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

DEPARTMENT ORDER

Northeast Packaging Co. **Aroostook County** **Presque Isle, Maine** **A-894-71-D-A**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Amendment #1**

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

Northeast Packaging Co. (Northeast Packaging) was issued Air Emission License A-894-71-C-R on November 1, 2013, for the operation of emission sources associated with their printing facility.

Northeast Packaging has requested an amendment to their license to include the following:

- Installation of a new central impression flexographic printing press and dryer;
- Extension of the due date for control equipment destruction efficiency testing, from the end of 2018 to no later than June 30, 2019;
- Increase of the facility's annual volatile organic compounds (VOC) emission limit from 24.9 tons/year to 49.9 tons/year, on a 12-month rolling total basis; and
- Modify press operation license restrictions so that all four presses may operate concurrently under certain operational scenarios.

Because the increase in the facility's licensed VOC emissions cap triggers the requirement of annual emissions reporting under 06-096 C.M.R. ch. 137, applicable requirements of that rule have been included in this license amendment.

Fuel sulfur content requirements for the distillate fuel fired in Boiler #3 are also updated in this amendment to reflect current statutory requirements.

The equipment addressed in this license amendment is located at 875 Skyway Street in Presque Isle, Maine.

B. Emission Equipment

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

Process Equipment

Equipment	Max. Process Rate	Date of...	
		Manufacture	Installation
Printing Press #1	17,000 ft/hr	1994	1995
Printing Press #2	17,000 ft/hr	1999	2000
Printing Press #3	17,000 ft/hr	1994	2006
Printing Press #4*	78,000 ft/hr	2018	2018
Bag Machines (5)	10,600 lb/day	1994	1995

* New Equipment

Associated Fuel Burning Equipment

Equipment	Max. Input Capacity (MMBtu/hr)	Fuel Type (% sulfur)	Maximum Firing Rate	Date of Manufacture	Date of Installation
Boiler #3**	0.8	Distillate Fuel (0.0015% by wt)	5.5 gal/hr	2017	2018
Regenerative Thermal Oxidizer (RTO)	2.3	Propane (negligible)	18 gal/hr	Pre-2008	2008
Press #4 Dryer*	1.0	Propane (negligible)	10.6 gal/hr	2018	2018

* New Equipment

** Boiler #3 is below the licensing threshold and therefore considered "insignificant" per 06-096 C.M.R. ch. 115; and is included here for completeness purposes only.

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 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 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 (TPY)
PM	0.1	0.2	0.1	100
PM_{10}	0.1	0.2	0.1	100
SO_2	0.2	0.2	0.0	100
NO_x	1.1	1.7	0.6	100
CO	0.3	0.7	0.4	100
VOC	24.9	49.9	25.0	50

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

D. Facility Classification

With the annual hazardous air pollutants (HAP) and the VOC limits associated with the printing process, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because licensed emissions are below the major source thresholds for criteria pollutants; and
- As an area source of HAP, because licensed emissions are below the major source thresholds for HAP.

Emissions of VOC are licensed above 80% of the major source threshold. Therefore, this facility is classified as an "80% Synthetic Minor" for the purpose of determining the minimum required compliance inspection frequency in accordance with Maine's Compliance Monitoring Strategy.

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 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. Printing Press #4

1. Amendment Description and BACT

Northeast Packaging has requested to install a new central impression flexographic printing press at its Presque Isle facility, Printing Press #4. The new unit has a production capacity of 78,000 ft/hr and has an accompanying dryer unit.

Currently, Northeast Packaging operates three flexographic printing presses, with production capacity of 17,000 ft/hr each. Emissions from these presses are controlled through the operation of a regenerative thermal oxidizer (RTO) when any of the presses use solvent-based ink[1]. Assuming a control of 97% of VOC with the use of the RTO (based on the results of previous stack tests), VOC emissions have been calculated to be 4.7 tons in 2016 and 4.8 tons in 2017. With the installation of this new printing press, Northeast Packaging will be increasing its maximum potential throughput capacity of the presses (ft/hr) by over 150%; however, expected use of the new unit will likely replace the production of at least one of the oldest units.

