene - Co-disposal - HAP/VOC	1.33E+01
Trichloroethylene (trichloroethene) - HAP/VOC	3.13E-01
Vinyl chloride - HAP/VOC	3.88E-01
Xylenes - HAP/VOC	1.08E+00
<sup>1</sup> Particulate Matter	6.43E+00
<sup>1</sup> PM-10	2.04E+00
<sup>1</sup> PM-2.5	2.05E-01

Total Facility Emissions Calculation	Potential Emissions (tons)
Landfill VOC (NMOC)	9.39E+00
Leachate VOC Emissions	2.18E+00
Diesel Tank VOC Emissions	7.16E-04
Gasoline Tank VOC Emissions	7.56E-02
<b>Total VOC Emissions</b>	<b>11.65</b>
<b>Total HAP Emissions</b>	<b>8.96</b>

**Notes:**

<sup>1</sup>Values pasted from LandGEM for all pollutants with exception of PM, PM-10, and PM-2.5. These are totaled from the "Daily Cover" and "Road Dust" Tabs.

<sup>2</sup>Carbon Dioxide and Methane are non-regulated emissions.

<sup>3</sup>For benzene and toluene, only the no-co-disposal values are considered in emission totals, since this landfill does not accept hazardous waste, so co-disposal emission estimates are not applicable.





Mercer County Solid Waste Authority  
Emissions Inventory - Initial Title V Permit Application

**INVENTORY**

**Landfill Name or Identifier:** MCSWA Sanitary Landfill

Enter year of emissions inventory:

