



DEPARTMENT ORDER

**ReEnergy Livermore Falls LLC
Androscoggin County
Livermore Falls, Maine
A-555-70-O-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	ReEnergy Livermore Falls LLC
LICENSE TYPE	Part 70 Significant License Modification
NAICS CODES	221119
NATURE OF BUSINESS	Electric Power Generation
FACILITY LOCATION	267 Diamond Road, Livermore Falls, Maine

ReEnergy Livermore Falls LLC (RELf) is a biomass-fired electric generating facility capable of generating approximately 36 net megawatts of electricity. The plant consists of one steam generating unit (Boiler #1) which fires primarily sawmill residues and whole tree chips.

In 2023, the Department completed rulemaking on revisions to *Visible Emissions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 101. The revised rule went into effect on January 1, 2024. RELf has requested an amendment to their Part 70 License to address new and revised applicable requirements due to this rulemaking.

B. Emission Equipment

The following emission units are impacted by this Part 70 License amendment:

Boiler

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (ton/hr)	Fuel Type, % sulfur	Install. Date
Boiler #1	585.9	65.1	biomass, negligible	1992

Engines

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Install. Date
Generator #3	3.7	27.0	distillate fuel, 0.0015%	1992
Fire Pump #1	1.6	11.7	distillate fuel, 0.0015%	1992

C. Definitions

Biomass means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue and wood products (*e.g.*, trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings). This definition also includes wood chips and processed pellets made from wood or other forest residues. Inclusion in this definition does not constitute a determination that the material is not considered a solid waste. RELF should consult with the Department before adding any new biomass type to its fuel mix.

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.

Records or Logs mean either hardcopy or electronic records.

D. 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 RELF does not include the licensing of increased emissions; however, this modification does include changes to monitoring and recordkeeping requirements. Therefore, the license application is considered to be a Part 70 Significant License Modification processed under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

II. APPLICABLE VISIBLE EMISSIONS STANDARDS AND REQUESTS FOR STREAMLINING

A. Boiler #1

For the purposes of complying with the visible emission standards in this license, *startup* is defined as a period which begins when any fuel is fired in the boiler after a shutdown and ends no later than 4 hours after power generation commences (i.e., 4 hours after generator breaker-closed). Startup may also end by removal of fire from the boiler.

Shutdown is defined as a period which begins when power generation ceases and ends when fuel is no longer being combusted in the boiler.

Malfunction is defined as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 C.F.R. § 60.2]

1. 40 C.F.R. Part 60, Subpart Db

Boiler #1 is subject to the following visible emissions standard pursuant to 40 C.F.R. Part 60, Subpart Db:

Visible emissions from Boiler #1 shall not exceed 20% opacity on a six-minute block average basis, except for no more than one (1) six-minute block average in a one-hour period of not more than 27% opacity. This standard applies at all times except for periods of startup, shutdown, and malfunction.

[40 C.F.R. §§ 60.43b(f) and (g)]

2. 06-096 C.M.R. ch. 101

Boiler #1 is subject to the following visible emissions standard pursuant to 06-096 C.M.R. ch. 101, § 4(A)(5)(b):

Visible emissions from Boiler #1 shall not exceed 20% opacity on a six-minute block average basis for 95% of all six-minute block averages on a quarterly basis. The remaining 5% of all six-minute block averages on a quarterly basis shall be no greater than 45% opacity. Periods of startup, shutdown, and malfunctions are included for the purpose of calculating block averages. Periods when the unit is not operating are not included for the purpose of calculating block averages.

3. 06-096 C.M.R. ch. 140, BPT

In Air Emission License A-555-70-G-R (4/15/2009), the Department established visible emission standards for Boiler #1 and work practice standards (WPS) for periods of cold startup through Best Practical Treatment (BPT).

The WPS were part of a plan submitted pursuant to *Compliance Assurance Monitoring*, 40 C.F.R. Part 64 (CAM). However, it has since been determined CAM is not applicable to Boiler #1 because it is subject to a particulate matter emission limit in 40 C.F.R. Part 60, Subpart Db, which was proposed after November 15, 1990. [40 C.F.R. § 64.2(b)(1)(i)]

Because the current visible emission standards and WPS were established pursuant to the Department's authority under BPT and are not linked to a federal applicable requirement, such as New Source Review or CAM, the Department is taking this opportunity to reestablish BPT as follows:

Visible Emissions from Boiler#1 shall not exceed 20% opacity on a six-minute block average basis at all times the unit is operating, except for the following:

- a. For one (1) six-minute block per hour during normal operation (i.e., other than during periods of startup, shutdown, or malfunction), visible emissions may exceed 20% opacity but shall not exceed 27% opacity; and
- b. During periods of startup, shutdown, or malfunction, visible emissions shall not exceed 45% opacity for any six-minute block average.

