



DEPARTMENT ORDER

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

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1**

FINDINGS OF FACT

After review of the Part 70 License amendment 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 Minor Modification
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.

New Source Review (NSR) license A-816-77-7-A (NSR #7), issued 11/30/2023, addressed the installation of a new biosolids processing facility, including a new emergency generator (Generator #3). WMDSM has requested that the provisions of this NSR license be incorporated into their Part 70 license. The Department will also address any additional applicable requirements associated with the new biosolids processing facility and Generator #3.

The Department is also taking the opportunity to update the applicable visible emission standards based on recent changes to *Visible Emissions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 101.

B. Stationary Source Description

Maine Regional Conversion Facility, LLC (MRCF) will own and operate the biosolids processing facility on leased property that is part of the Crossroads Landfill facility. Both MRCF and WMDSM are subsidiaries of Waste Management Holding, Inc. and thus are under common control. Because MRCF and WMDSM are considered under common control, are part of the same industrial grouping, and are to be located on contiguous property, the biosolids processing facility is considered part of WMDSM's stationary source.

C. Emission Equipment

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

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Stack #
Biosolids Processing Facility	200 wet tons/day*	none	building vents

* Approximate, does not represent a license limit.

Emergency Generators

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Output Capacity (kW)	Max. Firing Rate	Fuel Type	Mfr. Date
Generator #3	2.0	144*	1,968 cfh	natural gas	2023
			708 cfh	propane	

* This number represents the maximum electrical output of the generator. The maximum output of the engine is 169 kW when firing propane and 193 kW when firing natural gas.

D. Definitions

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.

A Part 70 Minor License Modification is for a license change that meets the following criteria:

- Does not violate any Applicable requirement;
- Does not involve a significant change to existing monitoring, reporting, or recordkeeping requirements in the license;
- Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impact or a visibility or increment analysis;
- Does not seek to establish or change a Part 70 license term or condition for which there is no corresponding underlying Applicable requirement, and that the source has assumed to avoid an Applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a Title I modification or a modification or reconstruction under any provision of Section 111, or 112 of the Clean Air Act (CAA); and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the CAA;
- Is not a Title I modification or a modification or reconstruction under any provision of Section 111 or 112 of the CAA; and
- Is not required by the Department to be processed under Part 70 Significant License Modification procedures.

WMDSM has requested incorporation into the Part 70 Air License the relevant terms and conditions of NSR #7 (11/30/2023) issued to the facility pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115.

The incorporation of minor modification NSR licenses and other applicable requirements into a Part 70 license is not considered a Part 70 Significant License Modification provided the minor modification NSR license involved only new equipment or the addition of new requirements (i.e. does not modify previously existing requirements). This request is not a Part 70 Significant License Modification.

The Department also addresses in this license amendment new applicable requirements due to recent changes to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101.

Neither of these changes is a Title I modification. The facility is not proposing substantial changes to existing monitoring and testing requirements, nor is it proposing the relaxation of existing license conditions.

Therefore, the facility's request to incorporate NSR requirements is classified as a Part 70 Minor License Modification and has been processed under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

F. Project Description

WMDSM licensed the installation of a biosolids processing facility to meet the demand for sludge (a.k.a. biosolids) disposal from municipal waste water treatment facilities. The biosolids processing facility includes three sludge dryers located inside the processing building. As sludge passes through the enclosed dryer on belt conveyors, it is air-dried at low temperatures (~165 °F). Heat is provided by electric heat pumps. The moisture that is driven off is then condensed on the back side of the heat pump.

The biosolids processing facility is powered by the existing landfill gas-to-energy engines (Engines #1 and #2). Engines #1 and #2 were not considered project-affected emission units because they are not expected to see any change in operation. Use of the engines is maximized to produce power based on landfill gas availability. With this project, some of the power produced will be used by the biosolids processing facility rather than being provided to the grid.

The sludge dryers are an enclosed system with no defined vents. However, emissions of volatile organic compounds (VOC) and total reduced sulfur (TRS) compounds may be released from the building vents. The project includes the construction of two connected buildings: a sludge receiving and storage building and a processing building containing the dryers. Each building has a roof vent.

The facility includes an odor control system for the two buildings. The odor control system uses ultraviolet (UV) bulb technology to ionize oxygen in the incoming air, which then reacts with and oxidizes hydrogen sulfide compounds in the room. In addition, the buildings are equipped with high-velocity exhaust systems that quickly disperse any odorous compounds to minimize the impact on nearby off-site areas. The odor control equipment is not considered air pollution control equipment and it is afforded no credit for reduction in emissions of VOC or TRS. It is mentioned for completeness only.

