



DEPARTMENT ORDER

**Waste Management Disposal
Services of Maine, Inc.
d/b/a Crossroads Landfill
Somerset County
Norridgewock, Maine
A-816-70-H-R**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal**

FINDINGS OF FACT

After review of the Part 70 License renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Waste Management Disposal Services of Maine, Inc. (WMDSM) d/b/a Crossroads Landfill
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	562212
NATURE OF BUSINESS	Solid Waste Landfill
FACILITY LOCATION	357 Mercer Road, Norridgewock, Maine

Waste Management Disposal Services of Maine, Inc. (WMDSM) d/b/a Crossroads Landfill is a municipal solid waste landfill which operates a landfill gas-to-energy plant consisting of two internal combustion engines which fire landfill gas. WMDSM's facility also includes two flares and two backup emergency generators.

WMDSM has the potential to emit more than 100 tons per year (tpy) of sulfur dioxide (SO₂) and carbon monoxide (CO); therefore, the source is classified as a major source for criteria pollutants.

WMDSM does not have the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP; therefore, the source is classified as an area source for HAP.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Process Equipment

Equipment	Design Capacity	Maximum Flow Rate (scfm)
Flare #1	60.0 MMBtu/hr	2,000
Flare #3	75.0 MMBtu/hr	2,500
Solid Waste Landfill	15,463,993 m ³	n/a

Note: The landfill design capacity listed above reflects the estimated capacity of the landfill at the time of license issuance. It is not intended to be a license restriction.

Landfill Gas-to-Energy Engines

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Output	Fuel Type, % sulfur	Stack #
Engine #1	17.9	1,600 kW 2,233 bhp	landfill gas, < 1,500 ppmv	4
Engine #2	17.9	1,600 kW 2,233 bhp	landfill gas, < 1,500 ppmv	5

Emergency Generators

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Output (Hp)	Fuel Type, % sulfur	Install. Date
Generator #1	0.9	129	distillate fuel, 0.0015%	2002
Generator #2	0.7	100	distillate fuel, 0.0015%	2002

Generator #3 was removed from the facility in 2016. All previous license requirements for this equipment are therefore considered obsolete and have been removed.

WMDSM may operate aqueous-based parts washers. If the cleaning solution contains less than 5% VOC, it does not meet the definition of solvent cleaning machine, and there are

no applicable requirements in *Solvent Cleaners*, 06-096 C.M.R. ch. 130. As such, they are considered insignificant activities.

WMDSM has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

C. Acronyms and Units of Measure

ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BPT	Best Practical Treatment
C&D	construction and demolition
C.F.R.	Code of Federal Regulations
C.M.R.	Code of Maine Rules
CAM	Compliance Assurance Monitoring
CEDRI	Compliance and Emissions Data Reporting Interface
CEMS	Continuous Emissions Monitoring System
CH ₄	methane
CMS	Continuous Monitoring System
CO	Carbon Monoxide
CO _{2e}	Carbon Dioxide equivalent
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Parameter Monitoring System
EPA or US EPA	United States Environmental Protection Agency
GHG	Greenhouse Gases
g/bhp-hr	grams per brake horsepower hour
HAP	Hazardous Air Pollutants
lb	pound
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
LFG	landfill gas
LFGTE	landfill gas-to-energy
M.R.S.	Maine Revised Statutes
MMBtu	Million British Thermal Units
MMBtu/hr	Million British Thermal Units per hour

NESHAP	National Emissions Standards for Hazardous Air Pollutants
NMOC	non-methane organic compound
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
O ₂	Oxygen
PM	Particulate Matter less than 100 microns in diameter
PM ₁₀	Particulate Matter less than 10 microns in diameter
PM _{2.5}	Particulate Matter less than 2.5 microns in diameter
ppmv	parts per million on a volume basis
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RICE	Reciprocating Internal Combustion Engine
SO ₂	Sulfur Dioxide
tpy	ton per year
TRS	total reduced sulfur
VOC	Volatile Organic Compounds

D. Definitions

Distillate Fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Portable or Non-Road Engine means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

Records or Logs mean either hardcopy or electronic records.

E. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for WMDSM does not include the licensing of increased emissions or the installation of new or modified equipment; therefore, the license is considered to be a Part 70 License renewal issued under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

F. Facility Description

WMDSM operates an active municipal solid waste landfill. Gases formed from the decomposition of the landfill materials are collected and fired in the facility's landfill gas-to-energy (LFGTE) engines located in the LFGTE plant. WMDSM has two flares. The flares may be used as backup landfill gas control devices or operated simultaneously with the LFGTE plant. WMDSM also has two stationary emergency backup generators.

G. General Facility Requirements

WMDSM is subject to the following state and federal regulations listed below in addition to the regulations listed for specific units as described further in this license.

Citation	Requirement Title
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations

Citation	Requirement Title
06-096 C.M.R. ch. 143	New Source Performance Standards
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 60, Subpart XXX	Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014
40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 70	State Operating Permit Programs
40 C.F.R. Part 98	Mandatory Greenhouse Gas Reporting

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. NO_x RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 (NO_x RACT) is applicable to sources that have the potential to emit quantities of NO_x equal to or greater than 100 tons/year. Annual emissions of NO_x from WMDSM are limited to less than 100 ton/year. Therefore, NO_x RACT does not apply to this facility.

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year. Annual emissions of VOC from WMDSM are limited to less than 40 ton/year. Therefore, VOC RACT does not apply to this facility.

D. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64 is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100% of the major source threshold.

Although WMDSM manages the acceptance of construction and demolition material to minimize emissions of TRS and SO₂, this is considered a passive control measure that does not meet the definition of *control device* contained in 40 C.F.R. Part 64, shown below (emphasis added).

Control device means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices (such as carbon beds), condensers, scrubbers (such as wet collection and gas absorption devices), selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems (such as water, steam, ammonia, sorbent or limestone injection), and combustion devices independent of the particular process being conducted at an emissions unit (e.g., the destruction of emissions achieved by venting process emission streams to flares, boilers or process heaters). For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feedstocks, or the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of this part.

Emissions of VOC from the landfill are controlled by the facility's flares and may have pre-control emissions greater than the major source threshold. However, 40 C.F.R. § 64.2(b)(1)(i) specifies the exemption from CAM requirements for any emission unit subject to emission limitations or standards in a NSPS or NESHAP regulation proposed by the Administrator after November 15, 1990. [40 C.F.R. Part 64 § 64.2(b)]

The following table lists all the specific pollutants for each unit meeting CAM applicability criteria and the determination of the applicability of CAM requirements for each.

40 C.F.R. Part 64 Applicability Table

Unit	Pollutant	CAM Required	Reason	Regulatory Authority
Landfill	VOC	No	Subject to standards in NSPS 40 C.F.R. Part 60, Subpart XXX	40 C.F.R. § 64.2(b)(1)(i)
	SO ₂	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)

Therefore, there are no units at this facility subject to CAM requirements.

E. Distillate Fuel Sulfur Content Requirements

The emergency generators are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use at this facility shall not exceed 0.0015% by weight (15 ppm).

F. Solid Waste Landfill

WMDSM operates a municipal solid waste landfill with a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters. At the time of this license, the calculated non-methane organic compound (NMOC) emission rate is less than 34 megagrams per year.

1. Emissions of SO₂

Emissions of SO₂ from the landfill are caused by combustion of total reduced sulfur (TRS) compounds in the landfill gas either in the LFGTE engines or the flares.

The main source of TRS at landfills is gypsum wallboard. It is common for two waste types, construction and demolition debris (C&D) and C&D Fines, to contribute to elevated TRS concentrations. C&D Fines are made up of smaller pieces with a larger surface area that allows for increased biodegradation of the sulfur/sulfate containing compounds. They therefore contribute to higher TRS emissions when biological degradation occurs. WMDSM does not typically accept C&D Fines. As a result, elevated TRS concentrations in the landfill gas have not been experienced at this landfill. WMDSM controls emissions of SO₂ by managing the acceptance of material to limit TRS concentrations within the LFG to less than 1,500 ppmv at 50% methane on average. This limit is comparable to concentrations at other landfill facilities in Maine.

