

#### STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

#### DEPARTMENT ORDER

Standard Biocarbon Corporation Penobscot County Enfield, Maine A-1158-71-B-A Departmental Findings of Fact and Order Air Emission License Amendment # 1

### FINDINGS OF FACT

After review of the air emission 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

Standard Biocarbon Corporation (SBC) was issued Air Emission License A-1158-71-A-N on November 12, 2021, for the operation of emission sources associated with their new biocarbon (also called biochar) production and distribution facility in East Millinocket.

SBC has requested an amendment to their license in order to relocate their facility to Enfield, Maine. The facility plans to install two PYREG units instead of the four originally licensed for the East Millinocket site, reducing potential emissions at the new site.

The equipment addressed in this license amendment will be located at 542 Hammett Road in Enfield, Maine.

#### B. Title, Right, or Interest

Since this is a new location for the facility, SBC submitted copies of a property quit claim deed demonstrating ownership of the property. SBC has provided sufficient evidence of title, right, or interest in the facility for purposes of this air emission license.

### C. Emission Equipment

The following equipment is addressed in this air emission license amendment:

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
PYREG	5.2	~1,370 lb/hr	Syngas (negligible %S)	2022	2022	#1
Unit #1	1.4 (Startup only)	15.3 gph	Propane (negligible %S)	2022	2022	#1
PYREG Unit #2	5.2	~1,370 lb/hr	Syngas (negligible %S)	2022	2022	#2
01iit #2	1.4 (Startup only)	15.3 gph	Propane (negligible %S)	2022	2022	#2

# **Fuel Burning Equipment**

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## **Stationary Engines**

SBC may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.

http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf

Additionally, SBC may operate <u>portable</u> engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

#### D. Definitions

<u>Biomass</u> 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. SBC should consult with the Department before adding any new biomass type to its fuel mix.

<u>Records</u> or <u>Logs</u> mean either hardcopy or electronic records.

<u>*TPY*</u> means tons per year.

### E. Application Classification

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

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The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (TPY)	Future License (TPY)	Net Change (TPY)	Significant Emission Levels
PM	10.9	5.5	-5.4	100
PM10	10.9	5.5	-5.4	100
SO <sub>2</sub>	0.2	0.1	-0.1	100
NO <sub>x</sub>	20.0	10.0	-10.0	100
СО	7.5	3.7	-3.8	100
VOC	0.5	0.3	-0.2	100

The Department has determined the amendment is a minor modification at a minor source, and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115.

#### F. Facility Classification

The facility is licensed as follows:

- As a natural minor source of air emissions, because no license restrictions are necessary to keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

# II. BEST PRACTICAL TREATMENT (BPT)

## 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.

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BPT for new sources and modifications requires a demonstration 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.

### B. Process Description



The proposed layout of the facility is depicted in the figure above with emission units and emission points identified. Dry woodchips (~ 20% moisture) shall be produced on site or shall be delivered to the facility using live-floor containers (each containing 100 to 120 cubic yards). The containers are to be unloaded onto a covered pad located outside SBC's facility. The woodchips are then transferred to a screw feed bin or container that will send the chips via covered conveyors to bulk storage (approximately 80 cubic yard capacity push rod bin); if the wood chips need to be re-sized, they will be sent to a shredder then to bulk storage. The covered conveyor will direct woodchips to one of two carbonization units each capable of converting approximately 3,000 tons per year (TPY) of woodchips into 750 TPY of biochar. Combined, the two carbonization units will process up to 6,000 TPY (approximately 16.5 tons per day) of woodchips, producing 1,500 TPY (approximately 4 tons per day) of biochar. The final biochar product will be cooled, bagged, and stored for transport.

Woodchips are continuously fed via screw conveyor through the PYREG reactor where the biomass is slowly heated, degassed, and carbonized via pyrolysis at temperatures of 930 to 1300 degrees Fahrenheit (°F). Pyrolysis, conducted in an oxygen-starved environment, produces a solid (biochar), vaporized organic compounds, water, and non-condensable gases.

