



LCS SERVICES, INC.
LCS Services Landfill
911 Allensville Road
Hedgesville, West Virginia 25427

July 09, 2020

Received
July 15, 2020
WV DEP/Div of Air Quality

WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, West Virginia 25304

Re: Title V Operating Permit Renewal Application
North Mountain Sanitary Landfill
Permit No. R30-00300036-2016

To Whom It May Concern:

Attached please find the Title V Operating Permit Renewal Application for North Mountain Sanitary Landfill, Title V Permit No. R30-00300036-2016.

Waste Management is committed to conducting operations in a manner that protects the environment and our employees, neighbors and customers. We proactively work to implement programs to prevent pollution, while complying with legal requirements and ensuring compliance. Should you have any questions or require additional information, please contact me via e-mail at dbergan@wm.com.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Dan Bergan', written over a circular scribble.

Dan Bergan
Environmental Protection Manager
WPA/WV/MD/VA Market Area

w/enclosures

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 ATTACHMENTS 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:**

Title V Operating Permit Renewal Application North Mountain Sanitary Landfill Title V Permit No. R30-00300036-2016

Prepared For:

LCS Services, Inc.
911 Allensville Road
Hedgesville, WV 25427
304-754-9153

Submitted To:

West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

SCS ENGINEERS

02218017.02 | July 2020

11260 Roger Bacon Drive
Suite 300
Reston, VA 20187
703-471-6150

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1 INTRODUCTION

The North Mountain Sanitary Landfill (landfill), located in Hedgesville, WV, is owned and operated by LCS Services, Inc. Per 45 CSR §23.7.2.c, because the design capacity of the landfill exceeds 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³), the landfill is subject to the Title V Operating Permit (TVOP) program under 45 CSR 30. The landfill operates in accordance with TVOP No. 003-00300036-2016. The current TVOP was issued on January 21, 2016 and will expire on January 21, 2021. This application is submitted to renew the landfill's current TVOP.

Because the landfill commenced construction before July 17, 2014, the landfill is subject to Title 45 Series 23 (45 CSR 23), which incorporates the requirements of 40 CFR 60 Subpart Cf. In accordance with 45 CSR §23.7.9.a and §23.7.9.c, the landfill submitted an initial design capacity report and non-methane organic compound (NMOC) emission rate report on May 22, 2019 to the Division of Air Quality (DAQ) of the West Virginia Department of Environmental Protection (WVDEP). As shown in the NMOC emission rate report, the NMOC emission rate of the landfill is currently below 34 Mg per year. Therefore, the landfill is not yet subject to the collection and control system requirements of §23.7.4.b and §23.7.4.c. Because the NMOC emission rate is below 50 Mg per year, the landfill is not yet subject to the requirements of NESHAP 40 CFR 63 Subpart AAAAA.

The following changes to the TVOP are requested with this application:

1. Incorporation of State EG and Removal of Federal NSPS – As noted above, the landfill is subject to the applicable requirements of 45 CSR 23 Section 7, which became effective on June 1, 2018. As such, we request that these requirements be incorporated into the TVOP.

Per 40 CFR §60.750(d)(1), because the landfill is now subject to an approved and effective state plan that implements Subpart Cf, the landfill is no longer subject to the requirements of 40 CFR 60 Subpart WWW. As such, we request that the Subpart WWW requirements be removed from the TVOP.

2. Removal of C1 – Control device C1 has been removed from the facility and should be removed from the TVOP.
3. Removal of 009A and 009B (Leachate Pretreatment Tanks) – As demonstrated in **Appendix A**, these tanks are insignificant sources because potential emissions are well below 1 pound per hour (lb/hr). These tanks are also exempt from NSPS 40 CFR 60 Subpart Kb per §60.110b(b) because the maximum vapor pressure is well below 3.5 kilopascals (kPa).

The following items are included with this application:

- Title V General Application Form
- Attachment A: Area Map
- Attachment B: Plot Plan
- Attachment C: Process Flow Diagram
- Attachment D: Equipment Table
- Attachment E: Emission Unit Forms
- Attachment G: Air Pollution Control Device Form
- Application Checklist

2 TITLE V PERMIT RENEWAL APPLICATION



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
July 15, 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: P.O. Box 1070		
City: Hedgesville	State: WV	Zip: 25427
Telephone Number: (304) 754-9153	Fax Number:	

12. Facility Location		
Street: 911 Allensville Road	City: Hedgesville	County: Berkeley
UTM Easting: 243.35 km	UTM Northing: 4,384.46 km	Zone: <input type="checkbox"/> 17 or <input checked="" type="checkbox"/> 18
<p>Directions: From I-81 take exit for State Route 9 (Berkeley Springs/Hedgesville). Go approximately 5 miles to Hedgesville and turn right onto County Route 901. Go approximately 1 mile, and take a left onto County Route 3/2 (Allensville Road). Go approximately 0.8 miles on Allensville Road, and the landfill entrance is on the left.</p>		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
----- <input type="checkbox"/> ----- <input checked="" type="checkbox"/> -----		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). Pennsylvania, Virginia, and Maryland.
----- <input checked="" type="checkbox"/> ----- <input type="checkbox"/> -----		If yes, name the area(s). Shenandoah National Park
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input 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: John Wardzinski		Title: Senior District Manager
Street or P.O. Box: P.O. Box 1070		
City: Hedgesville	State: WV	Zip: 25427
Telephone Number: (717) 895-6020	Fax Number: (304) 754-3196	
E-mail address: jwardzin@wm.com		
Environmental Contact: Daniel Bergan		Title: Manager Environmental Protection
Street or P.O. Box: P.O. Box 1070		
City: Hedgesville	State: WV	Zip: 25427
Telephone Number: (267) 246-8952	Fax Number: (866) 659-1232	
E-mail address: dbergan@wm.com		
Application Preparer: Jacob Shepherd		Title: Senior Project Engineer
Company: SCS Engineers		
Street or P.O. Box: 11260 Roger Bacon Drive, Suite 300		
City: Reston	State: VA	Zip: 20190
Telephone Number: (703) 471-6150	Fax Number: (703) 471-6676	
E-mail address: jshepherd@scsengineers.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
Sanitary Landfill	Waste disposal	562212	4953

Provide a general description of operations.