The VOC emissions calculation method will be changing based on streamlined requirements of *Graphic Arts-Rotogravure and Flexography,* 06-096 C.M.R. ch. 132 and based on updated capture efficiency data for the emissions being conveyed to the RTO. Because of this change in calculation method, Northeast Packaging has requested to increase allowable annual emissions of VOC from 24.9 tons per year to 49.9 tons per year on a 12-month rolling total basis. The Department has determined that this change is acceptable considering that actual annual emissions of VOC are not projected to increase greatly as Printing Press #4 will be used primarily to replace the production of other, less-efficient presses.

Based on the above information, the Department has determined that venting emissions from Printing Press #4 to the RTO when using solvent-based ink represents BACT for Printing Press #4.

Northeast Packaging shall limit VOC, single HAP, and total HAP from the facility to the following, on a 12-month rolling total basis:

- 49.9 tons of VOC;
- 9.9 tons of any single HAP; and
- 24.9 tons of total HAP.

Northeast Packaging shall include materials used in Press #4 in facility-wide VOC and HAP calculations.

[1] Solvents used in solvent-based ink are VOC, whereas any VOC emissions from water-based inks are below de minimus levels and considered negligible.

2. *Graphic Arts-Rotogravure and Flexography,* 06-096 C.M.R. ch. 132 (Ch. 132)

Printing Press #4 is subject to *Graphic Arts-Rotogravure and Flexography,* 06-096 C.M.R. ch. 132 because it is a flexographic printing press located at a facility whose maximum theoretical emissions of VOC from all printing presses are greater than 50 tons per year [06-096 C.M.R. ch. 132 (1)(B)]. Northeast Packaging shall comply with all applicable requirements of Ch. 132, including the following for Printing Press #4:

a. Emissions Standards Options

This rule includes three methods available for Northeast Packaging to comply with the emissions standards of Ch. 132: VOC limits for ink used, daily-weighted average VOC limits for inks used, or the use of a control device.

Northeast Packaging complies with Ch. 132 using the VOC limit option when operating with water-based inks and via the control device option when using solvent-based inks containing VOC. Requirements of each of these two compliance methods are presented below.

(1) VOC Limit Option

When complying with this chapter using the VOC limit option, Northeast Packaging shall not apply any coating or ink unless the VOC content is equal to or less than one of the following:

(a) 40% VOC by volume of the coating or ink, excluding water, as applied;

(b) 25% VOC by volume of the volatile content in the coating or ink, as applied; or

(c) 0.5 lb VOC per lb of coating solids, as applied.

Compliance is demonstrated through recordkeeping, as discussed in the *Recordkeeping and Reporting* section of this amendment.
[06-096 C.M.R. ch. 132(3)(B)]

(2) Control Device Option

When using this compliance option, Northeast Packaging shall comply with the following:

(a) Control Efficiency
Northeast Packaging shall not operate the printing presses unless both of the following control efficiencies are met:
1) The facility's RTO has a destruction efficiency of at least 90% by weight of VOC emissions delivered from the capture system to the RTO, and

2) Operating presses are equipped with a capture system and control device which provide an overall emission reduction efficiency of at least 60%.

(b) Control Device Operation
The RTO shall be operated at all times that a printing press is in operation while using this compliance option.

(c) Monitoring Equipment
Northeast Packaging shall continuously monitor the temperature of the RTO combustion chamber.

The temperature monitoring equipment shall be installed, calibrated, operated, and maintained per the manufacturer's specifications at all times that the RTO is in use. The temperature monitor must be equipped with a continuous recorder and have an accuracy range of no greater than ± 1% of the 3-hour average combustion temperature, in degrees Fahrenheit, from the most recent performance test that demonstrated compliance.

Compliance with this option is demonstrated through recordkeeping discussed in the *Recordkeeping and Reporting* section of this amendment and through testing of the RTO, as required per BPT, and other methods as approved by the Department.

[06-096 C.M.R. ch. 132(5) and 06-096 C.M.R. ch. 115, BPT]

b. Recordkeeping and Reporting

Northeast Packaging shall complete the reporting and recordkeeping requirements listed below. All records shall be kept readily available for review during normal business hours, and copies shall be provided to the Department and/or EPA upon request. Records shall be maintained on site for at least six years.