The initial testing schedule for TRS in the landfill gas was monthly. Due to the historically low concentration of TRS in the landfill gas at WMDSM, the frequency of the testing may vary according to the frequency outlined below.

The TRS testing frequency decreases according to the following schedule:

WMDSM shall sample the TRS concentration of the landfill gas monthly. The frequency of TRS sampling shall be reduced to once quarterly if the results of the monthly sampling are less than 1,000 ppm for 12 consecutive monthly monitoring events, and to once annually if the results of quarterly sampling are less than 500 ppm for four (4) consecutive quarterly monitoring events.

The TRS testing frequency shall increase according to the following schedule:

If the frequency of sampling the landfill gas for TRS is reduced to annually and the results of two (2) consecutive sampling events exceed 500 ppm, WMDSM shall increase the sampling frequency to quarterly. If the frequency of sampling the landfill gas for TRS is reduced to less than monthly (quarterly or annually) and the results of two (2) consecutive sampling events exceeds 1,000 ppm, WMDSM shall increase the sampling frequency to monthly.

If the frequency of sampling the landfill gas for TRS is increased, it may be subsequently decreased according to the schedule established above.

If the average TRS in the landfill gas exceeds 1,250 ppmv at 50% methane during two consecutive monitoring events, WMDSM shall reassess BACT for SO₂ from the landfill and submit the revised BACT analysis to the Department within 90 days.

2. National Emission Standards for Hazardous Air Pollutants (NESHAP)

WMDSM is not a major source of HAP and has demonstrated that estimated uncontrolled emissions of NMOC are less than 50 megagrams per year. Therefore, WMDSM is not subject to *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills*, 40 C.F.R. Part 63, Subpart AAAA.

As described later in this license, WMDSM must submit regular NMOC emission rate reports to the Department and EPA. If the NMOC emission rate exceeds 50 megagrams per year, within 60 days of the NMOC emission rate report submittal, WMDSM shall submit to the Department an application for a Part 70 Administrative Revision to address the applicable requirements of 40 C.F.R. Part 63, Subpart AAAA.
[06-096 C.M.R. ch. 140, § 3(E)(7)(a)(vii)(d)]

3. New Source Performance Standards

WMDSM was previously subject to *Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014*, 40 C.F.R. Part 60, Subpart WWW. However, on June 30, 2019, WMDSM commenced construction on a modification (Phase 8 Sideslope Modification). Therefore, this facility is now subject to *Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014*, 40 C.F.R. Part 60, Subpart XXX. The landfill was further modified on May 11, 2021 (Phase 14 expansion).

WMDSM shall comply with all applicable requirements of 40 C.F.R. Part 60, Subpart XXX including, but not limited to, the following:

a. Design Capacity Report

An initial design capacity report was submitted to the Department and EPA within 90 days of commencing construction on the modification that made the landfill subject to 40 C.F.R. Part 60, Subpart XXX. Since WMDSM is already greater than 2.5 million megagrams and 2.5 million cubic meters, an amended design capacity report is not required for future modifications. [40 C.F.R. § 767(a)]

b. NMOC Emission Rate Report

Except as described below, WMDSM shall recalculate the annual NMOC emission rate according to the procedures specified in 40 C.F.R. § 60.764 and submit an annual NMOC emission rate report to the Department and EPA. [40 C.F.R. §§ 60.762(b)(1)(i) & (ii)]

If the estimated NMOC emission rate as reported in the annual report is less than 34 megagrams per year in each of five consecutive years, WMDSM may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. WMDSM shall provide all data and calculations upon which this estimate is based. WMDSM shall revise this estimate at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year estimate, a revised five-year estimate must be submitted to the Department and EPA. The revised estimate must cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. [40 C.F.R. § 60.767(b)(1)(ii)]

If the NMOC emission rate exceeds 34 megagrams per year, within 60 days of the NMOC emission rate report submittal, WMDSM shall submit to the Department an application for a Part 70 Administrative Revision to address the new applicable requirements of 40 C.F.R. Part 60, Subpart XXX. [06-096 C.M.R. ch. 140, § 3(E)(7)(a)(vii)(d)]

Reports required by 40 C.F.R. Part 60, Subpart XXX must be submitted to EPA via their Compliance and Emissions Data Reporting Interface (CEDRI). WMDSM shall use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, WMDSM shall submit the report via mail. [40 C.F.R. § 60.672(i)(2)]

A copy of any report submitted to EPA shall be submitted to the Department.

4. Control Equipment

Since WMDSM's current calculated NMOC emissions are less than 34 megagrams per year, this facility is not required to install a collection and control system that complies with 40 C.F.R. Part 60, Subpart XXX. However, WMDSM has voluntarily installed a collection and control system that is designed to meet the criteria set forth in Subpart XXX. Operation and maintenance of the landfill gas collection and control system has been determined to be BPT.

This system consists of a gas collection system, two flares (Flares #1 and #3), and the LFGTE engines. The flares are designed to achieve 98% overall destruction of NMOCs and use a small amount of propane as a pilot light. WMDSM may use up to 20 passive wellhead flares, as necessary. The 20 wellhead flares each have a heat input less than 1.0 MMBtu/hr and are considered insignificant activities.

WMDSM also installed and operates a LFGTE plant which fires landfill gas. The destruction efficiency for NMOC of the LFGTE plant is equivalent to the destruction efficiency of the flares. Therefore, combustion of the landfill gas in the LFGTE plant is determined to be an equivalent strategy for control of NMOC to the flares.

The LFGTE plant is considered the primary combustion device in the control system and the flares are the backup or auxiliary combustion devices. The control devices may operate individually or simultaneously to combust the collected landfill gas.

5. Operational Flexibility

The landfill design capacity listed in this license reflects the estimated capacity of the landfill at the time of license issuance. It is not considered a license restriction, and WMDSM may expand beyond the currently permitted design capacity without an amendment to this Part 70 air emission license, provided all of the following are met.

- a. WMDSM submits to the Department an amended Design Capacity Report and a report identifying the recalculated NMOC emission rates for the next five years within 90 days after commencing construction on the permitted expansion;
 - b. The recalculated NMOC emission rates remain less than 34 megagrams per year; and
 - c. WMDSM continues to meet the emission limits set forth in this license.
- [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

6. Emission Limits and Streamlining

a. Criteria Pollutants

For Flares #1 and #3, a listing of applicable emission standards and the origin and authority of the standards can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Flare #1		
Pollutant	Applicable Emission Standards	Origin and Authority
PM	0.085 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
	5.10 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
PM ₁₀	5.10 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
SO ₂	29.41 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
NO _x	4.08 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
CO	22.20 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
VOC	0.31 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)

Flare #3		
Pollutant	Applicable Emission Standards	Origin and Authority
PM	0.085 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
	6.38 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
PM ₁₀	6.38 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
SO ₂	36.77 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
NO _x	5.10 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
CO	27.75 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)
VOC	0.39 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)

b. Visible Emissions

Flares #1 and #3 are subject to the following visible emission limit established under BACT:

Visible emissions from each flare shall not exceed an opacity of 20% on a six-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [A-816-77-1-A, 7/11/2008]

Flares #1 and #3 are subject to 06-096 C.M.R. ch. 101. Pursuant to this rule, the flares are subject to the following visible emissions standards:

Visible emissions from each flare shall not exceed 30% opacity on a six-minute block average basis, except that for periods of startup, shutdown, and malfunction WMDSM may elect to comply with the work practice standards listed in 06-096 C.M.R. ch. 101, § 4(A). [06-096 C.M.R. ch. 101, § 3(A)(6)]

With this license, the Department is establishing the following visible emissions standards through BPT:

Visible emissions from each flare shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

The Department has determined that the BPT visible emissions standards are more stringent than the applicable limits in 06-096 C.M.R. ch. 101 and the previously licensed BACT standard. Therefore, the visible emission limit has been streamlined to the more stringent BPT limit, and only this more stringent limit shall be included in the air emission license. Streamlining the BPT limits with the Federally-enforceable limits in 06-096 C.M.R. ch. 101 makes the BPT limit Federally-enforceable.