Gas / Pollutant	Emission Rate				
	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)	(ft <sup>3</sup> /year)	(short tons/year)
Total landfill gas	2.324E+04	1.861E+07	1.250E+03	6.572E+08	2.556E+04
Methane	6.208E+03	9.305E+06	6.252E+02	3.286E+08	6.828E+03
Carbon dioxide	1.703E+04	9.305E+06	6.252E+02	3.286E+08	1.874E+04
NMOC	8.538E+00	2.382E+03	1.600E-01	8.412E+04	9.392E+00
1,1,1-Trichloroethane (methyl chloroform) - HAP	4.957E-02	8.933E+00	6.002E-04	3.155E+02	5.452E-02
1,1,2,2-Tetrachloroethane - HAP/VOC	1.429E-01	2.047E+01	1.375E-03	7.229E+02	1.572E-01
1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	1.839E-01	4.466E+01	3.001E-03	1.577E+03	2.022E-01
1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	1.501E-02	3.722E+00	2.501E-04	1.314E+02	1.651E-02
1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	3.140E-02	7.630E+00	5.127E-04	2.695E+02	3.455E-02
1,2-Dichloropropane (propylene dichloride) - HAP/VOC	1.574E-02	3.350E+00	2.251E-04	1.183E+02	1.732E-02
2-Propanol (isopropyl alcohol) - VOC	2.326E+00	9.305E+02	6.252E-02	3.286E+04	2.559E+00
Acetone	3.147E-01	1.303E+02	8.753E-03	4.600E+03	3.462E-01
Acrylonitrile - HAP/VOC	2.587E-01	1.172E+02	7.877E-03	4.140E+03	2.846E-01
Benzene - No or Unknown Co-disposal - HAP/VOC	1.149E-01	3.536E+01	2.376E-03	1.249E+03	1.264E-01
Benzene - Co-disposal - HAP/VOC	6.651E-01	2.047E+02	1.375E-02	7.229E+03	7.316E-01
Bromodichloromethane - VOC	3.931E-01	5.769E+01	3.876E-03	2.037E+03	4.324E-01
Butane - VOC	2.249E-01	9.305E+01	6.252E-03	3.286E+03	2.474E-01
Carbon disulfide - HAP/VOC	3.418E-02	1.079E+01	7.252E-04	3.812E+02	3.760E-02
Carbon monoxide	3.035E+00	2.605E+03	1.751E-01	9.201E+04	3.339E+00
Carbon tetrachloride - HAP/VOC	4.763E-04	7.444E-02	5.002E-06	2.629E+00	5.239E-04
Carbonyl sulfide - HAP/VOC	2.278E-02	9.119E+00	6.127E-04	3.220E+02	2.506E-02
Chlorobenzene - HAP/VOC	2.178E-02	4.652E+00	3.126E-04	1.643E+02	2.396E-02
Chlorodifluoromethane	8.701E-02	2.419E+01	1.625E-03	8.544E+02	9.571E-02
Chloroethane (ethyl chloride) - HAP/VOC	6.492E-02	2.419E+01	1.625E-03	8.544E+02	7.141E-02
Chloroform - HAP/VOC	2.772E-03	5.583E-01	3.751E-05	1.972E+01	3.050E-03
Chloromethane - VOC	4.690E-02	2.233E+01	1.500E-03	7.886E+02	5.159E-02
Dichlorobenzene - (HAP for para isomer/VOC)	2.389E-02	3.908E+00	2.626E-04	1.380E+02	2.628E-02
Dichlorodifluoromethane	1.497E+00	2.978E+02	2.001E-02	1.052E+04	1.647E+00
Dichlorofluoromethane - VOC	2.071E-01	4.838E+01	3.251E-03	1.709E+03	2.278E-01
Dichloromethane (methylene chloride) - HAP	9.204E-01	2.605E+02	1.751E-02	9.201E+03	1.012E+00
Dimethyl sulfide (methyl sulfide) - VOC	3.751E-01	1.452E+02	9.753E-03	5.126E+03	4.126E-01
Ethane	2.071E+01	1.656E+04	1.113E+00	5.849E+05	2.279E+01
Ethanol - VOC	9.630E-01	5.025E+02	3.376E-02	1.774E+04	1.059E+00
Ethyl mercaptan (ethanethiol) - VOC	1.106E-01	4.280E+01	2.876E-03	1.512E+03	1.217E-01
Ethylbenzene - HAP/VOC	3.780E-01	8.560E+01	5.752E-03	3.023E+03	4.158E-01
Ethylene dibromide - HAP/VOC	1.454E-04	1.861E-02	1.250E-06	6.572E-01	1.600E-04
Fluorotrichloromethane - VOC	8.082E-02	1.414E+01	9.503E-04	4.995E+02	8.890E-02
Hexane - HAP/VOC	4.403E-01	1.228E+02	8.252E-03	4.338E+03	4.843E-01
Hydrogen sulfide	9.496E-01	6.699E+02	4.501E-02	2.366E+04	1.045E+00
Mercury (total) - HAP	4.503E-05	5.397E-03	3.626E-07	1.906E-01	4.953E-05
Methyl ethyl ketone - HAP/VOC	3.963E-01	1.321E+02	8.878E-03	4.666E+03	4.359E-01
Methyl isobutyl ketone - HAP/VOC	1.473E-01	3.536E+01	2.376E-03	1.249E+03	1.620E-01
Methyl mercaptan - VOC	9.310E-02	4.652E+01	3.126E-03	1.643E+03	1.024E-01
Pentane - VOC	1.843E-01	6.141E+01	4.126E-03	2.169E+03	2.027E-01
Perchloroethylene (tetrachloroethylene) - HAP	4.749E-01	6.886E+01	4.626E-03	2.432E+03	5.224E-01
Propane - VOC	3.754E-01	2.047E+02	1.375E-02	7.229E+03	4.129E-01
t-1,2-Dichloroethene - VOC	2.101E-01	5.211E+01	3.501E-03	1.840E+03	2.311E-01
Toluene - No or Unknown Co-disposal - HAP/VOC	2.781E+00	7.258E+02	4.876E-02	2.563E+04	3.059E+00
Toluene - Co-disposal - HAP/VOC	1.212E+01	3.164E+03	2.126E-01	1.117E+05	1.334E+01
Trichloroethylene (trichloroethene) - HAP/VOC	2.848E-01	5.211E+01	3.501E-03	1.840E+03	3.133E-01
Vinyl chloride - HAP/VOC	3.531E-01	1.359E+02	9.128E-03	4.798E+03	3.885E-01
Xylenes - HAP/VOC	9.860E-01	2.233E+02	1.500E-02	7.886E+03	1.085E+00

### Waste Accepted (tons)

MERCER COUNTY LANDFILL MAX TONNAGE TOTALS	
2023 MAX	119,988
Month	Waste Acceptance (Tons)
Jan	9,999.00
Feb	9,999.00
Mar	9,999.00
Apr	9,999.00
May	9,999.00
Jun	9,999.00
Jul	9,999.00
Aug	9,999.00
Sep	9,999.00
Oct	9,999.00
Nov	9,999.00
Dec	9,999.00

**Daily Cover Loading/Unloading**

Emission Factor,  $E = k(0.0032)[(u/5)^{1.3}/(M/2^{1.4})]$

Where, k = Particle Size Multiplier  
 u = mean wind speed (mph)  
 M = moisture content (%)

	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
k =	0.74	0.35	0.11
u =	6.2	6.2	6.2
M =	6.7	6.7	6.7