(1) Initial Certification
Upon initial startup of Printing Press #4, Northeast Packaging shall submit an initial compliance certification to the Department which includes the following:

(a) The name and location of the facility;
(b) The address and telephone number of the person responsible for compliance at the facility;
(c) Identification of subject source;
(d) The name, identification number, and VOC content of each coating and ink used in operations where the VOC limit option is the compliance method; and
(e) All tests and calculations necessary to demonstrate that the press will be in compliance with the requirements of the control device compliance method.

Northeast Packaging shall submit a subsequent compliance certification to the Department at least 30 days prior to making any change in the chosen compliance methods after the initial certification has been submitted. [06-096 C.M.R. ch. 132 (7)(B)(1), (7)(B)(3), (7)(D)(1), and (7)(D)(3)]

(2) Recordkeeping for VOC Limit Option

Northeast Packaging shall keep daily records of the names, identification numbers, and VOC contents of each coating or ink used, as applied, for operations complying using the VOC limit compliance method (water-based inks). The Department has determined that the streamlined daily composite total for all printing presses satisfies this requirement.

If the facility can demonstrate that all coatings and inks used at the facility are compliant with the VOC limit compliance method, records may be kept on a monthly basis. [06-096 C.M.R. ch. 132(7)(B)(2)]

(3) Recordkeeping for Control Device Option

Northeast Packaging shall keep daily records of the information listed below for operations complying using the control device compliance method:

(a) The name and identification number of each applicable printing press;

(b) The mass of VOC per unit volume of coating solids, as applied; the volume of solids content, as applied; and the volume, as applied, of each coating used each day on each printing press;

(c) The overall emission reduction efficiency for each day for each printing press, required in Section (5)(A)(2) of 06-096 C.M.R. ch. 132 to be at least 60% overall emission reduction efficiency for a flexographic printing press, accounting for the effectiveness of both the capture system and the control device;

(d) Control device monitoring data;

(e) A log of operating time for the capture system, control device, monitoring equipment, and the associated printing press or presses;

(f) A maintenance log for the capture system, control device, and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and durations of any outages; and

(g) Records of all continuous 3-hour periods of operation in which the average combustion temperature was more than 28 degrees C (50 degrees F) below the average combustion temperature during the most recent performance test that demonstrated compliance.

[06-096 C.M.R. ch. 132(7)(D)(2)]

(4) Additional Reporting Requirements

Northeast Packaging shall notify and provide a written report to the Department of any noncompliance with the selected compliance methods within 30 calendar days following each occurrence.

A noncompliance report for the VOC limit compliance method shall include a statement certifying noncompliance with the applicable emission limit and the effected press or presses.

A noncompliance report for the control device compliance method shall include a description of the cause, duration, remedial action, and steps to be taken to prevent recurrence of such malfunctions, failures, or downtimes.
[06-096 C.M.R. ch. 132(7)(B)(3)(a) and (7)(D)(3)(a)]

c. Handling of Materials Containing VOC

Northeast Packaging shall take the following precautions for the handling, storage, and disposal of VOC containing materials:

(1) Northeast Packaging shall use vapor-tight containers for the storage of spent or fresh VOC containing materials and for the storage or disposal of cloth or paper impregnated with VOC containing materials that are used for surface preparation, cleanup, or coating removal.

(2) Northeast Packaging shall not use VOC containing materials for the cleanup of spray equipment unless other equipment is used to collect the cleaning compounds and minimize evaporation to the atmosphere.

[06-096 C.M.R. ch. 132(8)]

3. *National Emission Standards for the Printing and Publishing Industry,* 40 C.F.R. Part 63, Subpart KK

Northeast Packaging is not subject to 40 C.F.R. Part 63, Subpart KK. Subpart KK is applicable to facilities that operate wide-web flexographic printing presses and that are either major sources of HAP or that are synthetic area sources of HAP which do not have federally-enforceable limits on their annual potential to emit to below major source levels. Because Northeast Packaging has facility-wide annual single and total HAP limits pursuant to 06-096 C.M.R. ch. 115, BPT, it is exempt from the requirements of this Subpart. [40 C.F.R. §63.820(a)(1) and (7)]

C. Press #4 Dryer

The new Press #4 includes a dryer, identified as Press #4 Dryer, which is an integral part of the press. The dryer has two burners which have a combined rating of 1.0 MMBtu/hr firing propane. The Press #4 Dryer will be installed in 2018 as part of Printing Press #4 and will exhaust with Press #4 to the RTO when using solvent-based inks.