The North Mountain Sanitary Landfill is a municipal solid waste (MSW) management facility. The landfill accepts municipal solid waste, construction/demolition/debris (CDD), and approved residual waste streams.

- 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.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS (see note below)	<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"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations
<p>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.</p> <p>45CFR23.7.9.b: The design capacity of this facility is greater than 2.5 million megagrams and 2.5 million cubic meters. Therefore, amended capacity reports are not required.</p> <p>40CFR61, Subpart M--National Emission Standard for Asbestos. The facility does not accept asbestos waste.</p> <p>40CFR64--Compliance Assurance Monitoring (CAM). The facility does not have a pollutant specific emissions unit with a control device used to meet an applicable standard or limit. The flare is for odor control and not to comply with any emission limits. Therefore, the facility is not subject to the CAM rule.</p> <p><i>continued on next page</i></p>
<p><input checked="" type="checkbox"/> Permit Shield</p>

Note: The landfill is subject to 45 CSR 23 Section 7, which incorporates and implements the requirements of 40 CFR 60 Subpart Cf under Section 111.

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.

40CFR63, Subpart AAAA--NESHAP for Municipal Solid Waste Landfills. This facility is not subject to AAAA because: This MSW landfill is not a major source of HAPs; the MSW landfill is not collocated with a major source of HAPs; the MSW landfill is an area source with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, but estimated uncontrolled emissions are less than 50 megagrams per year NMOCs; and this MSW landfill does not include a bioreactor, as defined in 40 CFR §63.1990.

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).

Open burning. The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]

Open burning exemptions. The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation
Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. [45CSR§6-3.2.]

Asbestos. The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. [40 C.F.R. §61.145(b) and 45CSR34]

Odor. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. [45CSR§4-3.1 State-Enforceable only.]

Standby plan for reducing emissions. When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. [45CSR§11-5.2]

Emission inventory. The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. [W.Va. Code § 22-5-4(a)(14)]

Ozone-depleting substances. For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

- Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
- Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.
- Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

Risk Management Plan. Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71. [40 C.F.R. 68]

No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution. [45CSR§17-3.1. State-Enforceable only.]

continued on next page

Facility-Wide Applicable requirements (continued)

The permittee shall submit a control program upon the request of the Secretary, when the permitted facility is in violation of rule 45CSR17. The Secretary may require the permittee to utilize a system to minimize fugitive particulate matter that may include, but is not limited to, the following:

- a. Use, where practicable, of water or chemicals for control of particulate matter in demolition of existing buildings or structures, construction operations, grading of roads or the clearing of land;*
- b. Application of asphalt, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can create airborne particulate matter;*
- c. Covering of material transport vehicles, or treatment of cargo, to prevent contents from dripping, sifting, leaking or otherwise escaping and becoming airborne, and prompt removal of tracked material from roads or streets.*

[45CSR§§17-3.2. & 4.1. State-Enforceable only.]

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.)

Monitoring Requirements – None.

Testing Requirements

The permittee conducts stack testing (if required) in accordance with **WV Code §§ 22-5-4(a)(14-15)** and **45CSR13**.

Recordkeeping Requirements

The permittee maintains records of all monitoring information in accordance with **45CSR§30-5.1c.2.A** and **45CSR13**.

The permittee retains records of monitoring data and support information for at least 5 years in accordance with **40CSR§30-5.1.c.2.B**.

The permittee maintains records of all odor complaints and response actions in accordance with **45CSR§30-5.1.c State Enforceable only**.

Reporting Requirements

All submittals prepared by the permittee contain the certification of the responsible official in accordance with **45CSR§§30-4.4 and 5.1.c.3.D**.

The permittee submits a certified emission statement and pays annual fees in accordance with **45CSR§30-8**.

The permittee prepares and submits an annual compliance certification by March 15 in accordance with **45CSR§30-5.3.e**.

The permittee prepares and submits semi-annual monitoring reports by March 15 and September 15 in accordance with **45CSR§30-5.1.c.3.A**.

The permittee records and reports any deviations from the permit in accordance with **45CSR§30-5.1.c.3.C** and **45CSR§30-5.1.c.3.B**.

The permittee complies with applicable requirements promulgated during a permit term in accordance with timelines in the applicable requirements.