The project also included the installation of an emergency generator with a natural gas- or propane-fired engine, Generator #3.

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 new sources and modifications is based on the demonstration contained in the underlying NSR license that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts. BACT for the biosolids processing facility was addressed in NSR #7 and explained in further detail below.

B. Biosolids Processing Facility

The sludge dryers are enclosed units with no defined vents. However, emissions of VOC and TRS compounds may be released from the roof vents of the buildings in which the sludge and dryers are located. Fugitive emissions from the building vents are addressed in this section.

1. BACT Findings

Potential control technologies considered for VOC and TRS emissions from the building vents included carbon adsorbers, condensers, flares, and thermal oxidizers.

The Department found that there were no available technically and economically feasible control options for reducing emissions of VOC or TRS from the building vents and that the existing annual facility-wide VOC emission limit of 39.9 tpy represents BACT for the biosolids processing facility.

The annual facility-wide limit on emissions of VOC shall remain unchanged at 39.9 tpy to avoid triggering requirements in *Reasonably Available Control Technology for Facilities That Emit Volatile Organic Compounds (VOC-RACT)*, 06-096 C.M.R. ch. 134.

Actual emissions of VOC and TRS from the biosolids processing facility shall be calculated at least once annually (for VOC) and every three years (for TRS) as required by *Emission Statements*, 06-096 C.M.R. ch. 137. Emissions from the buildings shall be calculated by assuming the average flow rate and concentration of pollutants from building vents is the same as those used in the application for this license unless site-specific data approved by the Department becomes available. The sludge receiving and storage building shall be assumed to be emitting VOC and TRS during any day that sludge is present in the building. The processing building shall be assumed to be emitting VOC and TRS during all hours the dryers are operating.

2. Recordkeeping

Emissions of VOC and TRS from the biosolids processing facility shall be based on the following records:

- a. Days sludge is present in the sludge receiving and storage building;
- b. Hours of operation of the dryers in the processing building; and
- c. Average flow rate and pollutant concentration of the building vents. The assumptions used in the application associated with this license may be used if site-specific data is not available.

C. Generator #3

WMDSM licensed the installation and operation of one new stationary emergency generator (Generator #3). Generator #3 is expected to be a Kohler model 150ERESC generator set, or similar, consisting of an engine and an electrical generator. The engine can fire either propane or natural gas. The generator has a maximum output of 144 kW while the engine has a rated output of approximately 226 HP (169 kW) when firing propane and 259 bhp (193 kW) when firing natural gas. In developing emission limits, the unit was conservatively assumed to be a 4-stroke, rich burn engine. Its maximum heat input is calculated to be 2.0 MMBtu/hr.

1. Visible Emissions

- a. 06-096 C.M.R. ch. 101

Generator #3 is subject to 06-096 C.M.R. ch. 101. Pursuant to this rule, Generator #3 is subject to the following visible emissions standard:

Visible emissions from Generator #3 shall not exceed an opacity of 20% on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

- b. 06-096 C.M.R. ch. 115, BACT

Generator #3 is subject to the following visible emission limit established under BACT:

Visible emissions from Generator #3 shall not exceed 10% opacity on a six-minute block average basis. [A-816-77-7-A (11/30/2023)]

c. Streamlining

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

2. *Stationary Generators*, 06-096 C.M.R. ch. 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to Generator #3. It is an emergency generator powered by an engine with a rated output of less than 1,000 brake horsepower (747 kW). Chapter 169 identifies emission standards for generator engines subject to this chapter and stack height requirements for certain generator engines subject to this chapter.

a. Chapter 169 Emission Standards Requirements

For Generator #3, WMDSM shall comply with the Chapter 169 emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 60, Subpart JJJJ. [06-096 C.M.R. ch. 169, § 4(B)(1)]

b. Chapter 169 Stack Height Requirements

Chapter 169 identifies stack height requirements for any stack used to exhaust a generator engine or combination of generator engines with a combined rated output equal to or greater than 1,000 brake horsepower (747 kW). Individual generator engines with a maximum power capacity of less than 300 kW are not included in the assessment of the combined generator power capacity exhausted through a common stack. [06-096 C.M.R. ch. 169, § 6]

There are no stack height requirements in Chapter 169 applicable to Generator #3 because it exhausts through its own stack and its rated output is less than 1,000 brake horsepower (747 kilowatts). [06-096 C.M.R. ch. 169, § 6]

3. New Source Performance Standards (NSPS)

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart JJJJ is applicable to Generator #3 since the unit was ordered after June 12, 2006, and manufactured after January 1, 2009. 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.

a. Emergency Engine Designation and Operating Criteria

Under Subpart JJJJ, a stationary reciprocating internal combustion engine (ICE) is considered an emergency stationary ICE (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 JJJJ, 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;
- 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 ICE 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.