BACT Findings

BACT emission limits for the dryer are based on the following:

Propane

Pollutant	Emission Factor	Basis for Emission Factor
PM	0.7 lb/1000 gal	AP-42 Table 1.5-1, dated 07/08
PM_{10}	0.7 lb/1000 gal	AP-42 Table 1.5-1, dated 07/08
SO_2	0.018 lb/1000 gal	AP-42 Table 1.5-1, dated 07/08 and the firing of propane with a sulfur content of 0.18 gr/100 ft^3
NO_x	13 lb/1000 gal	AP-42 Table 1.5-1, dated 07/08
CO	7.5 lb/1000 gal	AP-42 Table 1.5-1, dated 07/08
VOC	1 lb/1000 gal	AP-42 Table 1.5-1, dated 07/08
Visible Emissions	N.A.	06-096 C.M.R. ch. 115, BACT

BACT emission limits for the dryer are the following:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Press #4 Dryer Propane	0.01	0.01	Negligible	0.14	0.08	0.01

Visible Emissions from Press #4 Dryer when not exhausting through the RTO shall not exceed 10% opacity on a six-minute block average basis.

D. RTO Destruction Efficiency Testing

The facility's current air emission license requires compliance with the RTO destruction efficiency to be demonstrated within 180 days of installation and every five years thereafter in accordance with 40 C.F.R. Part 60, Appendix A, Method 25A [Condition (19) C of A-894-71-C-R]. To facilitate investigation and more accurate assessment of capture efficiencies on all the presses, Northeast Packaging will work with the Department to identify appropriate testing scenarios to accurately determine both capture efficiency and destruction efficiency for all presses, and to achieve and demonstrate compliance with the overall 60% VOC control efficiency required by Ch. 132 and the facility-wide VOC emission limit of 49.9 tons/year, as discussed in the following section.

The Department hereby authorizes extension of the due date for control equipment destruction efficiency testing to no later than June 30, 2019, and for repeat testing to be conducted every fifth calendar year thereafter unless requested by the Department on a more frequent basis.

If the testing conducted after the issuance date of this amendment and before June 30, 2019, demonstrates that the facility does not achieve overall 60% VOC control efficiency for the

presses or emits greater than the 49.9 tons/year VOC limit, Northeast Packaging shall promptly undertake changes, such as increasing capture efficiencies, to achieve compliance with these requirements.

E. Annual VOC Emission Cap

With the addition of the new press and closer consideration of capture efficiencies of all presses, actual emissions from the presses may be higher than historically documented based on assumed capture efficiencies. Therefore, Northeast Packaging has requested the increase of the facility's annual VOC emission limit from 24.9 tons/year to 49.9 tons/year, on a 12-month rolling total basis. The Department concurs with the changes as proposed, in conjunction with both capture efficiency and destruction efficiency testing as described in the previous section, and hereby authorizes the increase in the facility-wide VOC emissions cap.

F. Modification of Press Operational Scenarios

Because the RTO controls VOC emissions from the presses, operation of the presses is restricted by the maximum air flow capacity and corresponding destruction capacity of the control device. The RTO, a Megtech Millennium 10,000, was installed in March 2008 and came online in April of that year. It is rated for a total solvent loading of 181 lbs/hr and a flow rate of 10,000 standard cubic feet per minute (scfm). Northeast Packaging shall monitor the operation of all presses such that the solvent loading and flow rate to the RTO at any one time does not exceed the RTO's maximum rated capacities, and shall modify press operational scenarios as needed to not exceed the RTO's capacity ratings.

G. Emission Statements

Northeast Packaging is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. Northeast Packaging shall maintain the following records in order to comply with this rule:

1. The amount of propane fired at the facility on a monthly basis;
2. Calculations of the VOC and HAP emissions from the printing presses on a calendar year total basis; and
3. Hours of operation for each emissions unit on a monthly basis.