<b>Emissions Factor (lbs/ton)</b>	<b>0.0006</b>	<b>0.0003</b>	<b>0.0001</b>
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Daily Cover Tonnage = 11,999  
 (10% of Waste Disposal)

<b>UNCONTROLLED</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
Pounds per Year	<b>6.92</b>	<b>3.27</b>	<b>1.03</b>
Tons per Year	<b>0.0035</b>	<b>0.0016</b>	<b>0.0005</b>

<b>CONTROLLED</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
Tons per year	0.0069	0.0033	0.0010

Control Efficiency 0

Emission Factor Calculation Source: AP-42 Section 13.2.4

**Diesel Emissions from Emission Master 8.4.59 TANKS**

Emissions From Vessel: Mercer Landfill Diesel Tank 1

	Effective Vp (mmHg)	Working (lb)	Breathing (lb)	Total (lb)	Rate (lb/hr)
[Non Condensables]					
Air	693.4778	129.4077	180.6542	310.0619	0.0354
[Condensables]					
No. 2 Fuel Oil (Diesel)					
VOC	0.3453	0.276	0.4168	0.6928	7.91E-05
Annual VOC Emissions:				3.46E-04	tons

**Diesel Emissions from Emission Master 8.4.59 TANKS**

Emissions From Vessel: Mercer Landfill Diesel Tank 2

	Effective Vp (mmHg)	Working (lb)	Breathing (lb)	Total (lb)	Rate (lb/hr)
[Non Condensables]					
Air	693.4848	129.4077	58.2005	187.6082	0.0214
[Condensables]					
No. 2 Fuel Oil (Diesel)					
VOC	0.3383	0.276	0.1347	0.4107	4.69E-05
Annual VOC Emissions:				2.05E-04	tons

**Diesel Emissions from Emission Master 8.4.59 TANKS**

Emissions From Vessel: Mercer Landfill Diesel Tank 3

	Effective Vp (mmHg)	Working (lb)	Breathing (lb)	Total (lb)	Rate (lb/hr)
[Non Condensables]					
Air	693.4877	120.0589	31.2044	151.2633	0.0173
[Condensables]					
No. 2 Fuel Oil (Diesel)					
VOC	0.3354	0.2561	0.0723	0.3283	3.75E-05
Annual VOC Emissions:				1.64E-04	tons

**SOLID WASTE HAULING  
UNPAVED ROADS**

Emission Factor, E =  $[k(s/12)^a(W/30)^b] \cdot ((365-p)/365)$

Where, k = Particle Size Multiplier  
 s = Silt Content of Road Surface (%)  
 a = 0.8  
 W = Average Vehicluar Weight (tons)  
 b = 0.4  
 M = Moisture Content of Road Surface  
 c = 0.3  
  
 p = Days With 0.10 Inches or Greater Precipitation

	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
k =	4.9	1.5	0.15
s =	6.4	6.4	6.4
a =	0.7	0.9	0.9
W =	8	8	8
b =	0.45	0.45	0.45
M =	1	1	1
c =	0.3	0.2	0.2
C =	0.00047	0.00047	0.00036
p =	150	150	150

	<b>Emissions Factor (lbs/vehicle-mile)</b>	<b>1.78</b>	<b>0.57</b>	<b>0.06</b>
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Landfill Disposal Tonnage = 119,988

Tons per Trip 5.00

Trips per Year 23997.6

Miles per Round Trip 1

Miles per year 23997.6

<b>UNCONTROLLED</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
Pounds per Year	<b>42796.03</b>	<b>13570.49</b>	<b>1357.05</b>
Pounds per Ton	<b>0.36</b>	<b>0.11</b>	<b>0.01</b>
Tons per Year	<b>21.40</b>	<b>6.79</b>	<b>0.68</b>

**CONTROLLED EMISSIONS**

Control Efficiency 0.7

<b>CONTROLLED</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
Tons per year	<b>6.42</b>	<b>2.04</b>	<b>0.20</b>

**Gasoline Emissions from Emission Master 8.4.59 TANKS**

Emissions From Vessel: : Mercer Landfill Gasoline Tank

	Effective Vp (mmHg)	Working (lb)	Breathing (lb)	Total (lb)	Rate (lb/hr)
[Non Condensables]					
Air	461.7251	12.4805	119.5259	132.0064	0.0151

	(mmHg)	(lb)	(lb)	(lb)	(lb/hr)
[Condensables]					
Gasoline RVP10	232.098	16.7948	134.3797	151.1744	1.73E-02

Annual VOC Emissions: 7.56E-02 tons