



DEPARTMENT ORDER

**Tambrands Inc.
Androscoggin County
Auburn, Maine
A-44-71-U-A**

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

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

Tambrands Inc. (Tambrands), a Proctor & Gamble Company, was issued Air Emission License A-44-71-T-R/M on September 25, 2017, for the operation of emission sources associated with its paper products manufacturing facility.

Tambrands has requested an amendment to their license to install a new natural gas-fired boiler.

The equipment addressed in this license amendment is located at 2879 Hotel Road, Auburn, Maine.

B. Emission Equipment

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

External Combustion Units

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
Boiler #6	8.0	7,843	Natural Gas, Negligible Sulfur	2018	2018	3
Hot Water Heater #1*	0.25	245	Natural Gas, Negligible Sulfur	2018	2018	3

* Unit is rated below minimum licensing thresholds via 06-096 C.M.R. ch. 115 and is only being listed for completeness purposes. It is not addressed further in this license amendment.

C. Application Classification

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

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	2.7	2.7	--	100
PM ₁₀	2.7	2.7	--	100
SO ₂	21.9	2.7	--	100
NO _x	8.9	8.9	--	100
CO	2.3	2.3	--	100
VOC	24.2	24.2	--	50

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

D. Facility Classification

With the annual fuel limit on the boilers and the operating hours restriction on the emergency generators, 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 #6

Tambrands has requested to install Boiler #6 for facility steam and heat. The boiler is rated at 8.0 MMBtu/hr and fires natural gas. The boiler is scheduled to be installed in 2018 and exhaust through its own stack.

Boiler #6 is designed with a modulating premix burner (oxygen trim system) which will be used to automatically control and adjust the air-to-fuel ratio to optimize efficiency and subsequently reduce emissions. The burner, combined with EX spiral tube technology and ALUFER® firetube design, allows Boiler #6 to achieve an overall efficiency of 94%.

1. BACT Findings

The BACT emission limits for the boiler were based on the following:

Natural Gas

PM/PM ₁₀	0.05 lb/MMBtu 06-096 C.M.R. ch. 115, BACT
SO ₂	0.6 lb/MMscf AP-42 Table 1.4-2, dated 7/98
NO _x	100 lb/MMscf AP-42 Table 1.4-1, dated 7/98
CO	84 lb/MMscf AP-42 Table 1.4-1, dated 7/98
VOC	5.5 lb/MMscf AP-42 Table 1.4-2, dated 7/98
Visible Emissions	06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the boiler are the following:

Unit	Pollutant	lb/MMBtu
Boiler #6	PM	0.05

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #6 Natural gas	0.40	0.40	Negligible	0.78	0.66	0.04

Visible Emissions

Visible emissions from Stack #3, serving Boiler #6, shall not exceed 10% opacity on a six-minute block average basis.

Fuel Use Limit

Tambrands has requested to keep the same natural gas heat input limit of 43,500 MMBtu/yr on a 12-month rolling total basis for all natural gas boilers.

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis.

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

Due to its size the boiler 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]

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

Boiler #6 is 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. The unit is considered a gas-fired unit and is therefore exempt. [40 C.F.R. § 63.11195(e)]

C. Annual Emissions

This license amendment does not change Tambrands licensed total annual emissions.

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-44-71-U-A subject to the conditions found in Air Emission License A-44-71-T-R/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 Condition replaces Condition (16) listed in Air Emission License A-44-71-T-R/M.

(16) Boilers #1-#4 and #6

A. Fuel

1. Boilers #3, #4, and #6 shall only fire natural gas. [06-096 C.M.R. ch. 115, BPT and BACT]
2. Total fuel use for the boilers shall not exceed an input of 43,500 MMBtu/yr on a 12-month rolling total basis, assuming the following heating values for natural gas and #4 fuel oil:

Fuel	Heating Value
#4 Fuel Oil	145 MMBtu/ 1000 gal
Natural Gas	1,020 MMBtu/MMscf

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

3. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain #4 fuel oil with a maximum sulfur content that exceeds 0. 5% by weight. [06-096 C.M.R. ch. 115, BPT]

4. Compliance with the fuel requirements shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.12	06-096 C.M.R. ch. 103 § (2)(B)(1)(a)
Boiler #2	PM	0.12	06-096 C.M.R. ch. 103 § (2)(B)(1)(a)
Boiler #3	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #4	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #6	PM	0.05	06-096 C.M.R. ch. 115, BACT

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT (Boilers #1-#4) and BACT (Boiler #6)]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1 #4 fuel oil	0.76	0.76	6.35	1.97	0.21	0.03
Boiler #2 #4 fuel oil	0.76	0.76	6.35	1.97	0.21	0.03
Boiler #3 natural gas	0.32	0.32	NA	0.61	0.51	0.03
Boiler #4 natural gas	0.32	0.32	NA	0.61	0.51	0.03
Boiler #6 natural gas	0.40	0.40	NA	0.78	0.66	0.04

D. Visible Emissions

1. Visible emissions from Stack #1, serving Boilers #1 and #2, shall not exceed 30% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
2. Visible emissions from Stack #2, serving Boilers #3 and #4, shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
3. Visible emissions from Stack #3, serving Boiler #6, shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

E. Boiler MACT (40 C.F.R. Part 63, Subpart JJJJJ) Requirements for Boilers #1 and #2 [incorporated under 06-096 C.M.R. ch. 115, BPT]

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

- a. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. Because Boilers #1 and #2 are existing oil-fired boilers rated higher than 5 MMBtu/hr, they are required to be tuned up every two years. [40 C.F.R. § 63.11223(a) and 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 until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [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 36 months from the previous inspection. [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.

2. Compliance Report

A compliance report shall be prepared by March 1st biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and 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."

3. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ 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)]

DONE AND DATED IN AUGUSTA, MAINE THIS 11 DAY OF September, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Mercer
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-44-71-T-R/M.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 08/23/2018

Date of application acceptance: 08/24/2018

Date filed with the Board of Environmental Protection:

This Order prepared by Colby Fortier-Brown, Bureau of Air Quality.