[45 CSR 30.4.3.h.1.B]

Are you in compliance with all facility-wide applicable requirements? Yes

No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**. N/A

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	96.14
Nitrogen Oxides (NO _x)	21.07
Lead (Pb)	N/A
Particulate Matter (PM _{2.5}) ¹	23.09
Particulate Matter (PM ₁₀) ¹	26.45
Total Particulate Matter (TSP)	104.04
Sulfur Dioxide (SO ₂)	83.53
Volatile Organic Compounds (VOC)	14.32
Hazardous Air Pollutants ²	Potential Emissions
Total HAPs	11.50
Regulated Pollutants other than Criteria and HAP	Potential Emissions

¹PM_{2.5} and PM₁₀ are components of TSP.
²For 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 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. CO2 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 ¹ Rock crushers ¹ Portable compressors ¹ Leachate heater ² Leachate pretreatment tanks ²

Notes:

1. See October 2015 Title V Renewal Application
2. See Appendix A

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 checked="" type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" 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 checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input checked="" 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 checked="" 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 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: John Wardzinski

Title: Senior District Manager

Responsible official's signature:

Signature: John Wardzinski (Must be signed and dated in blue ink) Signature Date: 7/13/20

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 checked="" 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.

3 APPLICATION ATTACHMENTS

Attachment A – Area Map

Attachment B – Plot Plan

Attachment C – Process Flow Diagram

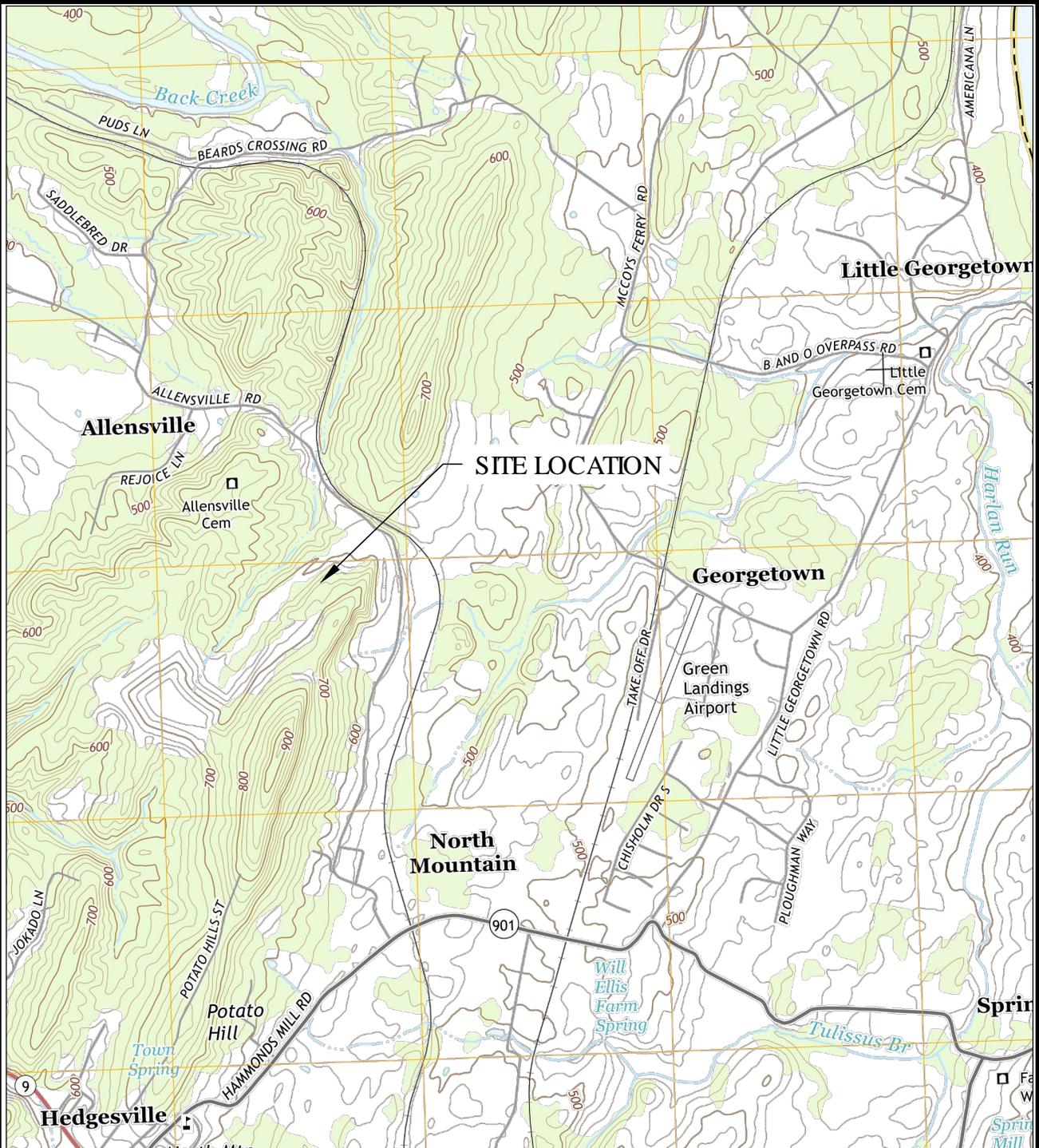
Attachment D – Equipment Table

Attachment E – Emission Unit Form (Emission Unit 001)

Attachment E – Emission Unit Form (Control Device/Flare C2)

