



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

DEPARTMENT ORDER

Kerry Inc.  
Cumberland County  
Portland, Maine  
A-901-71-F-R/M

Departmental  
Findings of Fact and Order  
Air Emission License  
Renewal and Amendment

FINDINGS OF FACT

After review of the air emission license amendment and renewal 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

Kerry Inc. (Kerry) has applied to renew their Air Emission License for the operation of emission sources associated with their coffee roasting and processing facility. Kerry has also requested a minor revision to their license in order to increase the capacities of Boilers #1 and #2.

The equipment addressed in this license is located at 40 Quarry Road, Portland, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Boiler #1	5.1*	5,000 scf/hr	Natural gas	2004	2004	1
Boiler #2	5.1*	5,000 scf/hr	Natural gas	2004	2004	2

\* previously rated at 4.5 MMBtu/hr

Coffee Roasters

Equipment	Max. Capacity	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Roaster #1	1.6 MMBtu/hr 1.232 tons/hr	1,568 scf/hr	Natural gas	2004	2005	3
Roaster #2	1.6 MMBtu/hr 1.232 tons/hr	1,568 scf/hr	Natural gas	2004	2005	3
Catox #1 Burner	2.15 MMBtu/hr	2,108 scf/hr	Natural gas	2014	2014	3

Equipment	Max. Capacity	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Catox #2 Burner	2.15 MMBtu/hr	2,108 scf/hr	Natural gas	2014	2014	3
Thermox #1 Burner	3.0 MMBtu/hr	2,941 scf/hr	Natural gas	2014	2014	3
Thermox #2 Burner	3.0 MMBtu/hr	2,941 scf/hr	Natural gas	2014	2014	3

Note: Maximum firing rates are based on a natural gas heating value of 1,020 Btu/scf.

C. Definitions

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 date this license was issued.

Kerry has applied to renew currently licensed emission units as well as modify their licensed emission units as addressed in Section I(A) above. This amendment will increase licensed emissions by less than 4 ton/year for each single pollutant not including greenhouse gases (GHG) and less than 8 ton/year for all pollutants combined not including GHG. Therefore, this license renewal and amendment is considered to be a renewal with a minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115 (Chapter 115).

E. Facility Classification

The facility is licensed as follows:

- As a natural minor source of criteria pollutants, 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.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1 and #2

Kerry operates Boilers #1 and #2 for heat. Boilers #1 and #2 are natural gas-fired boilers, each rated at 5.1 MMBtu/hr. The capacities of Boilers #1 and #2 are being increased from 4.5 MMBtu/hr to 5.1 MMBtu/hr. Kerry proposes to replace each burner and add a heat exchange system to each boiler. Boilers #1 and #2 were both manufactured and installed in 2004, and each exhausts through its own dedicated stack, Stacks #1 and #2, respectively.

1. BPT Findings

The BPT emission limits for Boilers #1 and #2 were based on the following:

Natural Gas

PM/PM<sub>10</sub>/PM<sub>2.5</sub> – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT  
SO<sub>2</sub> – 0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98  
NO<sub>x</sub> – 100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98  
CO – 84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98  
VOC – 5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98  
Visible – 06-096 C.M.R. ch. 101, § 4(A)(3)  
Emissions

The BPT emission limits for Boilers #1 and #2 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #1	PM	0.05
Boiler #2	PM	0.05

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.26	0.26	0.26	0.003	0.50	0.42	0.03
Boiler #2	0.26	0.26	0.26	0.003	0.50	0.42	0.03

2. Visible Emissions

Visible emissions from Stacks #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis.

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

Due to their size, the Boilers #1 and #2 are 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]

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

Boilers #1 and #2 are not 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 JJJJJ. Boilers #1 and #2 are natural gas-fired boilers, and gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJ. [40 C.F.R. §§ 63.11193 and 63.11195]