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As the temperature within the PYREG reactor increases, residual moisture within the biomass evaporates and the woodchips begin to soften, releasing chemically bound water, small amounts of carbon dioxide (CO<sub>2</sub>), and volatile organic compounds (VOC). As the woodchips are further heated from 390 to 530 °F, the chips become torrefied as chemical bonds within the biomass begin to break releasing emissions of methane (CH<sub>4</sub>), VOC, CO<sub>2</sub>, and carbon monoxide (CO) from the breakdown of cellulose and hemicellulose. As temperatures approach 570 °F, further thermal decomposition of the biomass occurs releasing a combustible mixture of hydrogen, CO, CH<sub>4</sub>, CO<sub>2</sub>, as well as other hydrocarbons and tars.

At this point in the process, the biochar created contains appreciable amounts of VOC. The biochar is heated to 1,100 °F to increase the stable carbon content, surface area, and porosity of the char by decomposing more of the volatile organics. Once the temperature reaches 1,300 °F, more volatile organics are released, increasing the carbon content of the biochar to approximately 90 percent.

### Syngas

The synthesis gas, or syngas, is the collection of gases generated in the PYREG reactors containing primarily CO, CO<sub>2</sub>, H<sub>2</sub>, nitrogen (N<sub>2</sub>). These gases are produced from small amounts of air that enter the PYREG reactor with the woodchips and water vapor. The syngas contains less than 10 percent by volume of short-chained hydrocarbons (such as methane, ethane, propane, and butane) that add calorific value. The higher heating value of the syngas is approximately 3,800 Btu/lb.

## Hot Gas Filter

Upon exiting the PYREG reactor, the syngas is filtered in a pressure membrane filter vessel designed to withstand the high temperature of the syngas which is approximately 1,000 to 1,200 °F. Membrane filters are different from traditional fabric filters in that filterable particulate matter (PM) is collected on the membrane surface and there is no reliance on a filter cake to drive efficiency. Instead, the membrane acts as the primary filter cake which inhibits the migration of smaller particles into the filter material and improves filter cake release during backflow cleaning. The pressure vessel filter utilizes a pulse jet backflow cleaning system which removes particulate matter from the surface of the membrane filters with bursts of compressed nitrogen. The duration of the pulse of compressed nitrogen is within the range of 100 to 200 microseconds, and filter cartridges are cleaned individually which facilitates continuous operations. PYREG estimates that the pressure vessel membrane filter removes 99% of precombustion PM including filterable particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>).

#### FLOX Combustion Chamber

Once filtered, the syngas enters the combustion chamber which utilizes a 5.2 MMBtu/hr FLOX (flameless oxidation) burner. In FLOX burners, the fuel gases/syngas and combustion air are vigorously mixed prior to the onset of flame reactions. This leads to a homogenous temperature distribution within the chamber and reduced peak temperature zones, minimizing the formation of thermal  $NO_x$ . The combustion chamber also includes a separate 1.4 MMBtu/hr propane burner that will be utilized upon startup of the unit until the process can operate auto-thermally.

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## C. PYREG Units #1-#2 BACT Findings

SBC was originally licensed to install and operate four PYREG units located at the East Millinocket site; however, SBC has decided to change the location of its operations to be co-located with a lumber mill where SBC will have the option to purchase chips onsite from the mill avoiding transportation costs. In addition, SBC will be able to deliver heat back to the lumber mill for use in their buildings and in the kiln system. As part of this license amendment, SBC has requested to install, license, and operate two PYREG units in Enfield. The RACT/BACT/LAER clearing house BACT Control Review and the BACT Finding for Combustion Controls can be found in SBC's original license A-1158-71-A-N (November 12, 2021). The BACT limits are based on the PYREG units in operation in Europe: SBC obtained emissions testing results from three PYREG PX500 units located in Dorth, Germany and used these results to develop BACT emission limits and the potential to emit (PTE) calculations of each unit.