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a 5-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]

7. Emission Limit Compliance Methods

Compliance with the SO₂ lb/hr limits shall be based on sampling of the landfill gas on the schedule described earlier in this license using a test method approved by the Department. The sampling results, along with the associated gas flow rates, shall be used to estimate the monthly SO₂ emissions based on the assumption that TRS compounds are converted to SO₂ during combustion. Compliance with the SO₂ lb/hr shall be based on a 12-month rolling average.

8. Periodic Monitoring

WMDSM shall record data and maintain records for the following periodic monitoring values for the Solid Waste Landfill and Flares #1 and #3.

- a. Hours of operation for Flares #1 and #3 (each) on a monthly and calendar year basis; [06-096 C.M.R. ch. 137]
- b. Propane fuel use for Flares #1 and #3 (each) on a monthly and calendar year basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115 (A-816-77-3-M, 5/9/2014)]
- c. Amount of landfill gas sent to each flare on a monthly and 12-month rolling total basis; [06-069 C.M.R. ch. 115 (A-816-77-3-M, 5/9/2014)]
- d. TRS concentration of the landfill gas according to the established schedule; [06-096 C.M.R. ch. 115 (A-816-77-3-M, 5/9/2014)]
- e. Presence of flame (yes/no) at each flare measured continuously and recorded at least every 15 minutes when the flare is in operation; [06-096 C.M.R. ch. 140, BPT (A-816-70-A-I, 5/31/2005)] **Enforceable by State-only**
- f. Records of any maintenance activities performed (planned or unplanned) on the flares; [40 C.F.R. § 70.6(c)(1)] and
- g. Records necessary to calculate NMOC emissions according to the procedures specified in 40 C.F.R. § 60.764. [40 C.F.R. § 70.6(c)(1)]

9. Parameter Monitors

There are no Parameter Monitors required for the Solid Waste Landfill or flares.

G. Landfill Gas-to-Energy Engines

The LFGTE facility consists of two generator sets each consisting of an engine and an electrical generator. The engines (Engines #1 and #2) are each Caterpillar model G3520C four-stroke, lean-burn, spark ignition, reciprocating internal combustion engines fueled by landfill gas.

The engines are each rated at 17.9 MMBtu/hr firing landfill gas comprised of approximately 50% methane (CH₄). The flares may operate simultaneously with the engines if the collection rate exceeds the combustion capacity of the LFGTE facility or the LFGTE facility is not able to accept all of the gas produced (e.g., during maintenance operations at the LFGTE facility).

1. Control Equipment

WMDSM uses coalescing filters on Engines #1 and #2 for control of PM emissions.

2. Engine Replacement

Maintenance guidelines require the engines to be overhauled regularly to maintain engine performance and operation. WMDSM does this work off-site by removal of the engine and replacement with one from their inventory of the same make, model, and maximum heat input. Once rebuilt, the engine is returned to inventory off-site or used as subsequent replacement units on-site.

In NSR license A-816-77-4-A (12/14/2015), the replacement of either Engine #1 or #2 with engines of the same make, model, and maximum heat input was determined to not be a modification of emissions units requiring New Source Review permitting. However, the NSR license did address clarification of NSPS and NESHAP requirements and included the following additional notification, recordkeeping, and reporting requirements.

At least 15 calendar days prior to installation of any replacement engine, WMDSM shall provide written notification to the Department (both to the Licensing Section and Regional Inspector). This notification shall contain the following information:

- a. Emission unit number being replaced (i.e., Engine #1 or Engine #2);
- b. Make, model, serial number, date of manufacture, and maximum heat input of the replacement engine (i.e. the engine new to the site);
- c. Anticipated date installation will commence;
- d. A statement that the replacement engine will meet the definition of a “replacement unit” as defined by 40 C.F.R. § 51.165(a)(1)(xxi); and
- e. A statement stating whether the engine is subject to 40 C.F.R. Part 63, Subpart ZZZZ or 40 C.F.R. Part 60, Subpart JJJJ or both.

Within seven days of startup of the replacement engine, WMDSM shall provide written notification to the Department (both to the Licensing Section and Regional Inspector) of the date of engine startup.

At the time of this license issuance, the date of last engine replacement for both units was 2016 and neither engine was yet subject to 40 C.F.R. Part 60, Subpart JJJJ.

3. National Emission Standards for Hazardous Air Pollutants (NESHAP)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Engines #1 and #2.

At the time of this license issuance, both Engines #1 and #2 are considered existing stationary reciprocating internal combustion engines (RICE) located at an area source. They are both considered non-emergency, non-black start stationary RICE that combust landfill gas equivalent to more than 10% of their gross heat input on an annual basis. A summary of requirements is listed below.

However, if either engine is replaced with a unit manufactured after June 12, 2006, that unit shall be considered a new stationary RICE located at an area source. In such case, compliance with 40 C.F.R. Part 63, Subpart ZZZZ for that engine shall be met by complying with 40 C.F.R. Part 60, Subpart JJJJ, and the requirements listed below will not apply to that engine. [40 C.F.R. § 63.6590(c)]

a. Operating Requirements

(1) For each LFGTE engine for which these requirements are applicable, WMDSM shall:

- (i) Change the oil and filter every 1,440 hours of operation or annually, whichever comes first;
- (ii) Inspect the spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and
- (iii) Inspect all hoses and belts every 1,440 hours of operation or annual, whichever comes first, and replace as necessary.

[40 C.F.R. § 63.6603(a) and Table 2d, line 13]

(2) WMDSM shall operate and maintain the LFGTE engines according to the manufacturer's emission-related written instructions or develop a site-specific maintenance plan which must provide, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. [40 C.F.R. § 63.6625(e)]

b. Optional Oil Analysis Program

WMDSM has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(j) in order to extend the specified oil change requirement. If this option is used, WMDSM must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R. § 63.6225(j) and Table 2d line 13, footnote 1]

c. General Requirement to Minimize Emissions

At all times, the facility shall operate and maintain the LFGTE engines, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 C.F.R. § 63.6605(b)]

d. Startup Idle and Startup Time Minimization Requirements

During periods of startup, the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h)]

e. Recordkeeping

WMDSM shall keep records that include maintenance conducted on the LFGTE engines in order to demonstrate that they were operated and maintained in accordance with the facility's maintenance plan. [40 C.F.R. § 63.06655(e)]

4. New Source Performance Standards (NSPS)

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart JJJJ shall be applicable to Engine #1 or #2 if it was manufactured after January 1, 2007. By meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ, the internal combustion engine (ICE) also meets the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ.

Once an engine is replaced with a unit subject to 40 C.F.R. Part 60, Subpart JJJJ, any subsequent replacement engine shall also meet the requirements of Subpart JJJJ. [06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]

Any replacement LFGTE engine manufactured on or after July 1, 2007, or any engine originally installed on or after July 1, 2009, shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJJ. A summary of the requirements is provided below.

a. Emission Standards

The engine is subject to emission standards for non-emergency spark ignition landfill gas-fired engines greater than 1,350 Hp manufactured after July 1, 2007, or July 1, 2010, (as applicable) contained in 40 C.F.R. Part 63, Subpart JJJJ, Table 1 pursuant to 40 C.F.R. § 63.4233(e).

b. Maintenance Plan & Operating Requirements

WMDSM shall keep a maintenance plan and records of conducted maintenance. WMDSM shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 60.4243(b)(2)(ii)]

c. Compliance Demonstration

(1) If the engine was previously in service at another location, WMDSM may demonstrate compliance with the requirement to perform an initial performance

test by providing documentation to the Department of the previous testing which demonstrates that the engine meets the applicable emission standards.