Attachment G – Air Pollution Control Device Form

FILE NAME: LOCATION MAP.DWG
DATE: JUNE 2020
DRAWN BY: JWS



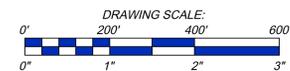
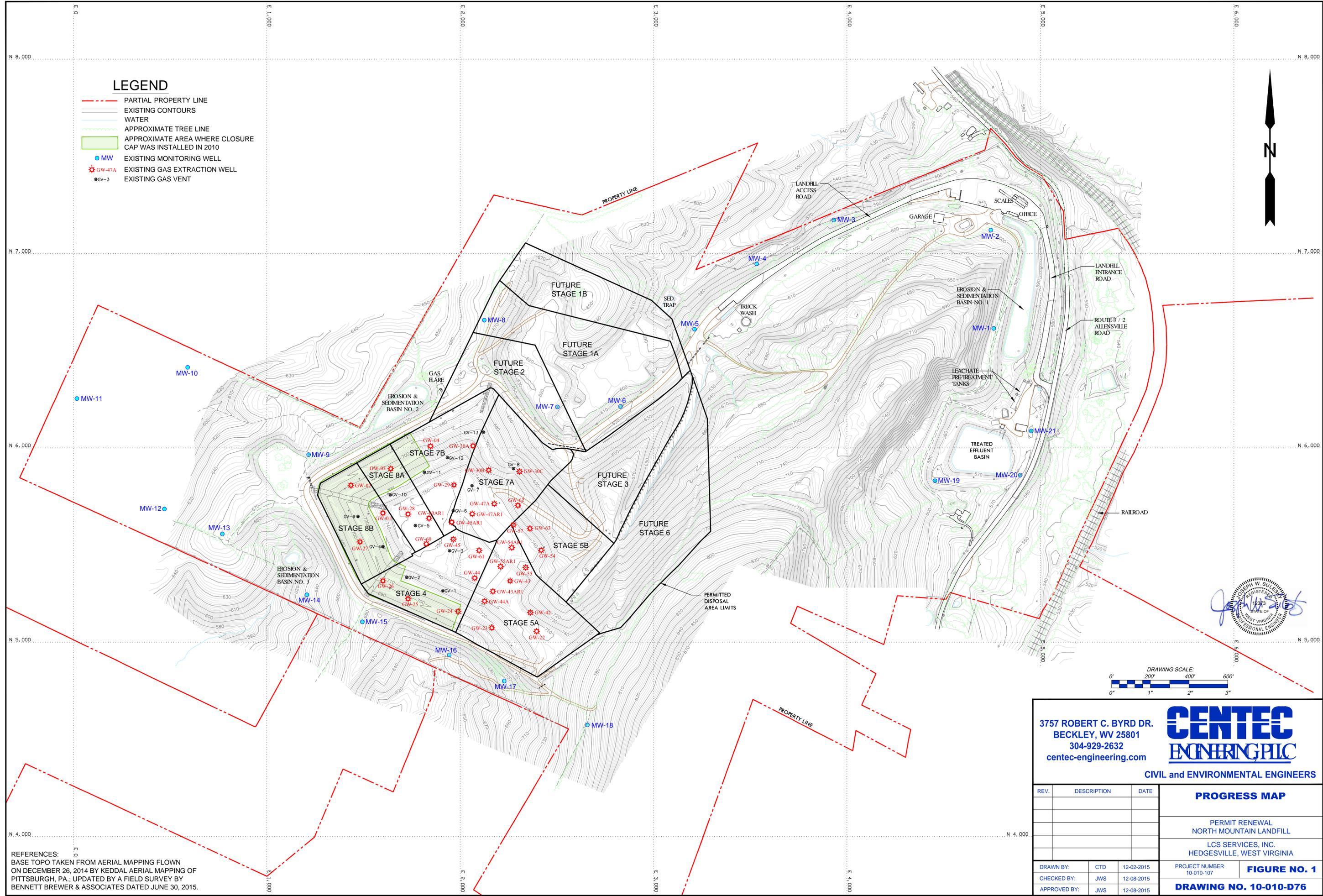
TOPOGRAPHY MAP FROM THE U.S. GEOLOGICAL SURVEY HEDGESVILLE WV-MD 7.5-MINUTE QUADRANGLE

SCS ENGINEERS

ATTACHMENT A - AREA MAP - NORTH MOUNTAIN SANITARY LANDFILL

LEGEND

- PARTIAL PROPERTY LINE
- EXISTING CONTOURS
- WATER
- APPROXIMATE TREE LINE
- APPROXIMATE AREA WHERE CLOSURE CAP WAS INSTALLED IN 2010
- MW EXISTING MONITORING WELL
- ✱ GW-47A EXISTING GAS EXTRACTION WELL
- GV-3 EXISTING GAS VENT



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CIVIL and ENVIRONMENTAL ENGINEERS