## 1. BACT Findings

a. Emission Limits

The BACT emission limits for PYREG units were based on the following:

### Syngas

$PM/PM_{10}$	_	0.12 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT
$SO_2$	_	0.01 lb/hr, 06-096 C.M.R. ch. 115, BACT
NO <sub>x</sub>	_	0.22 lb/MMBtu based on manufacturer's specifications,
		06-096 C.M.R. ch. 115, BACT
CO	_	0.08 lb/MMBtu based on manufacturer's specifications,
		06-096 C.M.R. ch. 115, BACT
VOC	_	0.005 lb/MMBtu based on manufacturer's specifications,
		06-096 C.M.R. ch. 115, BACT
Visible Emissions	—	06-096 C.M.R. ch. 115, BACT

#### Propane Propane

PM/PM <sub>10</sub>	_	0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT
$SO_2$	_	0.01 lb/hr, 06-096 C.M.R. ch. 115, BACT
NO <sub>x</sub>	_	13 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08
CO	_	7.5 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08
VOC	_	1 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08
Visible Emissions	_	06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the PYREG units are the following.

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Emissions when firing syngas shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
PYREG Unit #1	PM	0.12	06-096 C.M.R. ch. 115, BACT
PYREG Unit #2	PM	0.12	06-096 C.M.R. ch. 115, BACT

Emissions when firing syngas shall not exceed the following: [06-096 C.M.R. ch. 115, BACT]

Emission Unit	PM (lb/hr)	PM10 (lb/hr)	SO <sub>2</sub> (lb/hr)	NOx (lb/hr)	CO (lb/hr)	VOC (lb/hr)
PYREG Unit #1	0.62	0.62	0.01	1.14	0.42	0.03
PYREG Unit #2	0.62	0.62	0.01	1.14	0.42	0.03

Emissions when firing propane shall not exceed the following: [06-096 C.M.R. ch. 115, BACT]

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NOx (lb/hr)	CO (lb/hr)	VOC (lb/hr)
PYREG Unit #1	0.07	0.07	0.01	0.20	0.11	0.02
PYREG Unit #2	0.07	0.07	0.01	0.20	0.11	0.02

2. Visible Emissions

Visible emissions from each PYREG unit when firing syngas shall not exceed 20% opacity on a six-minute block average basis

Visible emissions from the each PYREG unit when firing propane shall not exceed 10% opacity on a six-minute block average basis.

3. Periodic Monitoring

Periodic monitoring for the PYREG units shall include recordkeeping to document the amount of biomass and propane used both on a monthly and calendar year total basis.

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The following parameters shall be recorded.

Parameter	Units of Measure	Monitoring tool/method	Frequency of Monitor	Frequency of Recordkeeping
Pressure drop across hot gas filter	Pressure difference	Differential pressure gauge	continuously	Once per shift
FLOX combustion temperature	°F	Thermometer	continuously	Continuously, with Maximum and Minimum values recorded daily
Biomass Moisture content	%	Lab test	monthly	Monthly

4. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

The federal regulation Subpart Dc, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, applies to new, modified, and reconstructed steam generating units with a maximum design heat input capacity greater than 10 MMBtu/hr but less than or equal to 100 MMBtu/hr. Subpart Dc defines a steam generating unit as follows:

a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

The PYREG carbonization units are not subject to Subpart Dc because the design heat input capacity of each unit is 5.2 MMBtu/hr which is less than the 10 MMBtu/hr applicability threshold.

5. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJJ

The federal regulation National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers, 40 C.F.R. Part 63, Subpart JJJJJJ, applies to all new, reconstructed, and existing boilers located at an area

source of HAP. The proposed SBC facility has been classified as an area source of HAP because the facility has a potential to emit less than 10 TPY of a single HAP and less than 25 TPY of all HAP combined. Subpart JJJJJJ defines "boiler" as follows:

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an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam of hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled... Waste heat boilers, process heaters, and autoclaves are excluded from the definition of Boiler.