Otherwise, WMDSM shall conduct initial performance test for NO_x, CO, and VOC in accordance with 40 C.F.R. § 60.4244 and Table 2 within 60 days after achieving maximum production, but no later than 180 days after initial startup [40 C.F.R. § 60.4243(b)(2) and 40 C.F.R. § 60.8(a)]

- (2) WMDSM shall conduct subsequent performance testing on the engine every 8,760 hours of operation or 3 years, whichever comes first.
[40 C.F.R. § 60.4243(b)(2)(ii)]

If the engine is non-operational, WMDSM does not need to start up the engine solely to conduct a performance test. However, WMDSM must conduct the performance test immediately upon startup of the engine.
[40 C.F.R. § 60.4244(b)]

- (3) WMDSM shall provide 30-days' notice of any performance test to both the Department and EPA. [40 C.F.R. § 60.8(d)]
- (4) Performance tests shall be conducted in accordance with 40 C.F.R. § 60.4244 including, but not limited to, the following:
- (i) Each performance test shall be conducted within 10% of 100% peak (or the highest achievable) load. [40 C.F.R. § 60.4244(a)]
 - (ii) When calculating emissions of VOC, emissions of formaldehyde shall not be included. [40 C.F.R. § 60.4244(f)]

d. Recordkeeping

WMDSM shall keep records of the following for each engine:

- (1) All notifications submitted to comply with this subpart;
 - (2) All maintenance conducted on the engine;
 - (3) Documentation that the engine meets the emission standards (e.g., copies of performance test reports or supplier certification).
- [40 C.F.R. § 60.4245(a)]

e. Notifications and Reporting

(1) WMDSM shall submit to the Department and EPA an initial notification as required by 40 C.F.R. § 60.7(a)(1) that includes the information listed in 40 C.F.R. §§ 60.4245(c)(1) through (5).

[40 C.F.R. § 60.4245(c) and 06-096 C.M.R. ch. 140, BPT]

(2) WMDSM shall submit a copy of each performance test report to the Department and EPA within 30 days after the test has been completed.

[40 C.F.R. § 60.4245(d) and 06-096 C.M.R. ch. 140, § 3(E)(7)(b)(viii)(c)]

5. Emission Limits and Streamlining

- a. For Engines #1 and #2 (each) and any subsequent replacement unit subject to 40 C.F.R. Part 63, Subpart ZZZZ, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.05 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	0.05 lb/MMBtu
	0.86 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	0.86 lb/hr
PM ₁₀	0.86 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	0.86 lb/hr
SO ₂	8.76 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	8.76 lb/hr
NO _x	0.6 g/bhp-hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	0.6 g/bhp-hr
	2.95 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	2.95 lb/hr
CO	4.2 g/bhp-hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	4.2 g/bhp-hr
	20.70 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	20.70 lb/hr
VOC	1.0 g/bhp-hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	1.0 g/bhp-hr

- b. For any replacement unit for Engines #1 and #2 subject to 40 C.F.R. Part 60, Subpart JJJJ, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.05 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	0.05 lb/MMBtu
	0.86 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	0.86 lb/hr
PM ₁₀	0.86 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	0.86 lb/hr
SO ₂	8.76 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	8.76 lb/hr
NO _x	3.0 g/bhp-hr (manufactured between 7/1/07 – 7/1/10)	40 C.F.R. Part 60, Subpart JJJJ § 60.4233(e) and Table 1	0.6 g/bhp-hr *
	2.0 g/bhp-hr (manufactured after 7/1/10)	40 C.F.R. Part 60, Subpart JJJJ § 60.4233(e) and Table 1	
	0.6 g/bhp-hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	
	2.95 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	2.95 lb/hr
CO	5.0 g/bhp-hr	40 C.F.R. Part 60, Subpart JJJJ § 60.4233(e) and Table 1	4.2 g/bhp-hr *
	4.2 g/bhp-hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	
	20.70 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	20.70 lb/hr
VOC	1.0 g/bhp-hr	40 C.F.R. Part 60, Subpart JJJJ § 60.4233(e) and Table 1	1.0 g/bhp-hr *
	1.0 g/bhp-hr	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	

c. Visible Emissions

Engines #1 and #2 are subject to the following visible emission limit established under BACT:

WMDSM shall operate the engines such that the visible emissions from each stack does not exceed 20% opacity on a six-minute block average basis, for more than two (2) six-minute block averages in a 3-hour period.
[A-816-77-4-A, 12/14/2015]

Engines #1 and #2 are subject to 06-096 C.M.R. ch. 101. Pursuant to this rule, the engines are subject to the following visible emissions standards:

Visible emissions from each engine shall not exceed 20% opacity on a six-minute block average basis, except for periods of startup during which time WMDSM may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]

- (1) Maintain a log (written or electronic) of the date, time, and duration of all engine startups.
- (2) Operate the engines in accordance with the manufacturer's emission-related operating instructions.
- (3) Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
- (4) Operate the engine, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

The Department has determined that the 06-096 C.M.R. ch. 101 visible emissions standards are more stringent than the applicable BACT standard. Therefore, the visible emission limit has been streamlined to the more stringent limit, and only this more stringent limit shall be included in the air emission license.

6. Emission Limit Compliance Methods

a. WMDSM shall do one of the following for each replacement engine:

- (1) Demonstrate compliance with the NO_x and CO g/bhp-hr emission limits and the PM lb/MMBtu emission limit by stack testing within 180 days of startup (for engines not subject to 40 C.F.R. Part 60, Subpart JJJJ); or
- (2) Conduct an initial performance test for NO_x, CO, and VOC in accordance with 40 C.F.R. § 60.4244 and Table 2 within 60 days after achieving maximum production, but no later than 180 days after initial startup [40 C.F.R. § 60.4243(b)]; or
- (3) Within 30 days of startup, provide documentation to the Department of previous testing which demonstrates that the engine meets the applicable emission standards.

b. Compliance with the other emission limits associated with Engines #1 and #2 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

7. Periodic Monitoring

WMDSM shall record data and maintain records for the following periodic monitoring values for Engines #1 and #2 and its associated air pollution control equipment whenever the equipment is operating.

- a. Hours of operation for each LFGTE engine on a monthly and calendar year basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]
- b. Total combined landfill gas fired in the LFGTE engines on a monthly and calendar year basis; and [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]
- c. Records of all maintenance conducted on each engine (including coalescing filters). [40 C.F.R. § 60.4245(a)(2) and 06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]

8. Parameter Monitors

There are no Parameter Monitors required for Engine #1 or #2.

9. CEMS and COMS

There are no continuous emission monitoring systems (CEMS) or continuous opacity monitoring systems (COMS) required for Engines #1 or #2.

H. Emergency Generators

WMDSM operates two emergency generators (Generators #1 and #2). The emergency generators are generator sets, with each gen set consisting of an engine and an electrical generator. The emergency generators have engines rated at 0.9 MMBtu/hr and 0.7 MMBtu/hr which fire distillate fuel. Both emergency generators were manufactured in 2002.

1. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Generators #1 and #2. The units are considered existing, emergency stationary reciprocating internal combustion engines (RICE) at an area HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

a. Emergency Engine Designation and Operating Criteria

Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);

- Use of an engine to mitigate an on-site disaster or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.
- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Generators #1 and #2 shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all applicable requirements for non-emergency engines.

b. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements

For Generators #1 and #2 (each), WMDSM shall:

- (i) Change the oil and filter every 500 hours of operation or annually, whichever comes first;
- (ii) Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 C.F.R. § 63.6603(a) and Table 2d, line 4]

Generators #1 and #2 shall each be operated and maintained according to the manufacturer's emission-related written instructions, or WMDSM shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions.

