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

DEPARTMENT ORDER

Barber Foods, LLC **Cumberland County** **Portland, Maine** **A-569-71-O-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

Barber Foods, LLC (Barber Foods) was issued Air Emission License A-569-71-M-R on October 31, 2016, for the operation of emission sources associated with their chicken processing equipment located at their facility. The license was subsequently amended on April 5, 2019 (A-569-71-N-M) to add one gas-fired unit heater, correct a heat input rating on a licensed piece of equipment, and remove the annual fuel limit from the license.

The equipment addressed in this license amendment is located at 54 St. John Street, Portland, Maine.

Barber Foods has requested an amendment to their license in order to add an air makeup unit and to remove Air Handling Unit #2.

B. Emission Equipment

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

Fuel Burning Equipment

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
AMU-4 *	2.72	2,620 scf/hr	Natural Gas	2025	2025	N/A
*AHU #2 **	*3.11*	*3,020 scf/hr*	*Natural Gas*	*1991*	*1991*	*N/A*

* New to the license
** Removed from the license

C. 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.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emissions" 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 Emissions Levels
PM	10.5	9.5	-1.0	100
PM_{10}	10.5	9.5	-1.0	100
$PM_{2.5}$	-	9.5	-*	100
SO_2	0.1	0.1	-	100
NO_x	20.4	20.3	-0.1	100
CO	17.1	17.0	-0.1	100
VOC	6.7	6.7	-	50 **

* $PM_{2.5}$ emissions were not been taken addressed in previous licenses, so the comparison of current to future license totals is not included for this pollutant.

** Barber Foods is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emission level for VOC is 50 tpy.

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

D. 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 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. AMU-4

Barber Foods is proposing to install and add to their air emission license a 2.72 MMBtu/hr air makeup unit (AMU-4) firing natural gas. AMU-4 will be used to increase air supply to the engine room. The unit will vent fugitively on the roof.

1. BACT Findings

Barber Foods submitted a BACT analysis for control of emissions from AMU-4.

a. Particulate Matter (PM, PM_{10}, $PM_{2.5}$)
Barber Foods has proposed to burn only low-ash content fuel, natural gas, in AMU-4. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM_{10}/$PM_{2.5}$ emissions from AMU-4 is the use of good combustion practices and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO_2)
Barber Foods has proposed to fire only natural gas. The use of this fuel results in minimal emissions of SO_2, and additional add-on pollution controls are not economically feasible.

BACT for SO_2 emissions from AMU-4 is the use of natural gas and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)
Barber Foods considered low-NO_x burners, Flue Gas Recirculation (FGR), and use of good combustion practices to control NO_x.

The use of low-NO_x burners and FGR would require changes to the structure of the combustion system. AMU-4 is a modular unit, so the changes would be difficult to install due to the dimensions of the unit. Additionally, lowering the flame temperature for such a small unit could affect its overall heating performance, making the use of low-NO_x burners technically infeasible.

BACT for NO_x emissions from AMU-4 is the use of good combustion practices and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)
Barber Foods considered several control strategies for the control of CO and VOC including oxidation catalysts and good combustion practices.

The installation of oxidation catalysts would also require additional space, which is limited in the compact design of the unit. The oxidation catalysts also require high operating temperatures (600 °F to 650 °F), whereas AMU-4 only has a temperature rise of 70 °F. In order to increase the exhaust temperature to a range where the oxidation catalyst would be effective, additional fuel consumption would be needed. Both initial and ongoing operational costs associated with this control make this control strategy economically infeasible.

BACT for CO and VOC emissions from AMU-4 is the use of good combustion practices and the emission limits listed in the tables below.

e. Emission Limits
The BACT emission limits for AMU-4 were based on the following:

Natural Gas

$PM/PM_{10}/PM_{2.5}$	–	0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
SO_2	–	0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
NO_x	–	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 Emissions	–	06-096 C.M.R. ch. 101

The BACT emission limits for AMU-4 are the following:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
AMU-4	0.14	0.14	0.14	-	0.26	0.22	0.01

2. Visible Emissions

Visible emissions from the air makeup unit shall 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

Since AMU-4 does not heat water, it 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 JJJJJJ

   Since AMU-4 does not heat water, it 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 JJJJJJ.

C. 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 the fuel burning equipment operating 8,760 hours per year and the fryers operating 16 hours per day, 5 days per week, and 52 weeks per year.

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_{10}	$PM_{2.5}$	SO_2	NO_x	CO	VOC
Boilers #1, #2, #3, #4, and #5	1.39	1.39	1.39	0.08	13.62	11.44	0.75
Fryer #3 Oil Heater	0.10	0.10	0.10	0.01	0.98	0.82	0.05
Maintenance Unit Heater #1	0.13	0.13	0.13	0.01	1.28	1.07	0.07
Fryers #2 and #3	3.33	3.33	3.33	-	-	-	4.16
Air Handling Units #1 and #3	3.9	3.9	3.9	-	3.2	2.7	0.2
Metal Parts Washer	-	-	-	-	-	-	1.38
AMU-4	0.60	0.60	0.60	-	1.2	1.0	0.1
Total TPY	**9.5**	**9.5**	**9.5**	**0.1**	**20.3**	**17.0**	**6.7**

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_{10}	25
$PM_{2.5}$	15
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 amendment.

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed 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 Barber Foods 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 Amendment A-569-71-O-A subject to the conditions found in Air Emission License A-569-71-M-R, in amendment A-569-71-N-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.

The following shall replace Condition (16) of Air Emission License A-569-71-M-R (10/31/2016) and as amended in A-569-71-N-M (4/5/2019):

(16) **Fuel Burning Equipment**

A. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Air Handling Units #1 and #3	PM	0.12	A-569-71-L-A (02/08/2013), BACT
Boilers #1 and #2	PM	0.01	A-569-71-A-N (09/12/1991), BACT
Boiler #3			A-569-71-E-A/R (04/01/1999), BACT
Boilers #4 and #5			A-569-71-H-M (10/31/2003), BACT
Maintenance Shop Heater #1			A-569-71-N-M (04/05/2019), BACT

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

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.05	0.05		-	0.50	0.42	0.03
Boiler #2	0.05	0.05		-	0.50	0.42	0.03
Boiler #3	0.03	0.03		-	0.31	0.26	0.02
Boiler #4	0.09	0.09		0.01	0.90	0.76	0.05
Boiler #5	0.09	0.09		0.01	0.90	0.76	0.05
Maintenance Shop Heater #1	0.03	0.03		-	0.29	0.24	0.02
Fryer #3 Oil Heater	0.02	0.02		-	0.22	0.19	0.01
Air Handling Unit #1	0.64	0.64		-	0.52	0.43	0.03
Air Handling Unit #3	0.26	0.26		-	0.21	0.18	0.01
AMU-4	0.14	0.14	0.14	-	0.26	0.22	0.01

C. Visible emissions from the above listed natural gas fired units shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]

DONE AND DATED IN AUGUSTA, MAINE THIS 28th DAY OF AUGUST, 2025.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____ for ____
MELANIE LOYZIM, COMMISSIONER

The term of this license amendment shall be ten (10) years from the issuance of Air Emission License A-569-71-M-R (issued 10/31/2016).

[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: August 5, 2025
Date of application acceptance: August 7, 2025

This Order prepared by Zac Hicks, Bureau of Air Quality.