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

DEPARTMENT ORDER

Hancock Lumber Company, Inc. **Somerset County** **Pittsfield, Maine** **A-932-71-E-A**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Amendment #2**

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

Hancock Lumber Company, Inc. (Hancock) was issued Air Emission License A-932-71-C-R on March 16, 2017, for the operation of emission sources associated with their lumber mill. The license was subsequently amended on June 28, 2017 (A-932-71-D-M).

Hancock has requested an amendment to their license in order to install a new, biomass-fired boiler, Boiler #2. The Department is also using this amendment as an opportunity to clarify the recordkeeping and reporting required by *Emission Statements*, 06-096 C.M.R. ch. 137, and to correct the particulate matter emission limits for Boiler #1.

The equipment addressed in this license amendment is located at 407 Stinson Street, Pittsfield, Maine.

B. Emission Equipment

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

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
Boiler #1	12.6	1.4 ton/hr*	Biomass, Negl.	1985	1985	1
Boiler #2	9.5	1.06 ton/hr*		2018	2018	2

*Based on firing biomass with a moisture content of 50%, by weight

C. Definitions

Biomass. For the purposes of this license and in accordance with 40 C.F.R. Part 63, Subpart JJJJJJ, *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); and vegetative agricultural and sylvicultural materials, such as logging residues (slash).

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 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	18.2	24.3	+6.1	100
PM_{10}	18.2	24.3	+6.1	100
SO_2	1.4	2.0	+0.6	100
NO_x	12.1	17.8	+5.7	100
CO	33.1	48.6	+15.5	100
VOC	33.7	34.2	+0.5	50
CO_2e	<100,000	<100,000	---	100,000

This modification is determined to be a minor modification and has been processed as such.

E. Facility Classification

With the annual fuel limit on Boilers #1 and #2 and the throughput limit associated with the Kilns, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the 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.

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. Boiler #1 Particulate Matter Emission Limit Correction

When Boiler #1 was initially licensed in A-932-71-A-N (January 20, 2006), the BACT emission limits were determined to be 0.33 lb/MMBtu for PM and 4.2 lb/hr for PM and PM_{10}. These limits, however, are higher than those provided in *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103, and thus were given in error. Based on this fact, the BACT limits for Boiler #1 shall be corrected to 0.3 lb/MMBtu for PM and 3.8 lb/hr for PM and PM_{10}.

C. Boiler #2

Hancock plans to manufacture, install, and operate Boiler #2 for steam and heat for the purposes of drying lumber in 2018. The boiler will be rated at 9.5 MMBtu/hr, will fire biomass at a maximum rate of 1.06 tons/hour, and will vent through its own stack, Stack #2 (minimum 50 feet above ground level) with emissions from Boiler #2 controlled by a single multiple cyclone (multi-clone).

Hancock is also planning to install a back-pressure turbine to generate electricity from the steam coming directly from Boiler #2. The resulting steam coming from the turbine will be at a lower pressure appropriate for distribution to the facility's lumber drying kilns. The turbine will improve the facility's energy efficiency by making use of the energy that would otherwise be lost by a mechanical pressure reduction system. The back-pressure turbine will not increase steam demand from the boilers; therefore, the use of the back-pressure turbine will not cause any increase in the facility's licensed annual emissions.

1. BACT Findings

   a. Particulate Matter (PM and PM_{10})

   Particulate matter (PM) emissions from fuel combustion are formed from incomplete combustion of fuel and non-combustible material in the fuel. Potential PM controls for biomass boilers consist of add-on controls, combustion of clean fuel, good combustion practices, or a combination of options. Potential add-on controls for biomass boilers include electrostatic precipitators (ESPs), wet scrubbers, baghouses (fabric filters), and multi-clones.

   Baghouses and fabric filters are technically infeasible due to the risk of fires from smoldering particulates that may be carried over from other control equipment. Due to the relatively small size of the boiler, the additional costs associated with an ESP make that option financially infeasible. Additionally, a wet scrubber is not feasible based on significant environmental impacts due to water management, along with not being justifiable for economic and energy considerations.