Note: The fuel firing capacities of Boiler #3 and of the dryers associated with Presses #1, #2, and #3 are below de minimis levels; therefore, Boiler #3 and those three dryers are not included in this emission statements recordkeeping requirement.

Beginning with reporting year 2020 and every third year thereafter, Northeast Packaging 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 the applicable annual air quality surcharge for the subsequent three annual billing

periods. Northeast Packaging shall pay the annual air quality surcharge by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

H. Boiler #3 Distillate Fuel Sulfur Content Requirements

Boiler #3 is licensed to fire distillate fuel. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use in Boiler #3 shall not exceed 0.0015% by weight (15 ppm). Distillate fuel with a higher sulfur content purchased prior to July 1, 2018, may be combusted in Boiler #3 until it is depleted.

Compliance shall be demonstrated by fuel records from the supplier showing the type and sulfur content of the fuel delivered. [06-096 C.M.R. 115, BPT]

I. Annual Emissions

Northeast Packaging shall be restricted to the following annual emissions on a 12-month rolling total basis based on 8,760 hours of operation of the RTO and Press #4 Dryer, and facility-wide caps for VOC and HAP:

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
RTO	0.1	0.1	0.2	1.1	0.3	49.9
Press #4 Dryer	0.1	0.1	--	0.6	0.4	
Printing Presses	--	--	--	--	--	
Total TPY	**0.2**	**0.2**	**0.2**	**1.7**	**0.7**	**49.9**

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 amendment.

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-894-71-D-A subject to the conditions found in Air Emission License A-894-71-C-R 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.

All Specific Conditions of Air Emission License A-894-71-C-R (11/1/2013) are replaced with the following Specific Conditions.

SPECIFIC CONDITIONS

(16) **Boiler # 3**

A. Fuel

1. Boiler #3 is licensed to fire distillate fuel.

2. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). Distillate fuel with a higher sulfur content purchased prior to July 1, 2018, may be combusted in Boiler #3 until it is depleted. [06-096 C.M.R. ch. 115, BPT]

3. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BPT]

B. Visible emissions from Boiler #3 shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a continuous three-hour period. [06-096 C.M.R. ch. 101]

(17) **Printing Presses**

A. Northeast Packaging is licensed to operate Printing Presses #1, #2, #3, and #4 using solvent-based and water-based inks. [06-096 C.M.R. ch. 115, BACT]

B. Northeast Packaging shall operate an RTO to control VOC and HAP emissions from the printing presses. The RTO shall achieve 95% destruction of VOC from the presses and shall be operated whenever solvent-based inks are used on a press. Presses are not required to be ducted to the RTO when not in operation or when using water-based inks. [06-096 C.M.R. ch. 115, BACT]

C. The RTO shall be operated in accordance with the manufacturer's specifications. [06-096 C.M.R. ch. 115, BACT]

D. The RTO shall maintain a temperature of at least the minimum temperature established during the most recent compliance testing on the system where the destruction efficiency requirement was met. Compliance shall be demonstrated by thermocouples (that shall not be in direct contact with the auxiliary burner flame) maintained at the RTO's combustion chamber exit. The temperature shall be recorded continuously and meet the parameter monitor uptime requirement. [06-096 C.M.R. ch. 115, BACT]

E. Northeast Packaging shall conduct monthly inspections of the RTO, including thermocouples. Annual calibrations on the thermocouples shall be performed in accordance with the manufacturer's recommendations. Records of inspections, calibrations, and resulting actions, as appropriate, shall be maintained and readily accessible for inspection upon request. [06-096 C.M.R. ch. 115, BACT]

(18) ***Graphic Arts-Rotogravure and Flexography*, 06-096 C.M.R. ch. 132**

Northeast Packaging shall comply with all applicable requirements of 06-096 C.M.R. ch. 132, including but not limited to the following:

A. Emissions Standards

1. VOC Limit Option [06-096 C.M.R. ch. 132(3)(B)]

When complying with this chapter using the VOC limit option, Northeast Packaging shall not apply any coating or ink unless the VOC content is equal to or less than one of the following:
(a) 40% VOC by volume of the coating or ink, excluding water, as applied;
(b) 25% VOC by volume of the volatile content in the coating or ink, as applied; or
(c) 0.5 lb VOC per lb of coating solids, as applied.