[40 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program

WMDSM has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, WMDSM must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R. § 63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine.

[40 C.F.R. § 63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

[40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(5) Annual Time Limit for Maintenance and Testing

As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping

WMDSM shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

2. New Source Performance Standards (NSPS)

Due to the dates of manufacture for Generators #1 and #2, the engines are not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, 40 C.F.R. Part 60, Subpart III since the units were manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

3. Emission Limits and Streamlining

a. Criteria Pollutants

For Generators #1 and #2, a listing of applicable emission standards and the origin and authority of the standards can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Generators #1 and #2 were considered insignificant activities at the time they were originally installed. Therefore, all of the short-term limits listed below are considered Enforceable by State-only.

Generator #1		
Pollutant	Applicable Emission Standards	Origin and Authority
PM	0.28 lb/hr	06-096 C.M.R. ch. 140, BPT (A-816-70-C-R/A, 7/18/2014)
PM ₁₀	0.28 lb/hr	
SO ₂	0.01 lb/hr	
NO _x	3.97 lb/hr	
CO	0.86 lb/hr	
VOC	0.32 lb/hr	

Generator #2		
Pollutant	Applicable Emission Standards	Origin and Authority
PM	0.22 lb/hr	06-096 C.M.R. ch. 140, BPT (A-816-70-C-R/A, 7/18/2014)
PM ₁₀	0.22 lb/hr	
SO ₂	0.01 lb/hr	
NO _x	3.09 lb/hr	
CO	0.67 lb/hr	
VOC	0.25 lb/hr	

b. Visible Emissions

Generators #1 and #2 are subject to the following visible emission limit established under BPT:

Visible emissions from each of the generators shall not exceed 20% opacity on a six-minute block average, except for no more than two (2) six-minute block averages in a 3-hour period.

[06-096 C.M.R. ch. 140, BPT (A-816-70-C-R/A, 7/18/2014)]

Generators #1 and #2 are subject to 06-096 C.M.R. ch. 101. Pursuant to this rule, the generators are subject to the following visible emissions standards:

Visible emissions from Generators #1 and #2 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time WMDSM may comply with the following work practice standards in lieu of the numerical visible emissions standard.

[06-096 C.M.R. ch. 101, § 3(A)(4)]

- (1) Maintain a log (written or electronic) of the date, time, and duration of all generator startups.

- (2) Operate the generators in accordance with the manufacturer's emission-related operating instructions.
- (3) Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
- (4) Operate the generators, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

The Department has determined that the 06-096 C.M.R. ch. 101 visible emissions standards are more stringent than the applicable BPT standard. Therefore, the visible emission limit has been streamlined to the more stringent limit, and only this more stringent limit shall be included in the air emission license.

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with Generators #1 and #2 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

5. Periodic Monitoring

WMDSM shall record data and maintain records for the following periodic monitoring values for Generators #1 and #2 and whenever the equipment is operating.

- a. Hours of operating time on a calendar year basis; [06-096 C.M.R. ch. 137]
- b. Sulfur content of the distillate fuel fired; [06-096 C.M.R. ch. 137]
- c. Log of the duration and reasons for all operating times as they occur; and [40 C.F.R. § 63.6655(f)]
- d. Records of all maintenance conducted. [40 C.F.R. § 63.6655(e)]

6. Parameter Monitors

There are no Parameter Monitors required for Generators #1 and #2.

7. CEMS and COMS

There are no CEMS or COMS required for Generators #1 and #2.

I. Portable Engines

WMDSM may operate portable engines on-site for maintenance and emergency-only purposes. Depending on their size and age, these engines may be subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 and *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103.

Any engine which cannot meet the definition of “portable engine” as defined by this license may be subject to additional State and Federal regulations. A license amendment may be necessary for a portable engine to be reclassified as stationary.

J. Facility-Wide Emission Limits

Facility-wide annual emission limits have been established for WMDSM. These annual emission limits do not reflect operation of all equipment at full capacity. Instead they reflect the maximum anticipated emissions associated with full operation of the engines with excess gas burned at the flares. The annual limits are required to be a license condition, because otherwise there are no physical restrictions or other license restrictions that would prevent the facility from potentially exceeding these thresholds.

Annual emission limits for each pollutant were established in NSR license A-816-77-6-M (2/19/2019). However, with the removal of Emergency Generator #3, the calculated emissions for NO_x and CO are slightly less. Annual emission limits have been streamlined to the lower number.

Therefore, WMDSM shall not exceed the following emission limits on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019) and 06-096 C.M.R. ch. 140, BPT]

Pollutant	Ton/year
PM	12.7
PM ₁₀	12.7
SO ₂	226.4
NO _x	47.1
CO	294.1
VOC	39.9

Compliance shall be demonstrated by calculating actual emissions at least once annually as required by *Emission Statements*, 06-096 C.M.R. ch. 137. WMDSM shall also calculate annual emissions for any consecutive 12-month period upon request by the Department.

WMDSM is also subject to facility-wide annual emission limits for HAP. WMDSM shall not exceed an emission limit of 9.9 tpy for any individual HAP and 24.9 tpy for all HAP combined based on a 12-month rolling total. HAP emissions shall be calculated based on site-specific test data, EPA's AP-42 *Compilation of Air Pollution Emission Factors* for landfill gas emissions, other industry accepted factors, or EPA published factors as approved by the Department, the monthly totalized volume of landfill gas extracted, and the destruction efficiency of the control unit.

[06-096 C.M.R. ch. 115, BACT (A-816-77-1-A, 7/11/2008)]

Compliance shall be demonstrated by calculating actual HAP emissions at least once annually. WMDSM shall also calculate annual emissions for any consecutive 12-month period upon request by the Department.

K. Performance Test Protocol

For any performance testing required by this license, WMDSM shall submit to the Department for approval a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 115, BPT]

The Department's Performance Testing Guidance is available online at:
<https://www.maine.gov/dep/air/emissions/testing.html>

L. Emission Statements

WMDSM is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. WMDSM shall maintain records sufficient to complete and submit the annual emissions statement as required by this rule.

In reporting year 2023 and every third year thereafter, WMDSM shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. WMDSM shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

M. Facility Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility’s annual air license fee. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included.

The totals listed do not reflect operation of all equipment at full capacity. Instead they reflect maximum anticipated emissions associated with full operation of the engines with excess gas burned at the flares. WMDSM is restricted to the total emissions listed below based on a Federally-enforceable license condition.

Please note, this information provides the basis for fee calculation only and should not be construed to represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility
Tons/year
 (used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Flare #1	1.3	1.3	37.4	5.2	28.2	–
Flare #3	3.9	3.9	112.3	15.6	84.8	–
LFGTE Engines #1 & #2	7.5	7.5	76.7	25.9	181.1	–
Emerg. Gen. #1	–	–	–	0.2	–	–
Emerg. Gen #2	–	–	–	0.2	–	–
Facility-Wide	–	–	–	–	–	39.9
Total TPY	12.7	12.7	226.4	47.1	294.1	39.9

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

WMDSM previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-816-77-1-A issued on 7/11/08). An additional ambient air quality analysis is not required for this Part 70 license.

**Waste Management Disposal
Services of Maine, Inc.
d/b/a Crossroads Landfill
Somerset County
Norridgewock, Maine
A-816-70-H-R**

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**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal**

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards; and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-816-70-H-R pursuant to 06-096 C.M.R. ch. 140 and the preconstruction permitting requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to WMDSM pursuant to the Department's preconstruction permitting requirements have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact accompanying this Order. As such, the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each standard and specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

- (1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 140]

- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 C.M.R. ch. 140]
- (4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 140]
- (5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 140]
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
 - A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in the renewal application.

