



DEPARTMENT ORDER

State of Maine and
NEWSME Landfill Operations, LLC
d/b/a Juniper Ridge Landfill
Penobscot County
Old Town, Maine
A-921-70-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	State of Maine and NEWSME Landfill Operations , LLC d/b/a Juniper Ridge Landfill
LICENSE TYPE	06-096 C.M.R. ch. 115, Minor Modification
NAICS CODES	562212
NATURE OF BUSINESS	Solid Waste Landfill
FACILITY LOCATION	2828 Bennoch Road, Old Town, Maine

Juniper Ridge Landfill (JRL) is a solid waste disposal facility currently owned by the State of Maine (Bureau of General Services) and operated by NEWSME Landfill Operations, LLC.

New Source Review (NSR) license A-921-77-6-A (NSR #6), issued December 8, 2023, addressed conversion of the pilot light on Flare #4 from intermittent to continuous operation. JRL has requested that the provisions of NSR #6 be incorporated into their Part 70 license.

In addition, the Department is taking this opportunity to address recent changes to applicable requirements contained on *Visible Emissions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 101.

B. Emission Equipment

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

Process Equipment

Equipment	Capacity	Maximum Flow Rate (scfm)
Flare #2	22.5 MMBtu/hr	750
Flare #3	40.5 MMBtu/hr	1,350
Flare #4	106.5 MMBtu/hr	3,550

Generators

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Mfr. Date	Install. Date
Generator #1	2.33	17.0	distillate fuel, 0.0015%	3/16/2006	8/21/2006

C. 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.

JRL has requested incorporation into the Part 70 Air License the relevant terms and conditions of NSR #6 pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115. NSR #6 was a minor modification that involved only new equipment (i.e., the new continuous pilot light) and did not modify any existing Best Available Control Technology (BACT) requirements. Therefore, this license application was considered a Part 70 Minor Modification and processed under *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

D. Amendment Description

The State of Maine (Bureau of General Services) owns the Juniper Ridge Landfill, which is currently operated by NEWSME Landfill Operations, LLC. Gases formed from the decomposition of the landfill materials are collected and controlled by the facility's three flares.

The landfill gas (LFG) generated at JRL is collected and then flared or sent to a nearby independent facility operated by AHJRLLLFG LLC (Archaea). Archaea may process JRL's LFG for sale or beneficial use. The processing of the LFG at the Archaea facility is considered a treatment system equivalent to JRL's flares.

The primary flare at JRL is Flare #4. It is rated at 106.5 MMBtu/hr (3,550 scfm) and is typically in continuous use. Flares #2 and #3 are to be used as back-up and are rated at 22.5 MMBtu/hr (750 scfm) and 40.5 MMBtu/hr (1,350 scfm), respectively.

Flare #4 operated a propane-fueled pilot light intermittently as needed to ensure a continuous flame. The flare is monitored by a heat sensing device to ensure there is flame present whenever the flare is in operation.

With startup of the Archaea facility, JRL may no longer need to use their flares continuously. However, they will still be used to control any LFG not processed by the Archaea facility. Upsets in Archaea's system, especially during commissioning, may cause LFG to be rerouted to Flare #4 unpredictably. Therefore, JRL proposed a continuous pilot light for Flare #4 to ensure flame is always present to spark ignition of the LFG. The pilot light has a maximum heat input of 0.55 MMBtu/hr firing natural gas or propane.

Due to its size, the continuous pilot light for Flare #4 is considered an insignificant activity pursuant to *Part 70 Air Emission License Regulation*, 06-096 C.M.R. ch. 140, Appendix B, §§ B.1 and 2.

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. As an insignificant activity, BACT was not required for the Flare #4 pilot light.

B. Changes to Applicable Visible Emissions 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 JRL and a description of any streamlining, if applicable.

1. Flares

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

Flares #2, #3, and #4 are subject to the following visible emissions standard:

Visible emissions from each flare (Flares #2, #3, and #4) shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time JRL 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 #2, #3, and #4 are subject to the following visible emission limit established under BACT:

Visible emissions from Flares #2, #3, and #4 shall each not exceed 20% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 115, BACT (A-921-77-2-A, 11/26/2012)]

c. Streamlining

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

Therefore, there is no change required to licensed visible emissions limits for Flares #2, #3, and #4.

2. Generator #1

Generator #1 is an emergency generator manufactured on March 16, 2006. It is subject to no other visible emissions standard other than that contained in 06-096 C.M.R. ch. 101, which has been updated to the following:

Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time JRL 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) JRL 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)]

3. Fugitive Emissions

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

JRL 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.

JRL 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)]

C. Facility Annual Emissions

This license amendment will not change the facility's licensed annual emissions.

State of Maine and
NEWSME Landfill Operations, LLC
d/b/a Juniper Ridge Landfill
Penobscot County
Old Town, Maine
A-921-70-I-A

6

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

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-921-70-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-921-70-F-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 (17)(D) of Air Emission License A-921-70-F-R:

(17) **Generator #1**

D. Visible Emissions

Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time JRL 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

State of Maine and
NEWSME Landfill Operations, LLC
d/b/a Juniper Ridge Landfill
Penobscot County
Old Town, Maine
A-921-70-I-A

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

7

3. JRL 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 shall replace Condition (18) of Air Emission License A-921-70-F-R:

(18) Fugitive Emissions

1. JRL 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. JRL 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)]

DONE AND DATED IN AUGUSTA, MAINE THIS 26th 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-921-70-F-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/13/2023

Date of application acceptance: 10/13/2023

Date filed with the Board of Environmental Protection:

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