The PYREG carbonization units do not meet the definition of boiler because the hot water generated by the system is not created within an enclosed device using flame combustion. In addition, gas-fired boilers which are defined as boilers designed to burn gaseous fuels, are also specifically exempted from Subpart JJJJJJ. The term "gaseous fuels" includes but is not limited to natural gas, process gas, landfill gas, coal derived gas, refinery gas, hydrogen, and biogas which is the fuel the carbonization units will combust.

- D. Performance Testing [06-096 C.M.R. ch. 115, BACT]
  - 1. Within 180 days of the first PYREG unit firing syngas, SBC shall conduct stack testing to demonstrate compliance with the associated lb/hr emission limits for PM, PM<sub>10</sub>, NO<sub>x</sub>, and VOC and lb/MMBtu emission limits for PM and PM<sub>10</sub> during normal operating conditions.

If any of the tested pollutant emissions are greater than 75% of the emission limit, SBC shall test both units for each pollutant with emissions greater than 75% within two years of the initial testing date.

2. For any performance testing required by this license, SBC 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: <u>https://www.maine.gov/dep/air/emissions/testing.html</u>

3. SBC shall submit a stack test protocol, submit stack test results, and use methods approved by the Department as outlined in the Standard Conditions of this license. Stack testing of one of the operating PYREG units shall be representative of the emissions from the other units at the facility.

Testing on a PYREG unit stack shall be performed in accordance with the compliance methods listed below or in accordance with test methods approved by the Department and shall be conducted on syngas only:

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Pollutant	Compliance Method					
РМ	EPA Method 5 (Performance Test)					
PIM	40 C.F.R. Part 60, App. A, Method 5					
DM	40 C.F.R. Part 60, App. A, Method 5 or EPA					
$PM_{10}$	Test Method 201 or 201A and Method 202					

Pollutant	Compliance Method					
РМ	EPA Method 5 (Performance Test)					
P IVI	40 C.F.R. Part 60, App. A, Method 5					
PM10	40 C.F.R. Part 60, App. A, Method 5 or EPA					
	Test Method 201 or 201A and Method 202					
NO <sub>x</sub>	40 C.F.R. Part 60, App. A, Method 7					
VOC	40 C.F.R. Part 60, App. A, Method 25 or 25A					

## E. Emission Statements, 06-096 C.M.R. ch. 137

SBC is not subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. SBC is not licensed to emit criteria air pollutants in amounts at or exceeding the minimum reporting thresholds of Ch. 137.

# F. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.

## G. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

## H. 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. Maximum potential emissions were calculated based on operating two PYREG carbonization units 8,760 hr/yr. Propane emissions have not been included in the table since the normal hourly emissions from combusting syngas are higher than that of propane.

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This table provides the basis for fee calculation <u>only</u> 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	<b>PM</b> <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC		
PYREG Units #1 - #2	5.5	5.5	0.1	10	3.7	0.3		
Total TPY 5.5 5.5 0.1 10 3.7 0.3								

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Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

## III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM10	25
$SO_2$	50
NO <sub>x</sub>	50
СО	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

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

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

The Department hereby grants Air Emission License Amendment A-1158-71-B-A subject to the conditions found in Air Emission License A-1158-71-A-N and the following conditions.

<u>Severability</u>. 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 condition shall replace Specific Condition (17) found in A-1158-71-A-N (11/12/2021).

## (17) **PYREG UNITS #1-#2**

A. Fuel

- 1. SBC is licensed to combust syngas derived from biomass in the FLOX combustion chamber. Propane shall be used solely as a startup fuel.
- 2. SBC shall use FLOX burners utilizing Flue Gas Recirculation (FGR) for control of NO<sub>x</sub> in the PYREG carbonization units whenever the units are operating.
- B. Stack Height

Each PYREG unit shall exhaust through its own stack having a height of at least 48 feet above ground level.