Permit Shield Table

Source	Citation	Description	Basis for Determination
Flares	06-096 C.M.R. ch. 102	Open Burning	These units are not considered open burning with the prohibitions of 06-096 C.M.R. ch. 102.
Flares & LFGTE Engines	06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard	LFG is not a covered fuel under Chapter 103.
Generators #1 and #2	06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard	Both generators are less than 3.0 MMBtu/hr.
Flares	06-096 C.M.R. ch. 104	Incinerator Particulate Emission Standard	Landfill flares are not considered incinerators.
Facility	06-096 C.M.R. ch. 105	General Process Source Particulate Emission Standard	No sources of PM at the facility are considered general process sources.
Facility	06-096 C.M.R. ch. 134	VOC RACT	Source's potential to emit for VOC is less than 40 tpy.
Facility	06-096 C.M.R. ch. 138	NO _x RACT	Source's potential to emit for NO _x is less than 100 tpy.
LFGTE Engines	06-096 C.M.R. ch. 148	Emissions from Smaller-Scale Electric Generating Resources	These engines were subject to NSR requirements.
Generators #1 and #2	06-096 C.M.R. ch. 148	Emissions from Smaller-Scale Electric Generating Resources	The generators are subject to 40 C.F.R. Part 63, Subpart ZZZZ.
Solid Waste Landfill	40 C.F.R. Part 60, Subpart WWW	Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014	WMDSM commenced construction on a design capacity increase on June 30, 2019.
Generators #1 and #2	40 C.F.R. Part 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Both generators were manufactured prior to April 1, 2006.
Facility	40 C.F.R. Part 63, Subpart AAAA	National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills	Emissions of NMOC are less than 50 Mg/year.

[06-096 C.M.R. ch. 140]

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
- A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However,

- no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 C.M.R. ch. 140;
- B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
 - C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
 - D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.
[06-096 C.M.R. ch. 140]

- (8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 C.M.R. ch. 140]

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 C.M.R. ch. 140. [06-096 C.M.R. ch. 140]
- (3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 140]
Enforceable by State-only

- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S. § 353-A.
- (5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 140]
Enforceable by State-only
- (6) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. In addition, the licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 C.M.R. ch. 140]
- (7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 C.M.R. ch. 140]
- (8) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
 - A. Perform stack testing under circumstances representative of the facility's normal process and operating conditions:
 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring, or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;
 2. To demonstrate compliance with the applicable emission standards; or
 3. Pursuant to any other requirement of this license to perform stack testing.

- B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 C.M.R. ch. 140] **Enforceable by State-only**
- (9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
 - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 C.M.R. ch. 140] **Enforceable by State-only**
- (10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.
- A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

- B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design, or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

- C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 C.M.R. ch. 140]

- (11) Upon the written request of the Department, the licensee shall establish and maintain such records; make such reports; install, use, and maintain such monitoring equipment; sample such emissions in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe; and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 140]
- (12) The licensee shall submit semiannual reports of any required periodic monitoring by January 31 and July 31 of each year, or on an equivalent schedule specified in the license. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 C.M.R. ch. 140]
- (13) The licensee shall submit a compliance certification to the Department and EPA annually by January 31 of each year, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
- A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
 - B. The compliance status;
 - C. Whether compliance was continuous or intermittent;
 - D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and

E. Such other facts as the Department may require to determine the compliance status of the source.

[06-096 C.M.R. ch. 140]

SPECIFIC CONDITIONS

(14) Solid Waste Landfill

A. WMDSM is subject to the requirements of *Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014*, 40 C.F.R. Part 60, Subpart XXX that apply to landfills with a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters and NMOC emissions less than 34 megagrams/year. [40 C.F.R. Part 60, Subpart XXX]

B. NMOC Emission Rate Report

1. Except as described below, WMDSM shall recalculate the annual NMOC emission rate according to the procedures specified in 40 C.F.R. § 60.764 and submit an annual NMOC emission rate report to the Department and EPA.
[40 C.F.R. §§ 60.762(b)(1)(i) & (ii)]
2. If the estimated NMOC emission rate as reported in the annual report is less than 34 megagrams per year in each of five consecutive years, WMDSM may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report.
 - a. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated.
 - b. WMDSM shall provide all data and calculations upon which this estimate is based.
 - c. WMDSM shall revise this estimate at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year estimate, a revised five-year estimate must be submitted to the Department and EPA.
 - d. The revised estimate must cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

[40 C.F.R. § 60.767(b)(1)(ii)]

3. If the NMOC emission rate exceeds 34 megagrams per year, within 60 days of the NMOC emission rate report submittal, WMDSM shall submit to the Department an application for a Part 70 Administrative Revision to address the new applicable requirements of 40 C.F.R. Part 60, Subpart XXX.
[06-096 C.M.R. ch. 140, § 3(E)(7)(a)(vii)(d)]
4. If the NMOC emission rate exceeds 50 megagrams per year, within 60 days of the NMOC emission rate report submittal, WMDSM shall submit to the Department an application for a Part 70 Administrative Revision to address the applicable requirements of 40 C.F.R. Part 63, Subpart AAAA.
[06-096 C.M.R. ch. 140, § 3(E)(7)(a)(vii)(d)]

C. Report Submittal

1. Reports required by 40 C.F.R. Part 60, Subpart XXX must be submitted to EPA via their Compliance and Emissions Data Reporting Interface (CEDRI). WMDSM shall use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, WMDSM shall submit the report via mail. [40 C.F.R. § 60.672(i)(2)]
2. A copy of any report submitted to EPA shall be submitted to the Department.
[06-096 C.M.R. ch. 140] **Enforceable by State-only**

D. WMDSM shall operate and maintain a landfill gas collection and control system except for periods of construction, maintenance, or malfunctions on the system.
[06-096 C.M.R. ch. 115, BACT (A-816-77-1-A, 7/11/2008)]

E. WMDSM shall operate each flare within the equipment parameter boundaries established in 40 C.F.R. § 60.18. [06-096 C.M.R. ch. 115, BACT (A-816-77-1-A, 7/11/2008)]

F. Flare Emission Limits

(Emission limits are on a 1-hour block average basis unless otherwise stated.)

1. Emissions from Flares #1 and #3 shall each not exceed the following limit:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.085	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable

2. Emissions from Flares #1 and #3 shall not exceed the following limits:
[06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)]

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Flare #1	5.10	5.10	29.41	4.08	22.20	0.31
Flare #3	6.38	6.38	36.77	5.10	27.75	0.39

- G. Visible emissions from each flare (Flare #1 and #3) shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 140, BPT]
- H. Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a 5-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]
- I. WMDSM may expand beyond the currently permitted design capacity without an amendment to this Part 70 air emission license, provided all of the following are met.
1. WMDSM submits to the Department an amended Design Capacity Report and a report identifying the recalculated NMOC emission rates for the next five years within 90 days after commencing construction on the permitted expansion;
 2. The recalculated NMOC emission rates remain less than 34 megagrams per year; and
 3. WMDSM continues to meet the emission limits set forth in this license.
[06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**
- J. TRS Sampling

WMDSM shall sample for TRS as described below starting with the frequency already established at the time of this license issuance.