[40 C.F.R. §§ 60.4243(d) and 60.4248]

b. 40 C.F.R. Part 60, Subpart JJJJ Requirements

(1) Manufacturer Certification Requirement

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1.

(2) Non-Resettable Hour Meter Requirement

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

[40 C.F.R. § 60.4237]

(3) Operation and Maintenance Requirement

The engine shall be operated and maintained according to the manufacturer's written instructions. WMDSM may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

(4) Annual Time Limit for Maintenance and Testing

The engine shall be limited to 100 hours/year for maintenance checks and readiness testing. Emergency engines may operate up to 50 hours per year in non-emergency situations, but those 50 hours are included in the 100 hours allowed for maintenance and testing. The 50 hours for non-emergency use cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 C.F.R. § 60.4243(d)]

(5) Recordkeeping

WMDSM shall keep records that include maintenance conducted on the engine(s) and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4245(b)]

4. Emission Limits and Streamlining

For Generator #3, 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	0.02 lb/hr	06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)	0.02 lb/hr
PM ₁₀	0.04 lb/hr		0.04 lb/hr
PM _{2.5}	0.04 lb/hr		0.04 lb/hr
NO _x	4.56 lb/hr		4.56 lb/hr
CO	7.06 lb/hr		7.06 lb/hr
VOC	0.06 lb/hr		0.06 lb/hr
Visible Emissions	As described earlier in this license		

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with Generator #3 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

6. Periodic Monitoring

WMDSM shall record data and maintain records for the following periodic monitoring values for Generator #3.

- a. Hours of operating time on a calendar year basis;
 - b. Log of the duration and reasons for all operating times as they occur; and
 - c. Records of all maintenance conducted.
- [06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023) and 06-096 C.M.R. ch. 137]

D. Changes to Applicable Visible Emission Requirements

Changes to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 were recently adopted by the Department and take effect on January 1, 2024. Following are the updated visible emission standards that apply to WMDSM and a description of any streamlining, if applicable.

1. Flares

a. 06-096 C.M.R. ch. 101

Flares #1 and #3 are subject to the following visible emissions standard:

Visible emissions from each flare (Flare #1 and #3) shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time WMDSM shall meet the normal operating visible emissions standard or the following alternate visible emissions standard.

During periods of startup, shutdown, or malfunction, visible emissions shall not exceed 40% opacity on a six-minute block average basis. This alternative visible emissions standard shall not be utilized for more than two hours (20 consecutive six-minute block averages) per event.
[06-096 C.M.R. ch. 101, § 4(A)(8)]

b. 06-096 C.M.R. ch. 115, BACT

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

c. 06-096 C.M.R. ch. 140, BPT

In Air Emission License A-816-70-H-R (5/2/2022), the Department established 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**

d. Streamlining

The Department has determined that the BPT visible emissions standard is more stringent than the applicable limit 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.

Therefore, there is no change required to licensed visible emissions limits for Flares #1 and #3.

2. LFGTE Engines #1 and #2

a. 06-096 C.M.R. ch. 101

LFGTE Engines #1 and #2 are subject to the following visible emissions standard:

Visible emissions from each engine shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

b. 06-096 C.M.R. ch. 115, BACT

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

c. Streamlining

The Department has determined that the 06-096 C.M.R. ch. 101 visible emissions standard is 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.

3. Generators #1 and #2

a. 06-096 C.M.R. ch. 101

Both Generators #1 and #2 were manufactured in 2002 and are subject to the following visible emissions standard:

Visible emissions from each of the emergency generators shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time WMDSM shall either meet the normal operating visible emissions

standard or the following work practice standards and alternative visible emissions standard.

- (1) The duration of the startup shall not exceed 30 minutes per event;
- (2) Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- (3) WMDSM shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day. [06-096 C.M.R. ch. 101, § 4(A)(8)]

b. 06-096 C.M.R. ch. 140, BPT

In Air Emission License A-816-70-C-R/A (7/18/2014), the Department established the following visible emissions standards through BPT:

Visible emissions from each of the emergency 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)] **Enforceable by State-only**

c. Streamlining

The Department has determined that the 06-096 C.M.R. ch. 101 visible emissions standard is 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. Fugitive Emissions

The visible emissions requirements for fugitive emissions is updated as follows:

WMDSM shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

WMDSM shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal

boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

E. 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 and establishing the facility’s potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations.