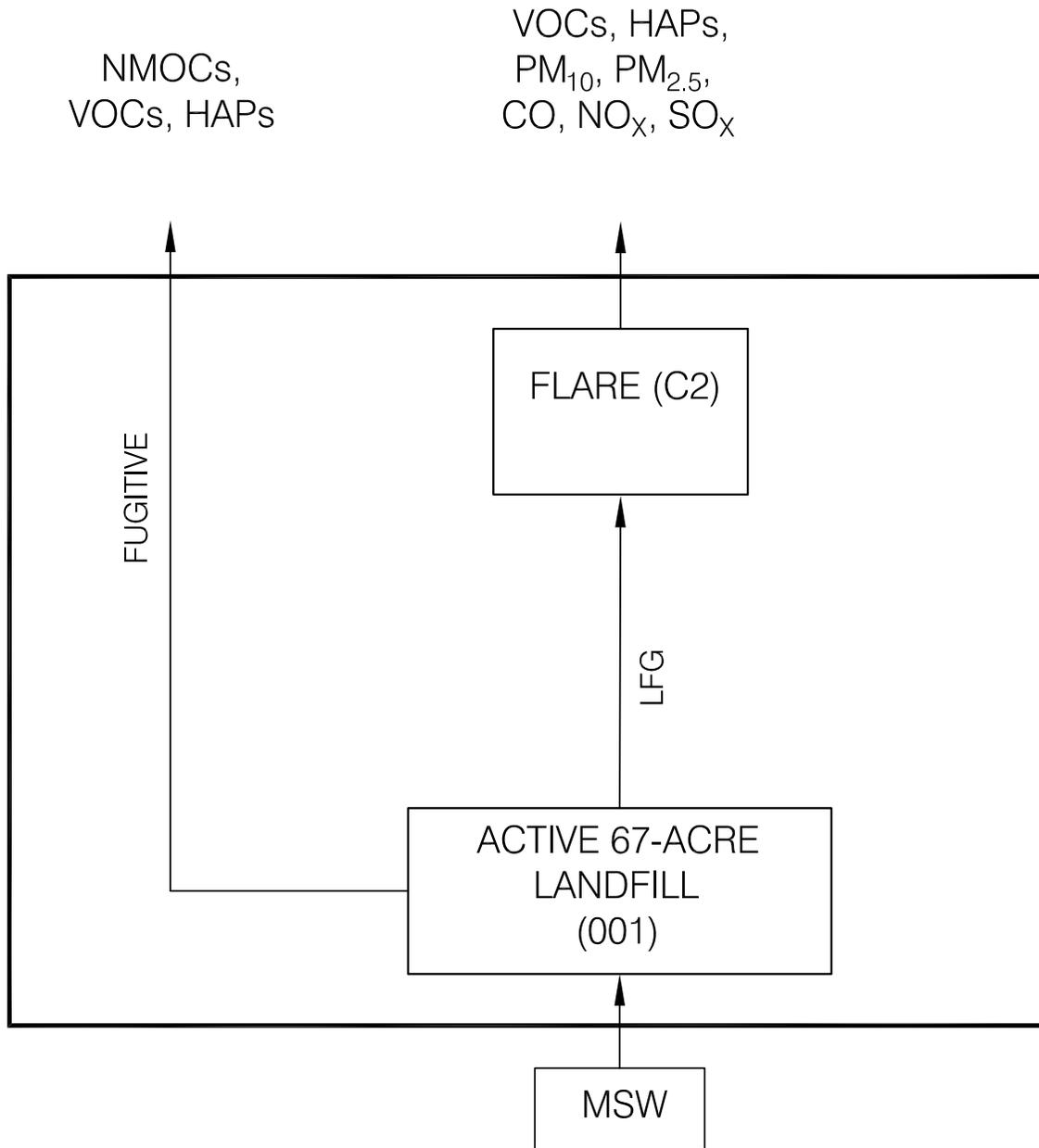
REV.	DESCRIPTION	DATE	PROGRESS MAP	
			LCS SERVICES, INC. HEDGESVILLE, WEST VIRGINIA	
			PROJECT NUMBER 10-010-107	
			FIGURE NO. 1	
DRAWN BY: CTD 12-02-2015			DRAWING NO. 10-010-D76	
CHECKED BY: JWS 12-08-2015				
APPROVED BY: JWS 12-08-2015				

REFERENCES:
 BASE TOPO TAKEN FROM AERIAL MAPPING FLOWN
 ON DECEMBER 26, 2014 BY KEDDAL AERIAL MAPPING OF
 PITTSBURGH, PA.; UPDATED BY A FIELD SURVEY BY
 BENNETT BREWER & ASSOCIATES DATED JUNE 30, 2015.

FILE NAME: 02218017.02

DATE: JUN 2020

DRAWN BY: JWS



SCS ENGINEERS

ATTACHMENT C - PROCESS FLOW DIAGRAM

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 001	Emission unit name: Active 67-acre landfill	List any control devices associated with this emission unit: Flare (C2)
--	---	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Active municipal solid waste (MSW) landfill. Landfill gas generated by the landfill is collected and routed to a landfill gas flare for control.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
-----------------------------	-----------------------------	------------------------------

Construction date: (MM/DD/YYYY) 1991	Installation date: (MM/DD/YYYY) N/A	Modification date(s): (MM/DD/YYYY) N/A
--	---	--

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6,667,920 megagrams

Maximum Hourly Throughput: N/A	Maximum Annual Throughput: N/A	Maximum Operating Schedule: 24 hours/day, 365 days/year
--	--	---

Fuel Usage Data (fill out all applicable fields)

<p>DOES THIS EMISSION UNIT COMBUST FUEL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>	<p>If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired</p>
--	--

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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	13.72	17.83
Particulate Matter (PM ₁₀)	16.30	21.19
Total Particulate Matter (TSP)	75.98	98.78
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	2.89	12.67
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	2.06	9.03
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.).

Potential emissions were previously submitted in the October 2015 Title V permit renewal application. Emissions in pounds per hour (PPH) for PM_{2.5}, PM₁₀, and TSP are based on a 10-hour working day at 5 days per week. Emissions in PPH for VOCs and HAPs are based on 8,760 hours per year. Facility-wide emissions including the landfill and flare C2 are included in Appendix A.

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.

45 CSR §23-7:

7.4.d Design capacity. -- Each owner or operator of an MSWL having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Secretary per subdivision 7.9.a. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. The owner or operator shall document any density conversions and submit them with the report. Submittal of the initial design capacity report satisfies the requirements of section 7, except as provided in paragraphs 7.4.d.1 and 7.4.d.2.

7.4.d.1. The owner or operator shall submit an amended design capacity report if required by subdivision 7.9.b.

7.4.d.1.A. If the design capacity increase is the result of a modification that was commenced after July 17, 2014, then the landfill becomes a new MSWL subject to section 5.