1. WMDSM shall sample landfill gas at the engine plant or flare inlet for TRS utilizing ASTM Method D5504, EPA Modified Method 16, or another method approved by the Department. [06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]
2. WMDSM shall sample the TRS concentration of the landfill gas monthly. The frequency of TRS sampling shall be reduced to once quarterly if the results of the monthly sampling are less than 1,000 ppm for 12 consecutive monthly monitoring events, and to once annually if the results of quarterly sampling are less than 500 ppm for four (4) consecutive quarterly monitoring events.
[06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]

3. If the frequency of sampling the landfill gas for TRS is reduced to annually and the results of two (2) consecutive sampling events exceed 500 ppm, WMDSM shall increase the sampling frequency to quarterly. If the frequency of sampling the landfill gas for TRS is reduced to less than monthly (quarterly or annually) and the results of two (2) consecutive sampling events exceeds 1,000 ppm, WMDSM shall increase the sampling frequency to monthly. [06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]
 4. If the frequency of sampling the landfill gas for TRS is increased, it may be subsequently decreased according to the schedule established above. [06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]
- K. If the average of TRS in the landfill gas exceeds 1,250 ppm at 50% methane during two (2) consecutive monitoring events, WMDSM shall reassess BACT for SO₂ emissions from the landfill and submit the revised BACT analysis to the Department within 90 days. [06-096 CMR 115, BACT (A-816-77-4-A, 12/14/2015)]
- L. Periodic Monitoring

WMDSM shall record data and maintain records for the following periodic monitoring values for the Solid Waste Landfill and Flares #1 and #3.

1. Hours of operation for Flares #1 and #3 (each) on a monthly and calendar year basis; [06-096 C.M.R. ch. 137]
2. Propane fuel use for Flares #1 and #3 (each) on a monthly and calendar year basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115 (A-816-77-3-M, 5/9/2014)]
3. Amount of landfill gas sent to each flare on a monthly and 12-month rolling total basis; [06-069 C.M.R. ch. 115 (A-816-77-3-M, 5/9/2014)]
4. TRS concentration of the landfill gas according to the established schedule; [06-096 C.M.R. ch. 115 (A-816-77-3-M, 5/9/2014)]
5. Presence of flame (yes/no) at each flare measured continuously and recorded at least every 15 minutes when the flare is in operation; [06-096 C.M.R. ch. 140, BPT (A-816-70-A-I, 5/31/2005)] **Enforceable by State-only**
6. Records of any maintenance activities performed (planned or unplanned) on the flares; [40 C.F.R. § 70.6(c)(1)] and
7. Records necessary to calculate NMOC emissions according to the procedures specified in 40 C.F.R. § 60.764. [40 C.F.R. § 70.6(c)(1)]

(15) **LFGTE Engines #1 and #2**

- A. WMDSM shall fire only landfill gas, natural gas, or propane in Engines #1 and #2. [06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]
- B. At least 15 calendar days prior to installation of any replacement engine, WMDSM shall provide written notification to the Department (both to the Licensing Section and Regional Inspector). This notification shall contain the following information:
 - 1. Emission unit number being replaced (i.e., Engine #1 or Engine #2);
 - 2. Make, model, serial number, date of manufacture, and maximum heat input of the replacement engine (i.e., the engine new to the site);
 - 3. Anticipated date installation will commence;
 - 4. A statement that the replacement engine will meet the definition of a “replacement unit” as defined by 40 C.F.R. § 51.165(a)(1)(xxi);
 - 5. A statement stating whether the engine is subject to 40 C.F.R. Part 63, Subpart ZZZZ or 40 C.F.R. Part 60, Subpart JJJJ or both.
 [06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]
- C. Within seven days of startup of the replacement engine, WMDSM shall provide written notification to the Department (both to the Licensing Section and Regional Inspector) of the date of engine startup. [06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]
- D. Emissions from Engines #1 and #2 (and any subsequent replacement unit subject to 40 C.F.R. Part 63, Subpart ZZZZ) shall each not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.05	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable

Pollutant	g/bhp-hr	Origin and Authority	Enforceability
NO _x	0.6	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
CO	4.2	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
VOC	1.0	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.86	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
PM ₁₀	0.86	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
SO ₂	8.76	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
NO _x	2.95	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
CO	20.70	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable

E. Emissions from any replacement unit for Engines #1 and #2 manufactured after July 1, 2007 shall each not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.05	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable

Pollutant	g/bhp-hr	Origin and Authority	Enforceability
NO _x	0.6	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
CO	4.2	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
VOC	1.0	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.86	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
PM ₁₀	0.86	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
SO ₂	8.76	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
NO _x	2.95	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable
CO	20.70	06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019)	Federally Enforceable

F. Visible Emissions

Visible emissions from each engine shall not exceed 20% opacity on a six-minute block average basis, except for periods of startup during which time WMDSM may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]

1. Maintain a log (written or electronic) of the date, time, and duration of all engine startups.
2. Operate the engines in accordance with the manufacturer's emission-related operating instructions.
3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
4. Operate the engine, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

G. Compliance Methods

1. WMDSM shall do one of the following for each replacement engine:
 - a. Demonstrate compliance with the NO_x and CO g/bhp-hr emission limits and the PM lb/MMBtu emission limit by stack testing within 180 days of startup (for engines not subject to 40 C.F.R. Part 60, Subpart JJJJ); or
 - b. Conduct an initial performance test for NO_x, CO, and VOC in accordance with 40 C.F.R. § 60.4244 and Table 2 within 60 days after achieving maximum production, but no later than 180 days after initial startup; [40 C.F.R. § 60.4243(b)] or
 - c. Within 30 days of startup, provide documentation to the Department of previous testing which demonstrates that the engine meets the applicable emission standards.

[06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]

2. Compliance with the other emission limits associated with Engines #1 and #2 shall be demonstrated in accordance with the appropriate test methods upon request of the Department. [06-096 C.M.R. ch. 140]
- H. WMDSM shall operate and maintain the coalescing filters on the landfill gas-fired engines in good working order. [06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]
- I. The current Engines #1 and #2, and any subsequent replacement engine originally installed prior to June 12, 2006, shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ including the following:
1. Operating Requirements
 - a. For each LFGTE engine for which these requirements are applicable, WMDSM shall:
 - (1) Change the oil and filter every 1,440 hours of operation or annually, whichever comes first;
 - (2) Inspect the spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and
 - (3) Inspect all hoses and belts every 1,440 hours of operation or annual, whichever comes first, and replace as necessary.
[40 C.F.R. § 63.6603(a) and Table 2d, line 13]
 - b. WMDSM shall operate and maintain the LFGTE engines according to the manufacturer's emission-related written instructions or develop a site-specific maintenance plan which must provide, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. [40 C.F.R. § 63.6625(e)]
 2. Optional Oil Analysis Program

WMDSM has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(j) in order to extend the specified oil change requirement. If this option is used, WMDSM must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R. § 63.6225(j) and Table 2d line 13, footnote 1]

3. General Requirement to Minimize Emissions

At all times the facility shall operate and maintain the LFGTE engines, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 C.F.R. § 63.6605(b)]

4. Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h)]

5. Recordkeeping

WMDSM shall keep records that include maintenance conducted on the LFGTE engines in order to demonstrate that they were operated and maintained in accordance with the facility's maintenance plan. [40 C.F.R. § 63.06655(e)]

J. Once an engine is replaced with a unit subject to 40 C.F.R. Part 60, Subpart JJJJ, any subsequent replacement engine shall also meet the requirements of Subpart JJJJ. [06-096 C.M.R. ch. 115, BACT (A-816-77-4-A, 12/14/2015)]

K. Any replacement LFGTE engine manufactured on or after July 1, 2007 or any engine originally installed on or after July 1, 2009 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJJ, including the following:

1. Maintenance Plan & Operating Requirements

WMDSM shall keep a maintenance plan and records of conducted maintenance. WMDSM shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 60.4243(b)(2)(ii)]

2. Compliance Demonstration

a. After the initial performance test addressed earlier in this license, WMDSM shall conduct subsequent performance testing on the engine every 8,760 hours of operation or 3 years, whichever comes first. [40 C.F.R. § 60.4243(b)(2)(ii)]

If the engine is non-operational, WMDSM does not need to start up the engine

solely to conduct a performance test. However, WMDSM must conduct the performance test immediately upon startup of the engine.
[40 C.F.R. § 60.4244(b)]