In addition, the number of six-minute block averages greater than 20% opacity shall not exceed 5% of the total number of six-minute block averages for all times Boiler #1 is operating during any calendar quarter, including periods of normal operation as well as periods of startup, shutdown, or malfunction.

These new BPT standards are considered more stringent than the previous combination of visible emission standards and WPS because they no longer allow any periods of unlimited opacity.

4. Streamlining

The Department has determined that the new BPT visible emissions standard is more stringent than all other applicable standards. Therefore, the visible emissions limits have been streamlined to the more stringent BPT limit, and only this more stringent limit shall be included in the Order of this air emission license. Streamlining the BPT limit with the Federally enforceable limits in 40 C.F.R. Part 60, Subpart Db and 06-096 C.M.R. ch. 101 makes the BPT limit Federally enforceable.

B. Generator #3 and Fire Pump #1

On January 1, 2024, the applicable visible emissions standard for Generator #1 and Fire Pump #1 contained in 06-096 C.M.R. ch. 101 changed to the following:

Visible emissions from Generator #3 and Fire Pump #1 shall each not exceed an opacity of 20% on a six-minute block average basis, except during periods of startup. During periods of startup, the engines must meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day per engine.

- a. The duration of the startup shall not exceed 30 minutes per event;
- b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- c. RELF shall keep records as of the date, time, and duration of each startup event. [06-096 C.M.R. ch. 101, § 4(A)(4)]

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

This new standard is considered more stringent than the applicable requirement in the previous version of 06-096 C.M.R. ch. 101, and only this more stringent standard shall be included in the Order of this air emission license.

C. Fugitive Emissions

On January 1, 2024, the applicable visible emissions standard for Fugitive Emissions contained in 06-096 C.M.R. ch. 101 changed to the following:

RELF 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.

RELF 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)]

This new standard is considered more stringent than the applicable requirement in the previous version of 06-096 C.M.R. ch. 101, and only this more stringent standard shall be included in the Order of this air emission license.

D. General Process Sources

There is no change to the visible emissions standard for general process sources, however, this license amendment updates the citation from 06-096 C.M.R. ch. 101, § 3(B)(4) to 06-096 C.M.R. ch. 101, § 4(B)(4).

E. Facility Annual Emissions

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

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-555-70-O-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-555-70-N-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 Conditions (14)(G) of Air Emission License A-555-70-N-R:

(14) Boiler #1

G. Visible Emissions

Visible Emissions from Boiler#1 shall not exceed 20% opacity on a six-minute block average basis at all times the unit is operating, except for the following:

1. For one (1) six-minute block per hour during normal operation (i.e., other than during periods of startup, shutdown, or malfunction), visible emissions may exceed 20% opacity but shall not exceed 27% opacity; and
2. During periods of startup, shutdown, or malfunction, visible emissions shall not exceed 45% opacity for any six-minute block average.

In addition, the number of six-minute block averages greater than 20% opacity shall not exceed 5% of the total number of six-minute block averages for all times Boiler #1 is operating during any calendar quarter, including periods of normal operation as well as periods of startup, shutdown, or malfunction. [06-096 C.M.R. ch. 140, BPT]

Condition (14)(H) of Air Emission License A-555-70-N-R is removed.

The following shall replace Condition (15)(E) of Air Emission License A-555-70-N-R:

(15) Generator #3 and Fire Pump #1

E. Visible Emissions

Visible emissions from Generator #3 and Fire Pump #1 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time RELF 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. RELF 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 per engine. [06-096 C.M.R. ch. 101, § 4(A)(4)]

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

The following shall replace Condition (17) of Air Emission License A-555-70-N-R:

(17) Fugitive Emissions

- A. RELF 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.
- B. RELF 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)]

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The following shall replace Condition (18) of Air Emission License A-555-70-N-R:

(18) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

DONE AND DATED IN AUGUSTA, MAINE THIS 4th DAY OF JUNE, 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-555-70-N-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 12/11/2023

Date of application acceptance: 12/12/2023

Date filed with the Board of Environmental Protection:

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

FILED
JUN 04, 2024
State of Maine
Board of Environmental Protection