7.4.d.1.B. If the design capacity increase is the result of a change in operating practices, density or some other change that is not a modification, then the landfill remains an existing MSWL subject to section 7.

7.4.d.2. *Not applicable*

7.4.e. Each owner or operator of a MSWL with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall either install a collection and control system according to subdivisions 7.4.b and 7.4.c or calculate an initial NMOC emission rate for the landfill using the procedures specified in subdivision 7.6.a. The NMOC emission rate shall be recalculated annually except as provided in paragraph 7.9.c.3.

7.4.e.1. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator shall:

7.4.e.1.A. Submit an annual NMOC emission rate report per 7.9.c except as provided in 7.9.c.3; and

7.4.e.1.B. Recalculate the NMOC emission rate annually per subdivision 7.6.a until either the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed.

7.4.e.1.B.1. If the initial or annual calculated NMOC emission rate is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.4.e.1.B.1.(a) Comply with subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.1.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.1.(c) Conduct a surface emission monitoring demonstration according to paragraph 7.6.a.11.

7.4.e.1.B.2. The owner or operator shall submit a closure report per subdivision 7.9.f if the landfill is permanently closed, except for the exemption allowed under paragraph 7.2.d.4.

7.4.e.1.B.3. *Not applicable*

7.4.e.2. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2 or 3 procedures, the owner or operator shall either:

7.4.e.2.A. Submit a collection and control system design plan prepared by a professional engineer to the Secretary within one year as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.2.B. Calculate the NMOC emissions using a higher tier in section 7.6; or

7.4.e.2.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.e.3. *Not applicable*

7.6 Testing requirements – Determine the NMOC emission rate using Tier 1, 2, 3, or 4 procedures in accordance with 45 CSR §23.7.6.

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.)

An initial design capacity report and NMOC emission rate report were submitted to the DAQ on May 22, 2019, in accordance with the requirements of 45 CSR §23.7.9. In accordance with §23.7.10.a, the landfill maintains on-site records of the design capacity report, current amount of solid waste in place, and year-by-year waste acceptance rate for at least 5 years.

Currently, the NMOC emission rate is below 34 Mg per year. The landfill conducts site-specific NMOC testing at least every 5 years and submits regular NMOC emission rate reports in accordance with 7.6.a.8.C.

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**. N/A

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: C2	Emission unit name: LFG utility flare	List any control devices associated with this emission unit: N/A
---------------------------------------	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Utility flare used for the control of landfill gas.

Manufacturer: LFG Specialties	Model number: CF1227I10	Serial number:
Construction date: (MM/DD/YYYY) Completed January 2019	Installation date: (MM/DD/YYYY) Completed January 2019	Modification date(s): (MM/DD/YYYY) N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,360 scfm

Maximum Hourly Throughput: 141,600 scf	Maximum Annual Throughput: 1,240.42 MMscf	Maximum Operating Schedule: 24 hours/day, 365 days/year
--	---	---

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: 70.8 MMBtu/hour (based on HHV for methane and LFG methane content of 50 percent)	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: 141,600 scf/hour (maximum design rating)
Propane (secondary; for pilot flame)

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	815 (ppmv)	N/A	Varies

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	21.95	96.14
Nitrogen Oxides (NO _x)	4.81	21.07
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	1.20	5.26
Particulate Matter (PM ₁₀)	1.20	5.26
Total Particulate Matter (TSP)	1.20	5.26
Sulfur Dioxide (SO ₂)	19.07	83.53
Volatile Organic Compounds (VOC)	0.38	1.65
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	0.56	2.47
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>Potential emissions for Flare C2 for NO_x, CO, particulate matter, VOC, and HAPs were established in the June 2018 NSR/Title V Permit Application. Potential emissions for SO₂ were established in the April 2019 NSR/Title V Permit Application.</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, R13-2590 4.1.1 -- Emissions of the utility flare shall not exceed those limits shown in the Title V operating permit; the annual utility flare throughput the utility flare shall not exceed 1,240.42 MMscf/yr on a 12-month rolling basis; utility flare throughput shall be continuously measured and recorded; a flame shall be present at all times during operation of the utility flare; the utility flare shall operate with no visible emissions, except for those outlined in 45CSR§6-4.3; the utility flare shall not combust landfill gas with a concentration of hydrogen sulfide greater than 815 ppmv, as outlined in 45CSR§10-5.1; and compliance with the emission limit of sulfur dioxide shall be demonstrated using the actual landfill gas flows and measured concentration of hydrogen sulfide.

45CSR§13-5.10, 45CSR13, R13-2590 4.1.2 -- Operate and maintain the utility flare with safety and good air pollution control practices for minimizing emissions.

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.)

The permittee monitors the flare for visible emissions on a minimum monthly frequency [45 CSR 30.5.1.c] and monitors for the continuous presence of a flame. Exceedances of the allowable visible emission requirement are reported if applicable in accordance with Permit No. R30-00300036-2016 Condition No. 4.5.5. Records of the landfill gas flow rate are maintained in accordance with the permit.

The concentration of hydrogen sulfide in the landfill gas is measured at least once every year and records of sulfur dioxide emissions from the utility flare are maintained [45 CSR 10.8.2.c.3]. If a hydrogen sulfide analysis exceeds Permit No. R30-00300036-2016 Condition No. 4.1.5.g., the DAQ is notified in accordance with Condition No. 4.5.6.

The permittee maintains records of all emission data and operating parameters in accordance with Permit No. R30-00300036-2016 Condition No. 4.4.1 [45 CSR 23].