C. Emissions while firing syngas shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
PYREG Unit #1	PM	0.12	06-096 C.M.R. ch. 115, BACT
PYREG Unit #2	PM	0.12	06-096 C.M.R. ch. 115, BACT

D. Emissions when firing syngas shall not exceed the following: [06-096 C.M.R. ch. 115, BACT]

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
PYREG Unit #1	0.62	0.62	0.01	1.14	0.42	0.03
PYREG Unit #2	0.62	0.62	0.01	1.14	0.42	0.03

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E. Emissions when firing propane shall not exceed the following: [06-096 C.M.R. ch. 115, BACT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
PYREG Unit #1	0.07	0.07	0.01	0.2	0.11	0.02
PYREG Unit #2	0.07	0.07	0.01	0.2	0.11	0.02

- F. Visible Emissions
  - Visible emissions from the each PYREG unit firing propane shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3)]
  - 2. Visible emissions from each PYREG unit when firing syngas shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- G. Performance Testing [06-096 C.M.R. ch. 115, BACT]
  - 1. Within 180 days of the first PYREG unit firing syngas, SBC shall conduct stack testing to demonstrate compliance with the associated lb/hr emission limits for PM, PM<sub>10</sub>, NO<sub>x</sub>, and VOC and lb/MMBtu emission limits for PM and PM<sub>10</sub> during normal operating conditions.
  - 2. If any of the tested pollutant emissions are greater than 75% of the emission limit, SBC shall test both units for each pollutant with emissions greater than 75% the within two years of the initial testing date.
  - 3. For any performance testing required by this license, SBC 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: <u>https://www.maine.gov/dep/air/emissions/testing.html</u>

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4. SBC shall submit a stack test protocol, submit stack test results, and use methods approved by the Department as outlined in the Standard Conditions of this license. Stack testing of one of the operating PYREG stacks shall be representative of the emissions from the other units at the facility. Testing on a PYREG unit stack shall be performed in accordance with the compliance methods listed in the following table and shall be conducted on syngas only:

Pollutant	Compliance Method
PM	40 C.F.R. Part 60, App. A, Method 5
РМ	40 C.F.R. Part 60, App. A, Method 5
PM <sub>10</sub>	40 C.F.R. Part 60, App. A, Method 5 or EPA Test Method 201 or 201A and Method 202
PM <sub>10</sub>	40 C.F.R. Part 60, App. A, Method 5 or EPA Test Method 201 or 201A and Method 202
NO <sub>x</sub>	40 C.F.R. Part 60, App. A, Method 7
VOC	40 C.F.R. Part 60, App. A, Method 25 or 25A

5. Periodic Monitoring and Recordkeeping

Periodic monitoring for the PYREG units shall include recordkeeping to document the amount of biomass and propane used both on a monthly and calendar year total basis. SBC shall record the amount of biomass received based on information provided by the supplier or shall weigh, measure, and calculate the tons of biomass conveyed into the system. [06-096 C.M.R. ch. 115, BACT]

The following parameters and operational values shall be monitored and recorded.

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Parameter	Units of	Monitoring	Frequency	Frequency of
	Measure	tool/method	of Monitor	Recordkeeping
Pressure drop across hot	Pressure	Differential	continuously	Once per shift
gas filter	difference	pressure		
		gauge		
FLOX combustion	°F	Thermometer	continuously	Continuously,
temperature				with Maximum
				and Minimum
				values recorded
				daily
Biomass Moisture content	%	Lab test	monthly	Monthly

[06-096 C.M.R. ch. 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 13th DAY OF OCTOBER, 2022.

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-1158-71-A-N.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 6, 2022 Date of application acceptance: May 9, 2022

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa P. Higgins, Bureau of Air Quality.

FILED

OCT 13, 2022

State of Maine Board of Environmental Protection