   The proposed biomass-fired Boiler #2 will have a single multi-clone to control PM emissions from the unit. Multi-clones are identified most often for PM control for biomass boilers of this type and size. BACT for PM emissions from Boiler #2 shall be the use of a multi-clone, operation of the multi-clone whenever Boiler #2 is operating, good combustion practices, a fuel limit of 18,000 tons of biomass per year (50% moisture content with a heat content of 4,500 Btu/lb), or equivalent, for Boilers #1 and #2 combined, and an emission limit of 2.9 lb/hr for both PM and PM_{10}.

   b. Sulfur Dioxide (SO_2)

   Sulfur dioxide is formed from the combustion of sulfur present in the fuel. Control options identified for SO_2 emissions include the use of fuel with a low sulfur content, such as biomass, use of fuels that produce alkali ash which absorbs SO_2 (use of biomass may have some absorbing potential), sorbent injection, and SO_2 scrubbing technologies, including flue gas desulfurization or packed-bed scrubbers. All the potential add-on controls are technically and financially infeasible for a boiler of this size and fuel type due to the increased energy use from fan and pump electrical requirements as well as additional environmental impacts such as chemical transport to the site and storage on-site, potential chemical release risks, and waste water discharge and solid waste disposal. BACT for sulfur dioxide emissions from Boiler #2 shall be the use of biomass as a fuel and an emission limit of 0.2 lb/hr.

c. Nitrogen Oxides (NO_x), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC)

Emissions of NO_x, CO, and VOC from biomass-fired boilers of this size are typically controlled through proper operation and maintenance per the manufacturer's emission-related instructions. The boiler will also use an oxygen trim system to optimize combustion for these parameters. Additional control measures for these pollutants are not economically feasible for a boiler of this size. BACT for NO_x, CO, and VOC emissions for Boiler #2 shall be proper operation and maintenance of the unit and emission limits of 2.1 lb/hr of NO_x, 5.7 lb/hr of CO, and 0.2 lb/hr of VOC.

d. Visible Emissions

Visible emissions from Boiler #2 shall not exceed 20% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time the unit operator may elect to comply with the following work practice requirements in lieu of this visible emission standard:

- Hancock shall maintain a log (written or electronic) of the date, time, and duration of all startups, shutdowns, and malfunctions of Boiler #2 and its associated air pollution control equipment;
- Hancock shall develop and implement a written startup and shutdown plan for Boiler #2; and
- Boiler #2, including any associated air pollution control equipment, shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

For the purposes of this license, startup and shutdown of Boiler #2 are defined as follows:

A *startup period* is defined as a period of time commencing when fuel is first fired in the boiler and ending when the combustion chamber exceeds a temperature established by the facility based on operation of the unit once installed. Hancock shall keep appropriate records of startup temperature once established. The total duration of this period shall not exceed four hours.

A *shutdown period* is defined by a period of time commencing when fuel is no longer being fed into the boiler and ending when ash is no longer exiting the ash handling system. The total duration of this period shall not exceed four hours.

2. Emission Limits

The BACT emission limits for Boiler #2 were based on the following:

PM/PM_{10}	–	0.30 lb/MMBtu based on 06-096 C.M.R. ch. 103, § 2.B.(4)(a)
SO_2	–	0.025 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
NO_x	–	0.22 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
CO	–	0.60 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
VOC	–	0.017 lb/MMBtu based on AP-42, Table 1.6-3, dated 9/03
Visible Emissions	–	06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Boiler #2 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #2	PM	0.30

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2	2.9	2.9	0.2	2.1	5.7	0.2

Visible emissions from Boiler #2 shall not exceed 20% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time the unit operator may elect to comply with the following work practice requirements in lieu of this visible emission standard:

- Hancock shall maintain a log (written or electronic) of the date, time, and duration of all startups, shutdowns, and malfunctions of Boiler #2 and its associated air pollution control equipment;
- Hancock shall develop and implement a written startup and shutdown plan for Boiler #2; and
- Boiler #2, including any associated air pollution control equipment, shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

For the purposes of this license, startup and shutdown of Boiler #2 are defined as follows:

A *startup period* is defined as a period of time commencing when fuel is first fired in the boiler and ending when the combustion chamber exceeds a temperature established by the facility based on operation of the unit once installed. Hancock shall keep appropriate records of startup temperature once established. The total duration of this period shall not exceed four hours.

A *shutdown period* is defined by a period of time commencing when fuel is no longer being fed into the boiler and ending when ash is no longer exiting the ash handling system. The total duration of this period shall not exceed four hours.

Hancock shall be limited to 18,000 tons/year of biomass for Boilers #1 and #2 combined on a calendar year total basis. Hancock shall use the following formula, when necessary, to convert fuel use records to 50% moisture:

Tons Wood at 50% = (Tons Wood at M%) x [(100-M)/50]

Where M = the actual moisture content of the wood, as fired

Hancock shall continuously operate the multi-clone on Boiler #2 while the unit is in operation. Hancock shall keep a log of all inspections and maintenance performed on the multi-clone.

3. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type of fuel used.

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

Due to its size, Boiler #2 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

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

Boiler #2 is subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ. The unit is considered a new biomass-fired boiler rated less than 10 MMBtu/hr. [40 C.F.R. §§63.11193 and 63.11195]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJJ requirements is listed below. Notification forms and additional rule information can be found on the following website: https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source.

a. Compliance Dates, Notifications, and Work Practice Requirements

(1) Initial Notification of Compliance

An Initial Notification submittal to EPA is due within 120 days after startup of Boiler #2. [40 C.F.R. §§ 63.11196(c) and 63.11225(a)(2)]

(2) Boiler Tune-Up Program

(i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

(ii) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. As a boiler with an oxygen trim system which maintains an optimum air-to-fuel ratio, Boiler #2 shall be subject to a tune-up frequency of once every five years. [40 C.F.R. § 63.11223(a) and 40 C.F.R. Part 63, Subpart JJJJJJ, Table 2]

(iii)The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 72 months from the previous inspection for boilers with oxygen trim systems. [40 C.F.R. § 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 72 months from the previous inspection for boilers with oxygen trim systems. [40 C.F.R. § 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]

5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]

(iv) Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:

1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
2. A description of any corrective actions taken as part of the tune-up of the boiler; and
3. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

(3) Compliance Report

A compliance report shall be prepared by March 1st every five years which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

(i) Company name and address;
(ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
(iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;

(iv) The following certifications, as applicable:

1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
2. "No secondary materials that are solid waste were combusted in any affected unit."
3. "This facility complies with the requirement in 40 C.F.R. §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 63.11225(c)]:

(1) Copies of notifications and reports with supporting compliance documentation;
(2) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
(3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
(4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. [40 C.F.R. § 63.11225(a)(4)(vi)]

D. Emission Statements

The following language is included to clarify the requirements of *Emission Statements*, 06-096 C.M.R. ch. 137:

Hancock is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137, because the facility's licensed annual emissions for VOC are above the threshold in the rule. Hancock shall maintain the following records in order to comply with this rule:

1. The amount of wood fired (at 50% moisture) in Boilers #1 and #2 on a monthly basis;
2. Kiln throughput on a monthly basis; and
3. Hours of operation for each emission unit on a monthly basis.

In reporting year 2020 and every third year thereafter, Hancock shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. Hancock shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

E. Annual Emissions

Hancock shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on a fuel use limit of 18,000 tons/year of biomass for Boilers #1 and #2 combined and a throughput limit of 29.0 MMBF/year of eastern white pine in the six lumber drying kilns:

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

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boilers #1 and #2	24.3	24.3	2.0	17.8	48.6	1.4
Kilns	---	---	---	---	---	32.8
Total TPY	**24.3**	**24.3**	**2.0**	**17.8**	**48.6**	**34.2**

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
PM_{10}	25
SO_2	50
NO_x	50
CO	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.

ORDER

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-932-71-E-A subject to the conditions found in Air Emission License A-932-71-C-R, in amendment A-932-71-D-M, and the following conditions.

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 (16) of Air Emission License A-932-71-C-R (March 16, 2017):

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

A. Fuel

1. Boilers #1 and #2 are licensed to fire biomass. [06-096 C.M.R. ch. 115, BPT]

2. Total fuel use for Boilers #1 and #2 combined shall not exceed 18,000 tons/year of biomass, based on a calendar year total and a moisture content of 50%, by weight. Hancock shall use the following formula, when necessary, to convert fuel use records to 50% moisture:

   Tons Wood at 50% = (Tons Wood at M%) x [(100-M)/50]

   Where M = the actual moisture content of the wood, as fired

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

3. Compliance shall be demonstrated by fuel records showing the quantity, type, and moisture content of the fuel used. Records of annual fuel use shall be kept on a monthly and calendar year total basis. [06-096 C.M.R. ch. 115, BPT]

B. Control Equipment

1. Hancock shall continuously operate fly ash reinjection on Boiler #1 whenever Boiler #1 is in operation. [06-096 C.M.R. ch. 115, BPT]
2. Hancock shall continuously operate the multi-clone on Boiler #2 while the unit is in operation. Hancock shall keep a log of all inspections and maintenance performed on the multi-clone. [06-096 C.M.R. ch. 115, BACT]

C. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Boilers #1 and #2 [each]	PM	0.30	06-096 C.M.R. ch. 103, § 2.B.(4)(a)

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

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	3.8	3.8	0.3	2.8	7.6	0.2
Boiler #2	2.9	2.9	0.2	2.1	5.7	0.2

E. Visible Emissions

1. Visible emissions from Boiler #1 shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period, during which time visible emissions shall not exceed 50% opacity. [06-096 C.M.R. ch. 115, BPT]

2. Visible emissions from Boiler #2 shall not exceed 20% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time the unit operator may elect to comply with the following work practice requirements in lieu of this visible emission standard:

   a. Hancock shall maintain a log (written or electronic) of the date, time, and duration of all startups, shutdowns, and malfunctions of Boiler #2 and its associated air pollution control equipment;
   b. Hancock shall develop and implement a written startup and shutdown plan; and

c. Boiler #2, including any associated air pollution control equipment, shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

For the purposes of this license, startup and shutdown of Boiler #2 are defined as follows:

A *startup period* is defined as a period of time commencing when fuel is first fired in the boiler and ending when the combustion chamber exceeds a temperature established by the facility based on operation of the unit once installed. Hancock shall keep appropriate records of startup temperature once established. The total duration of this period shall not exceed four hours.

A *shutdown period* is defined by a period of time commencing when fuel is no longer being fed into the boiler and ending when ash is no longer exiting the ash handling system. The total duration of this period shall not exceed four hours.

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

F. Hancock shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boiler #1 including, but not limited to, the following:

Hancock shall record and maintain records of the amount of fuel combusted in Boiler #1 on a monthly basis. [40 C.F.R. § 60.48c(g)]

G. Hancock shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #1 and #2 including, but not limited to, the following [incorporated under 06-096 C.M.R. ch. 115, BPT]:

1. For Boiler #2, an Initial Notification submittal to EPA is due within 120 days after startup of Boiler #2. [40 C.F.R. §§ 63.11196(c) and 63.11225(a)(2)]

2. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]

   a. Tune-up Frequency

   Tune-ups shall be conducted on Boiler #1 on a two-year interval, and tune-ups shall be conducted on Boiler #2 on a five-year interval. [40 C.F.R. § 63.11223(a) and 40 C.F.R. Part 63, Subpart JJJJJJ, Table 2]

b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

(1) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection on Boiler #1 until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. Delay of the burner inspection on Boiler #2 until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for boilers with oxygen trim systems. [40 C.F.R. § 63.11223(b)(1)]

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F..R § 63.11223(b)(2)]

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection on Boiler #1 until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. Delay of the inspection on Boiler #2 until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for boilers with oxygen trim systems. [40 C.F.R. § 63.11223(b)(3)]

(4) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]

(5) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]

(6) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]

c. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information [40 C.F.R. § 63.11223(b)(6)]:

(1) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;

(2) A description of any corrective actions taken as part of the tune-up of the boiler; and

(3) The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

3. Compliance Report

A compliance report shall be prepared by March 1st biennially for Boiler #1 and every five years for Boiler #2 which covers the previous two or five calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in 40 C.F.R. §§ 63.11225(b)(1) and (2), including the following [40 C.F.R. § 63.11225(b)]:

a. Company name and address;
b. A statement of whether the source has complied with all the relevant requirements of this Subpart;
c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
d. The following certifications, as applicable:

(1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
(2) "No secondary materials that are solid waste were combusted in any affected unit."
(3) "This facility complies with the requirement in 40 C.F.R. §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

4. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 63.11225(c)]:

a. Copies of notifications and reports with supporting compliance documentation;
b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

The following shall replace Condition (20) of Air Emission License A-932-71-C-R (March 16, 2017):

(20) **Annual Emission Statement**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Hancock shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

B. Hancock shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

1. The amount of wood fired (at 50% moisture) in Boilers #1 and #2 on a monthly basis;
2. Kiln throughput on a monthly basis; and
3. Hours of operation for each emission unit on a monthly basis.

[06-096 C.M.R. ch. 137]

C. In reporting year 2020 and every third year thereafter, Hancock shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Hancock shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

DONE AND DATED IN AUGUSTA, MAINE THIS 10 DAY OF October , 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Core for
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-932-71-C-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 2, 2018
Date of application acceptance: July 20, 2018

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

Filed
OCT 10 2018
State of Maine
Board of Environmental Protection