The permittee records any malfunctions or operational shutdown events of the utility flare during which excess emissions occur, in accordance with Permit No. R30-00300036-2016 Condition No. 4.4.3.

An annual NMOC emission rate report is submitted in accordance with Permit No. R30-00300036-2016 Condition No. 4.5.1. and 45 CSR 23.

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**. N/A

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C2	List all emission units associated with this control device. 001
--	--

Manufacturer: LFG Specialties	Model number: CF1227I10	Installation date: MM/DD/YYYY Completed January 2019
---	-----------------------------------	--

Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Absorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input checked="" type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC	N/A	98%
HAPs	N/A	98%
NMOCs	N/A	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

LFG utility flare with a maximum design rating of 2,360 scfm.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Control device not used to achieve compliance with an emission standard or limitation.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Monitoring for visible emissions, the continuous presence of a flame, and volume of landfill gas throughput.



Appendix A

Emissions Information

**Insignificant Source Demonstration
Leachate Treatment Tank Heater**

Calculated By: JWS
Checked By: REC

Pollutant	Emission Factor	Emission Rate		Insignificant Source Threshold	Insignificant Emission Unit
		(lb/hr)	(tpy)	(lb/hr)	
NOx	13 lb/10 ³ gal	0.21	0.94	1	Yes
CO	7.5 lb/10 ³ gal	0.12	0.54	1	Yes
Total PM	0.7 lb/10 ³ gal	0.01	0.05	1	Yes
SO ₂	1.5 lb/10 ³ gal	0.02	0.11	1	Yes
VOC	1.0 lb/10 ³ gal	0.02	0.07	1	Yes

Notes:

1. Emission factors are based on Table 1.5-1 of the EPA's AP-42 guidance document. Sulfur dioxide (SO₂) emissions are based on a commercial propane sulfur content of 15 grains per 100 ft³.
2. Emissions are based on a rated heat input of 1.5 MMBTU/hr and a heat content of propane of 0.091 MMBTU/gal.

Sample Calculations:

Nitrogen Oxides (NOx) Calculation:

$$\text{NOx Emissions (lb/hr)} = (\text{Heat Rating, MMBTU/hr}) * (\text{Propane Heat Content, MMBTU/gal}) * (\text{Emission Factor, lb/10}^3 \text{ gal})$$

$$\text{NOx Emissions} = (1.5 \text{ MMBTU/hr}) * (0.091 \text{ MMBTU/gal}) * (13 \text{ lb/10}^3 \text{ gal})$$

$$\text{NOx Emissions} = 0.21 \text{ lb/hr}$$

Sulfur Dioxide (SO₂) Calculation:

$$\text{SOx Emissions (lb/hr)} = (\text{Heat Rating, MMBTU/hr}) * (\text{Propane Heat Content, MMBTU/gal}) * (\text{Emission Factor, lb-10}^2 \text{ ft}^3/\text{10}^3 \text{ gal-grain S}) * (\text{Fuel Sulfur Content, grains/10}^2 \text{ ft}^3)$$

$$\text{SOx Emissions} = (1.5 \text{ MMBTU/hr}) * (0.091 \text{ MMBTU/gal}) * (0.1 \text{ lb-10}^2 \text{ ft}^3/\text{10}^3 \text{ gal-grain S}) * (15 \text{ grains S/10}^2 \text{ ft}^3)$$