C. Roasters #1 and #2

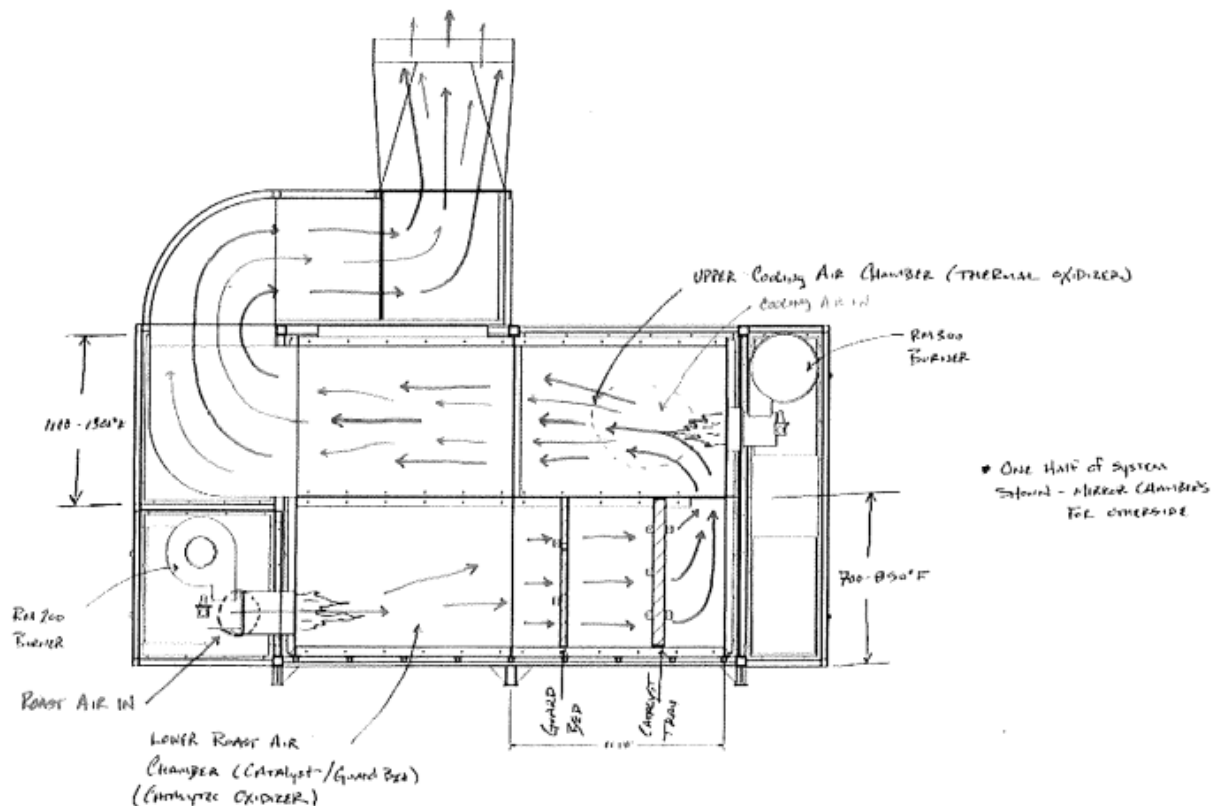
Kerry operates Roasters #1 and #2 to roast coffee. Each roaster has a maximum heat input of 1.6 MMBtu/hr and a maximum process rate of 1.232 ton of coffee beans per hour.

The roasting process creates an organic smoke from the heating of the beans. This smoke is a complex mixture of particulate matter (PM), volatile organic compounds (VOC), and condensable organic aerosols. Each roaster generates two distinct emissions streams during different stages of the roasting cycle. The “roast air” stream contains relatively low levels of particulate matter and smoke over a 10-15 minute period as the beans are heated. The “cooling air” stream contains higher levels of smoke and PM for a brief period of about two minutes at the end of each roast. The entire roast cycle takes about 20 minutes.

Chaff is the thin outer covering of the coffee bean. This chaff loosens and comes off when the coffee beans are roasted above 350 °F, which can lead to significant amounts of PM emissions. Additionally, VOC in the roasting coffee beans start to volatilize and are emitted.

1. Control Equipment

Kerry uses a combination catalytic and thermal oxidizer system with pretreatment by cyclones to control emissions of PM and VOC from the coffee roasters. Roaster #1 vents first to its cyclone, then to Catox #1 Burner and then to Thermox #1 Burner. Roaster #2 vents first to its cyclone and, then to Catox #2 Burner and then to Thermox #2 Burner. Emissions from the two roasters are then combined and exit through Stack #3.



The roast air, containing relatively low levels of smoke, passes through a cyclone to remove chaff and other large particles and then through the catalytic oxidizer (Catox #1 or #2 Burner) section of the control unit. The treated exhaust from the catalytic oxidizer chamber passes through the thermal oxidizer chamber (Thermox #1 or #2 Burner) to preheat it in preparation for operation during the cooling cycle.

The thermal oxidizer is designed to control the brief surge of smoke during the cooling cycle when the hot beans are flushed with cool air. When there is approximately one minute remaining in the roast, the cooling air fan begins drawing cool ambient air through the cooling bin, and the thermal oxidizer burners begin to fire. When the roast is complete, the hot beans drop into the cooling bin. Cool air flows upwards through the beans and is drawn through a cyclone, and then through the thermal oxidizer. This cooling air contains relatively high levels of smoke for a short duration, which is ideal for treatment in the thermal oxidizer.

The roasters typically preheat to approximately 420 °F, which also begins to preheat the catalytic oxidizer. The temperature in the roaster then typically drops to about 150-160 °F as the cool beans are dropped into the roaster. The catalytic oxidizer fires when the roast temperature is above 250 °F and remains on until the roast is complete, or the catalytic oxidizer temperature exceeds 600 °F.