- b. WMDSM shall provide 30-days' notice of any performance test to both the Department and EPA. [40 C.F.R. § 60.8(d)]
- c. Performance tests shall be conducted in accordance with 40 C.F.R. § 60.4244 including, but not limited to, the following:
 - (1) Each performance test shall be conducted within 10% of 100% peak (or the highest achievable) load. [40 C.F.R. § 60.4244(a)]
 - (2) When calculating emissions of VOC, emissions of formaldehyde shall not be included. [40 C.F.R. § 60.4244(f)]

3. Recordkeeping

WMDSM shall keep records of the following for each engine:

- a. All notifications submitted to comply with this subpart;
- b. All maintenance conducted on the engine;
- c. Documentation that the engine meets the emission standards (e.g., copies of performance test reports or supplier certification).
[40 C.F.R. § 60.4245(a)]

4. Notifications and Reporting

- a. WMDSM shall submit to the Department and EPA an initial notification as required by 40 C.F.R. § 60.7(a)(1) that includes the information listed in 40 C.F.R. §§ 60.4245(c)(1) through (5). [40 C.F.R. § 60.4245(c) and 06-096 C.M.R. ch. 140, BPT]
- b. WMDSM shall submit a copy of each performance test report to the Department and EPA within 30 days after the test has been completed.
[40 C.F.R. § 60.4245(d) and 06-096 C.M.R. ch. 140, § 3(E)(7)(b)(viii)(c)]

L. Periodic Monitoring

WMDSM shall record data and maintain records for the following periodic monitoring values for Engines #1 and #2 and its associated air pollution control equipment whenever the equipment is operating.

- a. Hours of operation for each LFGTE engine on a monthly and calendar year basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]
- b. Total combined landfill gas fired in the LFGTE engines on a monthly and calendar year basis; and [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]
- c. Records of all maintenance conducted on each engine (including coalescing filters). [40 C.F.R. § 60.4245(a)(2) and 06-096 C.M.R. ch. 115, BACT (A-816-77-3-M, 5/9/2014)]

(16) **Generators #1 and #2**

- A. Emissions shall not exceed the following limits:
[06-096 C.M.R. ch. 140, BPT (A-816-70-C-R/A, 7/18/2014)]
Enforceable by State-only

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.28	0.28	0.01	3.97	0.86	0.32
Generator #2	0.22	0.22	0.01	3.09	0.67	0.25

B. Visible Emissions

Visible emissions from Generators #1 and #2 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time WMDSM may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]

1. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
2. Operate the generators in accordance with the manufacturer's emission-related operating instructions.
3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not

to exceed 30 minutes, after which time the non-startup emission limitations shall apply.

4. Operate the generators, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.
- C. Generators #1 and #2 shall each meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following:
1. WMDSM shall meet the following operational limitations for Generators #1 and #2 (each):
 - a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
 - b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

[40 C.F.R. § 63.6603(a) and Table 2(d); and 06-096 C.M.R. ch. 140, BPT]

2. Oil Analysis Program Option
WMDSM has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, WMDSM must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R. § 63.6625(i)]
3. Non-Resettable Hour Meter
A non-resettable hour meter shall be installed and operated on each engine.
[40 C.F.R. § 63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations

- a. The engines shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]
- b. WMDSM shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]

5. Operation and Maintenance

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or WMDSM shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

6. Startup Idle and Startup Time Minimization

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

D. Periodic Monitoring

WMDSM shall record data and maintain records for the following periodic monitoring values for Generators #1 and #2 and whenever the equipment is operating.

1. Hours of operating time on a calendar year basis; [06-096 C.M.R. ch. 137]
2. Sulfur content of the distillate fuel fired; [06-096 C.M.R. ch. 137]
3. Log of the duration and reasons for all operating times as they occur; and [40 C.F.R. § 63.6655(f)]
4. Records of all maintenance conducted. [40 C.F.R. § 63.6655(e)]

(17) **Facility Wide Emission Limits**

- A. WMDSM shall not exceed the following emission limits on a 12-month rolling total basis [06-096 C.M.R. ch. 115, BACT (A-816-77-6-M, 2/19/2019) and 06-096 C.M.R. ch. 140, BPT]:

Pollutant	Ton/year
PM	12.7
PM ₁₀	12.7
SO ₂	226.4
NO _x	47.1
CO	294.1
VOC	39.9

Compliance shall be demonstrated by calculating actual emissions at least once annually as required by *Emission Statements*, 06-096 C.M.R. ch. 137. WMDSM shall also calculate annual emissions for any consecutive 12-month period upon request by the Department.

When calculating annual emissions from Engines #1 and #2 to demonstrate compliance with the VOC tpy emission limit, WMDSM shall use one of the following emission rates:

1. The emission rate from the most recent compliance stack test;
2. The worst-case emission factor listed on the manufacturer's technical data sheet for the specific engine; or
3. 1.0 g/hp-hr.

[06-096 C.M.R. ch. 115, BACT (A-816-77-5-A, 12/9/2016)]

- B. WMDSM shall not exceed an emission limit of 9.9 tpy for any individual HAP and 24.9 tpy for all HAP combined based on a 12-month rolling total.
[06-096 C.M.R. ch. 115, BACT (A-816-77-1-A, 7/11/2008)]

Compliance shall be demonstrated by calculating actual HAP emissions at least once annually. WMDSM shall also calculate annual emissions for any consecutive 12-month period upon request by the Department

Emissions of HAP shall be calculated based on site-specific test data, EPA's AP-42 *Compilation of Air Pollution Emission Factors* for landfill gas emissions, other industry accepted factors, or EPA published factors as approved by the Department, the monthly totalized volume of landfill gas extracted, and the destruction efficiency of the control unit.

(18) **Performance Test Protocol**

For any performance testing required by this license, WMDSM shall submit to the Department for approval a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

(19) **Semiannual Reporting** [06-096 C.M.R. ch. 140]

Note: This semiannual report is separate from, and in addition to, any semiannual report required by specific NSPS or NESHAP regulations.

- A. The licensee shall submit to the Department semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
- B. The semiannual report shall be considered on-time if the postmark of the submittal is on or before the due date or if the report is received by the Department within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the periodic monitoring required by this license.
- D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(20) **Annual Compliance Certification**

WMDSM shall submit an annual compliance certification to the Department and EPA in accordance with Standard Condition (13) of this license. The annual compliance certification is due **January 31st** of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is on or before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 C.M.R. ch. 140]

(21) **Annual Emission Statements**

- A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, WMDSM shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.
- B. WMDSM shall maintain records sufficient to complete and submit the annual emissions statement as required by this rule
- C. In reporting year 2023 and every third year thereafter, WMDSM shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). WMDSM shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

(22) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 C.M.R. ch. 102	Open Burning	-
06-096 C.M.R. ch. 109	Emergency Episode Regulation	-
06-096 C.M.R. ch. 110	Ambient Air Quality Standard	-
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques	-
38 M.R.S. § 585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(23) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 C.F.R. Part 82, Subpart F]

(24) **Asbestos Abatement**

When undertaking Asbestos abatement activities, Facility shall comply with the *Standard for Asbestos Demolition and Renovation*, 40 C.F.R. Part 61, Subpart M.

Waste Management Disposal
Services of Maine, Inc.
d/b/a Crossroads Landfill
Somerset County
Norridgewock, Maine
A-816-70-H-R

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Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal

(25) **Expiration of a Part 70 license**

- A. WMDSM shall submit a complete Part 70 renewal application at least six but no more than 18 months prior to the expiration of this air license.
- B. Pursuant to Title 5 M.R.S. §10002, and 06-096 C.M.R. ch. 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 C.M.R. ch. 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(26) **New Source Review**

WMDSM is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emission License, A-816-70-H-R, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 2nd DAY OF MAY, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted at least six but no more than 18 months prior to expiration of the facility's Part 70 license, then pursuant to Title 5 M.R.S. §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 1/7/2019

Date of application acceptance: 1/7/2019

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