The totals listed are based on expected generation of gas from the landfill and 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.

This information does not 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	PM _{2.5}	SO ₂	NO _x	CO	VOC
Flare #1	1.3	1.3	1.3	37.4	5.2	28.2	–
Flare #3	3.9	3.9	3.9	112.3	15.6	84.8	–
LFGTE Engines #1 & #2	7.5	7.5	7.5	76.7	25.9	181.1	–
Emerg. Gen. #1	–	–	–	–	0.2	–	–
Emerg. Gen. #2	–	–	–	–	0.2	–	–
Emerg. Gen. #3	–	–	–	–	0.2	0.4	–
Biosolids Processing Facility	–	–	–	–	–	–	–
Facility-Wide	–	–	–	–	–	–	39.9
Total TPY	12.7	12.7	12.7	226.4	47.3	294.5	39.9

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

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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.

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 Amendment A-816-70-I-A pursuant to 06-096 C.M.R. 140 and the preconstruction permitting requirements of *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 and subject to the conditions found in Air Emission License A-816-70-H-R and the following conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 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 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 Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This License Amendment shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

SPECIFIC CONDITIONS

The following shall replace Condition (14)(H) of Air Emission License A-816-70-H-R:

(14) Solid Waste Landfill

H. Fugitive Emissions

1. WMDSM shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.
2. WMDSM shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

The following shall replace Condition (15)(F) of Air Emission License A-816-70-H-R:

(15) LFGTE Engines #1 and #2

- F. Visible emissions from each engine shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

The following shall replace Condition (16)(B) of Air Emission License A-816-70-H-R:

(16) Generators #1 and #2

- B. Visible emissions from each of the emergency generators shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time WMDSM shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.
1. The duration of the startup shall not exceed 30 minutes per event;
 2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and

3. WMDSM shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.
[06-096 C.M.R. ch. 101, § 4(A)(8)]

The following are New Conditions:

(27) Biosolids Processing Facility

- A. WMDSM is licensed to construct and operate a biosolids processing facility as outlined in this license. [06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]
- B. Emissions from the buildings shall be calculated by assuming the average flow rate and concentration of pollutants from building vents is the same as those used in the application for this license unless site-specific data approved by the Department becomes available. The sludge receiving and storage building shall be assumed to be emitting VOC and TRS during any day that sludge is present in the building. The processing building shall be assumed to be emitting VOC and TRS during all hours the dryers are operating. WMDSM shall keep the following records in order to calculate emissions of VOC and TRS from the biosolids processing facility:
 1. Days sludge is present in the sludge receiving and storage building;
 2. Hours of operation of the dryers in the processing building; and
 3. Average flow rate and pollutant concentration of the building vents. The assumptions used in the application associated with this license may be used if site-specific data is not available.[06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]

(28) Generator #3

- A. WMDSM is licensed to fire only propane or natural gas in Generator #3.
[06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]
- B. WMDSM shall keep records of all maintenance conducted on the engine associated with Generator #3. [06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]
- C. Emissions shall not exceed the following:
[06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #3	0.02	0.04	0.04	–	4.56	7.06	0.06

- D. Visible emissions from Generator #3 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]
- E. Generator #3 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJ, including the following. [06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]
1. **Manufacturer Certification**
The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJ, Table 1.
 2. **Non-Resettable Hour Meter**
A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4237 and 06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]
 3. **Annual Time Limit for Maintenance and Testing**
 - a. As an emergency engine, the unit shall 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). The limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4243(d) and 06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]
 - b. WMDSM shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4245(b)]
 4. **Operation and Maintenance**
The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by WMDSM that are approved by the engine manufacturer. WMDSM may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

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

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Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1

WMDSM shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 140, BPT]

F. WMDSM shall record data and maintain records for the following period monitoring values for Generator #3:

1. Hours of operating time on a calendar year basis;
 2. Log of the duration and reasons for all operating times as they occur; and
 3. Records of all maintenance conducted.
- [06-096 C.M.R. ch. 115, BACT (A-816-77-7-A, 11/30/2023)]

DONE AND DATED IN AUGUSTA, MAINE THIS 17th DAY OF JANUARY, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-816-70-H-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/6/2023

Date of application acceptance: 10/6/2023

Date filed with the Board of Environmental Protection:

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

FILED
JAN 17, 2024
State of Maine
Board of Environmental Protection