When the roast temperature reaches 410 °F, the thermal oxidizer burner ignites to begin preheating. Once the roast reaches final temperature which varies by recipe, the beans drop into the cooling bin. The cooling bin is purged with cool air, which is further cooled by the addition of quench water, to rapidly cool the beans. The cooling air stream contains a relatively high level of smoke for a brief duration until the beans cool below the smoke point. The cooling air is treated by the thermal oxidizer, which fires for about two minutes after the roasted beans drop into the cooling bin.

Kerry has worked with the control system's manufacturer to minimize visible emissions and optimize the system control logic to minimize natural gas usage. A certified visible emissions test was performed on June 20, 2014, to demonstrate Kerry's ability to control visible emissions to within license limits based on this control logic.

## 2. BPT Findings

Due to the variability in the process and the difficulty of verifying actual emissions, a conservative control efficiency for the control equipment of 90% has been assumed. The emissions factors stated below are assumed to represent worst-case emissions.

- a. The BPT emission limits for each of the Coffee Roasters (including the Catox and Thermox Burners) were based on the following:

PM/PM <sub>10</sub> /PM <sub>2.5</sub>	–	0.12 lb/ton based on AP-42 Table 9.13.2-1 dated 9/95
SO <sub>2</sub>	–	0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
NO <sub>x</sub>	–	0.085 lb/MMBtu based on manufacturer data for the catalytic oxidizer <sup>1</sup>
CO	–	0.55 lb/ton based on AP-42 Table 9.13.2-2 dated 9/95
VOC	–	0.047 lb/ton based on AP-42 Table 9.13.2-2 dated 9/95
Opacity	–	06-096 CMR 101, §§ 4(B)(4) and 4(D)(1)

The BPT emission limits for the coffee roasters are the following:

Unit	Pollutant	lb/ton
Roaster #1	PM	0.12
Roaster #2	PM	0.12

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Roaster #1	0.15	0.15	0.15	0.004	0.57	0.68	0.06
Roaster #2	0.15	0.15	0.15	0.004	0.57	0.68	0.06

<sup>1</sup> Based on manufacturer rating of 70 ppm @ 3% O<sub>2</sub> dry converted using 40 C.F.R. Part 60, Appendix A, Method 19, Equation. 19-1.

- b. Visible emissions from Stack #3 shall not exceed 20% opacity on a six-minute block average basis.
- c. Kerry shall operate the cyclones at all times the associated coffee roaster is operating. The catalytic and thermal oxidizer systems shall be operated, per the established control system logic, at all times the associated coffee roaster is operating. [06-096 CMR 115, BPT]
- d. Kerry shall monitor the temperature in each catalytic oxidizer and thermal oxidizer section of the control unit. During the roasting period, the catalytic oxidizer burner shall fire when the roaster temperature is above 250 °F and remain on until the roast is complete or the catalytic oxidizer temperature reaches a minimum temperature of 600 °F. Prior to the cooling period, the thermal oxidizer burner shall fire when the roaster temperature reaches 410 °F and remain on for two minutes after the beans drop into the cooling bin. Kerry shall continuously monitor the temperature in each chamber while in operation and record the temperature of the catalytic oxidizer chamber during the roasting period and the temperature of the thermal oxidizer during a cooling period at least once per shift. [06-096 CMR 115, BPT]
- e. Kerry shall continuously monitor the pressure drop across each catalyst bed while in operation and record the pressure drop across each catalyst bed at least once per shift. If the pressure rises to 0.8"WC or greater, Kerry shall shut down the roasters, perform a visual inspection of the control equipment, and clean the catalyst beds if necessary per the manufacturer's recommendation. [06-096 CMR 115, BPT]
- f. Kerry shall perform a visual inspection and cleaning of the cyclones and oxidizers, including the catalyst bed, at least once every three years per the manufacturer's recommendation. Kerry shall maintain records of the inspections as well as any maintenance (routine or otherwise) performed on the control equipment. [06-096 CMR 115, BPT]

D. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on operating Boilers #1 and #2 and Roasters #1 and #2 for 8,760 hrs/yr, each.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boiler #1	1.1	1.1	1.1	0.0	2.2	1.8	0.1
Boiler #2	1.1	1.1	1.1	0.0	2.2	1.8	0.1
Roaster #1	0.6	0.6	0.6	0.0	2.5	3.0	0.3
Roaster #2	0.6	0.6	0.6	0.0	2.5	3.0	0.3
<b>Total TPY</b>	<b>3.4</b>	<b>3.4</b>	<b>3.4</b>	<b>0.1</b>	<b>9.4</b>	<b>9.6</b>	<b>0.8</b>

Pollutant	Tons/year
Single HAP	7.9
Total HAP	19.9

### 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 <sub>10</sub>	25
PM <sub>2.5</sub>	15
SO <sub>2</sub>	50
NO <sub>x</sub>	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.