$$\text{SOx Emissions} = 0.02 \text{ lb/hr}$$

**Insignificant Source Demonstration
Leachate Pretreatment Tanks (2)**

Compound	CAS	Mol. Wt. (g/mol)	Conc. (µg/L)	Mol. Conc. (mol/L)	Henry's Law Constant (atm-m ³ /mol)	Vapor Press. (atm)	Vapor Press. (kPa)
1,1,1,2-Tetrachloroethane	630-20-6	167.85	0.5	2.98E-09	2.50E-03	7.45E-09	7.55E-07
1,1,1-Trichloroethane	71-55-6	133.41	0.5	3.75E-09	1.72E-02	6.45E-08	6.53E-06
1,1,2,2-Tetrachloroethane	79-34-5	167.85	0.5	2.98E-09	3.45E-04	1.03E-09	1.04E-07
1,1,2-Trichloroethane	79-00-5	133.4	0.5	3.75E-09	8.24E-04	3.09E-09	3.13E-07
1,1-Dichloroethane	75-34-3	98.96	0.5	5.05E-09	5.62E-03	2.84E-08	2.88E-06
1,1-Dichloroethene	75-35-4	96.94	0.5	5.16E-09	2.61E-02	1.35E-07	1.36E-05
1,2,3-Trichloropropane	96-18-4	147.43	0.5	3.39E-09	3.43E-04	1.16E-09	1.18E-07
1,2-Dichlorobenzene	95-50-1	147	0.5	3.40E-09	1.92E-03	6.53E-09	6.62E-07
1,2-Dichloroethane	107-06-2	98.96	0.5	5.05E-09	1.18E-03	5.96E-09	6.04E-07
1,2-Dichloropropane	78-87-5	112.99	0.5	4.43E-09	2.82E-03	1.25E-08	1.26E-06
1,4-Dichlorobenzene	106-46-7	147	0.5	3.40E-09	2.41E-03	8.20E-09	8.31E-07
2-Hexanone	591-78-6	100.16	1.2	1.20E-08	9.32E-05	1.12E-09	1.13E-07
4-Methyl-2-Pentanone	108-10-1	100.16	3.3	3.29E-08	1.38E-04	4.55E-09	4.61E-07
Acetone	67-64-1	58.08	188	3.24E-06	3.50E-05	1.13E-07	1.15E-05
Acrylonitrile	107-13-1	53.06	2	3.77E-08	1.38E-04	5.20E-09	5.27E-07
Benzene	71-43-2	78.11	0.5	6.40E-09	5.55E-03	3.55E-08	3.60E-06
Bromochloromethane	74-97-5	129.38	0.5	3.86E-09	1.46E-03	5.64E-09	5.72E-07
Bromomethane	74-83-9	94.94	0.5	5.27E-09	7.34E-03	3.87E-08	3.92E-06
Carbon Disulfide	75-15-0	76.14	0.5	6.57E-09	1.44E-02	9.46E-08	9.58E-06
Carbon Tetrachloride	56-23-5	153.82	0.5	3.25E-09	2.76E-02	8.97E-08	9.09E-06
Chlorobenzene	108-90-7	112.56	0.5	4.44E-09	3.11E-03	1.38E-08	1.40E-06
Chlorodibromomethane	124-48-1	208.28	0.5	2.40E-09	7.83E-04	1.88E-09	1.90E-07
Chloroethane	75-00-3	64.51	0.5	7.75E-09	1.11E-02	8.60E-08	8.72E-06
Chloromethane	74-87-3	50.49	0.5	9.90E-09	8.82E-03	8.73E-08	8.85E-06
cis-1,2-Dichloroethene	156-59-2	96.94	0.5	5.16E-09	4.08E-03	2.10E-08	2.13E-06
cis-1,3-Dichloropropene	10061-01-5	110.97	0.5	4.51E-09	3.55E-03	1.60E-08	1.62E-06
Dibromomethane	74-95-3	173.83	0.5	2.88E-09	8.22E-04	2.36E-09	2.40E-07
Dichlorobromomethane	75-27-4	163.83	0.5	3.05E-09	2.12E-03	6.47E-09	6.56E-07
Ethylbenzene	100-41-4	106.17	0.5	4.71E-09	7.88E-03	3.71E-08	3.76E-06
Iodomethane	74-88-4	141.94	0.5	3.52E-09	6.24E-03	2.20E-08	2.23E-06
Methyl Ethyl Ketone	78-93-3	72.11	196	2.72E-06	5.69E-05	1.55E-07	1.57E-05
Methylene Chloride	75-09-2	84.9238	0.5	5.89E-09	3.25E-03	1.91E-08	1.94E-06
Styrene	79637-11-9	104.15	0.5	4.80E-09	2.75E-03	1.32E-08	1.34E-06
Tetrachloroethene	127-18-4	165.83	0.5	3.02E-09	1.77E-02	5.34E-08	5.41E-06

**Insignificant Source Demonstration
Leachate Pretreatment Tanks (2)**

Compound	CAS	Mol. Wt. (g/mol)	Conc. (µg/L)	Mol. Conc. (mol/L)	Henry's Law Constant (atm-m ³ /mol)	Vapor Press. (atm)	Vapor Press. (kPa)
Toluene	108-88-3	92.14	0.5	5.43E-09	6.64E-03	3.60E-08	3.65E-06
trans-1,2-Dichloroethene	156-60-5	96.94	0.5	5.16E-09	4.08E-03	2.10E-08	2.13E-06
trans-1,3-Dichloropropene	10061-02-6	110.97	0.5	4.51E-09	3.55E-03	1.60E-08	1.62E-06
trans-1,4-Dichloro-2-butene	110-57-6	125	1	8.00E-09	6.64E-04	5.31E-09	5.38E-07
Tribromomethane	75-25-2	252.73	0.5	1.98E-09	5.35E-04	1.06E-09	1.07E-07
Trichloroethene	79-01-6	131.39	0.5	3.81E-09	9.85E-03	3.75E-08	3.80E-06
Trichlorofluoromethane	75-69-4	137.37	0.5	3.64E-09	9.70E-02	3.53E-07	3.58E-05
Trichloromethane	67-66-3	119.38	0.5	4.19E-09	3.67E-03	1.54E-08	1.56E-06
Vinyl Acetate	108-05-4	86.09	0.5	5.81E-09	5.11E-04	2.97E-09	3.01E-07
Vinyl Chloride	75-01-4	62.5	0.5	8.00E-09	2.78E-02	2.22E-07	2.25E-05
Total Xylene	Varies	106.17	1	9.42E-09	5.18E-03	4.88E-08	4.94E-06
Total Vapor Pressure =	1.98E-04	kPa					
x Safety Factor	10						
Total Vapor Pressure (w/s.f.) =	0.00	kPa					
Tank Vol. >151m ³ ?	Yes						
Vapor Pressure Limit	3.5	kPa					
Below Limit?	Yes						
NSPS Subpart Kb Applicable?	No						
Potential Emission Calculations							
VOC Conc.	411.5	µg/L					
x Safety Factor	10						
VOC Conc. (w/s.f.)	4115	µg/L					
Potential VOC Emissions	0.14	lb/hr					

Notes:

- Henry's Law Constants based on values published in the EPA's Regional Screening Tables.
- Analyte concentrations in the treated leachate referenced from laboratory results prepared by Geochemical Testing (Lab Order G1703585) for samples collected May 31, 2019. Compounds below the detection limit were conservatively assumed to be present at the detection limit.
- Emissions were conservatively calculated based on a maximum treatment capacity of 100,000 gpd.



Appendix B

Application Checklist

**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 checked="" 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