



DEPARTMENT ORDER

**Pioneer Plastics Corporation
Androscoggin County
Auburn, Maine
A-448-77-14-M**

**Departmental
Findings of Fact and Order
New Source Review
NSR #14**

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 (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

| | |
|--------------------|--|
| FACILITY | Pioneer Plastics Corporation (Pioneer) |
| LICENSE TYPE | 06-096 C.M.R. ch. 115, Minor Revision |
| NAICS CODES | 325211, 322222, 326130 |
| NATURE OF BUSINESS | Manufacturer of decorative laminate, melamine coated paper, and specialty resins |
| FACILITY LOCATION | One Pionite Rd, Auburn, Maine |

B. NSR License Description

Pioneer Plastics Corporation (Pioneer) has applied to install an additional digital printing system to supplement the existing six (6) digital printers.

C. Emission Equipment

The following equipment is addressed in this NSR license:

Process Equipment

| Equipment | Pollution Control Equipment |
|-----------------------|------------------------------------|
| Digital Printers (7)* | none |

*One new printer and six existing printers.

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 application for Pioneer does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing, or recordkeeping requirements.

The modification of a major source is considered a major or minor modification based on whether or not expected emissions increases exceed the “Significant Emission Increase” levels as given in *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. For a major stationary source, the expected emissions increase from each new, modified, or affected unit may be calculated as equal to the difference between the post-modification projected actual emissions and the baseline actual emissions for each NSR regulated pollutant.

1. Baseline Actual Emissions

Baseline actual emissions (BAE) for existing affected emission units are equal to the average annual emissions from any consecutive 24-month period within the ten years prior to submittal of a complete license application. The selected 24-month baseline period can differ on a pollutant-by-pollutant basis. However, there are no existing emission units which are considered “affected” by this project because none of the existing digital printers will experience physical changes or changes in their methods of operation.

The only equipment addressed by this license is the new digital printer (Digital Printer #7). Baseline actual emissions for new equipment are considered to be zero for all pollutants; therefore, the selection of a baseline year is unnecessary.

2. Projected Actual Emissions

New emission units must use potential to emit (PTE) emissions for projected actual emissions (PAE). The only criteria pollutant emitted by Digital Printer #7 is volatile organic compounds (VOC). Those emissions are presented in the following table.

Projected Actual Emissions

| Equipment | VOC (tpy) |
|--------------------|----------------------|
| Digital Printer #7 | 3.9 |

3. Emissions Increases

Emissions increases are calculated by subtracting BAE from the PAE. The emission increase is then compared to the significant emissions increase levels.

| Pollutant | Baseline Actual Emissions (ton/year) | Projected Actual Emissions (ton/year) | Emissions Increase (ton/year) | Significant Emissions Increase Levels (ton/year) |
|-----------|--------------------------------------|---------------------------------------|-------------------------------|--|
| VOC | 0 | 3.9 | 3.9 | 40 |

4. Classification

The proposed change will not result in an emission increase of greater than 4 tons/year of a single pollutant or 8 tons/year total pollutants, both excluding greenhouse gases. Therefore, the NSR license amendment is determined to be a minor revision under *Minor and Major Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115. An application to incorporate the requirements of this NSR license into the Part 70 air emission license shall be submitted no later than 12 months from commencement of operation of Digital Printer #7.

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 as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 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. New Digital Printer

Pioneer has proposed the installation of a new digital printing system (Digital Printer #7) to supplement the existing six digital printers. Although it is unlikely it will be operated in this manner, PTE from Digital Printer #7 was conservatively estimated assuming maximum throughput and operating the printer 8,760 hours per year. Using this method, PTE for Digital Printer #7 was calculated to be 3.9 tpy for VOC and 3.9 tpy of HAP.

To minimize emissions, Pioneer intends to use mostly water-based inks. No add-on pollution control equipment is offered by the printer manufacturer. Custom-building collection and control equipment to control such a high-volume, low concentration stream is not economically feasible. As is the case for the other digital printers, it will be operated inside and exhausted through the room exhaust system.

The PTE for the other six printers combined is 4.4 tpy. The Department finds an annual emission limit of 8.3 tpy on a 12-month rolling total basis to represent BACT for VOC and HAP emissions from the digital printing operations (i.e., all 7 printers combined).

Compliance shall be demonstrated by recordkeeping, including tracking the VOC and HAP content and volume of inks used on a monthly basis.

C. Incorporation Into the Part 70 Air Emission License

Per *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140 § 1(C)(8), for a modification at the facility that has undergone NSR requirements or been processed through 06-096 C.M.R. ch. 115, the source must apply for an amendment to their Part 70 license within one year of commencing the proposed operations, as provided in 40 C.F.R. Part 70.5.

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. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included. Maximum potential emissions were calculated based on the following assumptions:

- Licensed fuel limits;
- Operating each engine for 100 hrs/yr;
- Operating all process equipment 8,760 hr/yr; and
- Applicable emission caps.

Please note, this information provides the basis for fee calculation only and should not be construed to represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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

| Equipment | PM | PM₁₀ | SO₂ | NO_x | CO | VOC |
|------------------------------|--------------|------------------------|-----------------------|-----------------------|--------------|--------------|
| Boiler #4 | 33.0 | 33.0 | 368.0 | 99.0 | 66.0 | 2.0 |
| Boiler#5/TO & Process VOC | 52.1 | 52.1 | 385.9 | 103.8 | 329.0 | 131.4 |
| Boiler #6 | 27.7 | 27.7 | 135.3 | 86.6 | 98.3 | 6.9 |
| Boilers #7 and #8 | 1.5 | 1.5 | 4.3 | 6.8 | 13.7 | 0.4 |
| Fire Pump and Generators | 0.3 | 0.3 | 0.7 | 9.9 | 2.2 | 0.8 |
| RTO #1 | 1.4 | 1.4 | 0.3 | 4.3 | 1.0 | 17.5 |
| CPL Line #1 | – | – | – | – | – | 2.4 |
| Thermal Oil Heater #1 | 0.1 | 0.1 | – | 1.1 | 0.9 | 0.1 |
| Digital Printers | – | – | – | – | – | 8.3 |
| Totals | 116.1 | 116.1 | 894.5 | 311.5 | 511.1 | 169.8 |

III. AMBIENT AIR QUALITY ANALYSIS

Pioneer previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. An additional ambient air quality analysis is not required for this NSR license.

ORDER

The Department hereby grants New Source Review Minor Revision A-448-77-14-M pursuant to the preconstruction licensing requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

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 (1) of NSR License A-448-77-11-A:

(1) **Digital Printers**

A. Emissions from the Digital Printers shall not exceed 8.3 tpy of VOC and 8.3 tpy of HAP on a 12-month rolling total basis. Compliance shall be demonstrated by the recordkeeping requirements of this license. [06-096 C.M.R. ch. 115, BACT]

B. Pioneer shall maintain the following records:

1. Monthly records of the amount of each VOC/HAP-containing ink used in the Digital Printers.
2. Records of the VOC and HAP content for each ink used.
3. Monthly calculations demonstrating compliance with the VOC and HAP emission limits.

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

(2) **Part 70 Incorporation**

Pioneer shall submit an application to incorporate this NSR license into the facility's Part 70 air emission license no later than 12 months from commencement of the requested operation. [06-096 C.M.R. ch. 140 § 1(C)(8)]

DONE AND DATED IN AUGUSTA, MAINE THIS 27th DAY OF APRIL, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
GERALD D. REID, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/30/2020

Date of application acceptance: 3/30/2020

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

FILED
APR 27, 2020
State of Maine
Board of Environmental Protection