This determination is based on information provided by the applicant regarding licensed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require Kerry to submit additional information and may require an ambient air quality impact analysis at that time.



**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 A-901-71-F-R/M subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

**STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to beginning actual construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]

- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
  - A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - 2. Pursuant to any other requirement of this license to perform stack testing.
  - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. Submit a written report to the Department within thirty (30) days from date of test completion. [06-096 C.M.R. ch. 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of the written test report by the Department, or another alternative timeframe approved by the Department, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
  - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- [06-096 C.M.R. ch. 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- [06-096 C.M.R. ch. 115]

- (16) The licensee shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605). [06-096 C.M.R. ch. 115]

#### SPECIFIC CONDITIONS

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

- A. Boilers #1 and #2 are licensed to fire natural gas. [06-096 C.M.R. ch. 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #2	PM	0.05	06-096 C.M.R. ch. 115, BPT

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

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.26	0.26	0.26	0.003	0.50	0.42	0.03
Boiler #2	0.26	0.26	0.26	0.003	0.50	0.42	0.03

- D. Visible emissions from Stacks #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]

(18) **Roasters #1 and #2**

- A. Roasters #1 and #2, Catox #1 and #2 Burners, and Thermox #1 and #2 Burners are licensed to fire natural gas. [06-096 C.M.R. ch. 115, BPT]
- B. Emissions from the Coffee Roasters (including the Catox and Thermox Burners) shall not exceed the following:

Emission Unit	Pollutant	lb/ton	Origin and Authority
Roaster #1	PM	0.12	06-096 C.M.R. ch. 115, BPT
Roaster #2	PM	0.12	06-096 C.M.R. ch. 115, BPT

- C. Emissions from the Coffee Roasters (including the Catox and Thermox Burners) shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Roaster #1	0.15	0.15	0.15	0.004	0.57	0.68	0.06

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Roaster #2	0.15	0.15	0.15	0.004	0.57	0.68	0.06

- D. Visible emissions from Stack #3 shall not exceed 20% opacity on a six-minute block average basis. [06-096 CMR 101, §§ 4(B)(4) and 4(D)(1)]
- E. Kerry shall operate the cyclones at all times the associated coffee roaster is operating. The catalytic and thermal oxidizer systems shall be operated, per the established control system logic, at all times the associated coffee roaster is operating. [06-096 CMR 115, BPT]
- F. Kerry shall monitor the temperature in each catalytic oxidizer and thermal oxidizer section of the control unit. During the roasting period, the catalytic oxidizer burner shall fire when the roaster temperature is above 250 °F and remain on until the roast is complete, or the catalytic oxidizer temperature reaches a minimum temperature of 600 °F. Prior to the cooling period, the thermal oxidizer burner shall fire when the roaster temperature reaches 410 °F and remain on for two (2) minutes after the beans drop into the cooling bin. Kerry shall continuously monitor the temperature in each chamber while in operation and record the temperature of the catalytic oxidizer chamber during the roasting period and the temperature of the thermal oxidizer during a cooling period at least once per shift. [06-096 CMR 115, BPT]
- G. Kerry shall continuously monitor the pressure drop across each catalyst bed while in operation and record the pressure drop across each catalyst bed at least once per shift. If the pressure rises to 0.8"WC or greater, Kerry shall shut down the roasters, perform a visual inspection of the control equipment, and clean the catalyst beds if necessary per the manufacturer's recommendation. [06-096 CMR 115, BPT]
- H. Kerry shall perform a visual inspection and cleaning of the cyclones and oxidizers, including the catalyst bed, at least once every three years per the manufacturer's recommendation. Kerry shall maintain records of the inspections as well as any maintenance (routine or otherwise) performed on the control equipment. [06-096 CMR 115, BPT]

Kerry Inc.  
Cumberland County  
Portland, Maine  
A-901-71-F-R/M

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**Departmental  
Findings of Fact and Order  
Air Emission License  
Renewal and Amendment**

- (19) If the Department determines that any parameter value pertaining to construction and operation of the emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, Kerry may be required to submit additional information. Upon written request from the Department, Kerry shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter.  
[06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 25<sup>th</sup> DAY OF OCTOBER, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for  
MELANIE LOYZIM, COMMISSIONER

**The term of this license shall be ten (10) years from the signature date above.**

[Note: If a renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S. § 10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 31, 2024  
Date of application acceptance: August 1, 2024

Date filed with the Board of Environmental Protection:

This Order prepared by Kendra Nash, Bureau of Air Quality.