Compliance is demonstrated through recordkeeping, as discussed in the *Recordkeeping and Reporting* section of this amendment.

2. Control Device Option [06-096 C.M.R. ch. 132(5) and 06-096 C.M.R. ch. 115, BPT]

When using this compliance option, Northeast Packaging shall comply with the following:

(a) Control Efficiency
Northeast Packaging shall not operate the printing presses unless both of the following control efficiencies are met:
i. The facility's RTO has a destruction efficiency of at least 90% by weight of VOC emissions delivered from the capture system to the RTO; and
ii. The operating presses are equipped with a capture system and control device that provides an overall emission reduction efficiency of at least 60%.

(b) Control Device Operation
The RTO shall be operated at all times that a printing press is in operation and using this compliance option.

(c) Monitoring Equipment
Northeast Packaging shall continuously monitor the temperature of the RTO combustion chamber.

The temperature monitoring equipment shall be installed, calibrated, operated, and maintained per the manufacturer's specifications at all times that the RTO is in use. The temperature monitor shall be equipped with a continuous recorder and have an accuracy range of no greater than ± 1% of the 3-hour average combustion temperature, in degrees Celsius, from the most recent performance test that demonstrated compliance.

B. Recordkeeping and Reporting

Northeast Packaging shall complete the reporting and recordkeeping requirements listed below. All records shall be kept readily available for review during normal business hours, and copies shall be provided to the Department and/or EPA upon request. Records shall be maintained on-site for at least six years.

1. Initial Certification (Printing Press #4)

Upon initial startup of Printing Press #4, Northeast Packaging shall submit an initial compliance certification to the Department which includes the following:
(a) The name and location of the facility;
(b) The address and telephone number of the person responsible for compliance at the facility;
(c) Identification of subject source;
(d) The name, identification number, and VOC content of each coating and ink used in operations where the VOC limit option is the compliance method; and
(e) All tests and calculations necessary to demonstrate that the press will be in compliance with the requirements of the control device compliance method.

Northeast Packaging shall submit a subsequent compliance certification to the Department at least 30 days prior to making any change in the chosen compliance methods after the initial certification has been submitted.
[06-096 C.M.R. ch. 132 (7)(B)(1), (7)(B)(3), (7)(D)(1), and (7)(D)(3)]

2. Recordkeeping for VOC Limit Option [06-096 C.M.R. ch. 132(7)(B)(2)]

Northeast Packaging shall keep daily records of the names, identification numbers, and VOC contents of each coating or ink used, as applied, for operations complying using the VOC limit compliance method (water-based inks).

If all coatings and inks used at the facility comply with Ch. 132 via the VOC limit compliance method, records may be kept on a monthly basis.

3. Recordkeeping for Control Device Option [06-096 C.M.R. ch. 132(7)(D)(2)]

Northeast Packaging shall keep daily records of the information listed below for operations complying using the control device compliance method:

(a) The name and identification number of each applicable printing press;

(b) The mass of VOC per unit volume of coating solids, as applied; the volume of solids content, as applied; and the volume, as applied, of each coating used each day on each printing press;

(c) The overall emission reduction efficiency for each day for each printing press, required in Section (5)(A)(2) of 06-096 C.M.R. ch. 132 to be at least 60% overall emission reduction efficiency for a flexographic printing press, accounting for the effectiveness of both the capture system and the control device;

(d) Control device monitoring data;

(e) A log of operating time for the capture system, control device, monitoring equipment, and the associated printing press or presses;

(f) A maintenance log for the capture system, control device, and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and durations of any outages; and

(g) Records of all continuous 3-hour periods of operation in which the average combustion temperature was more than 28 degrees C (50 degrees F) below the average combustion temperature during the most recent performance test that demonstrated compliance.

4. Additional Reporting Requirements

Northeast Packaging shall notify and provide a written report to the Department of any noncompliance with the selected compliance methods within 30 calendar days following each occurrence.

A noncompliance report for the VOC limit compliance method shall include a statement certifying noncompliance with the applicable emission limit and the effected press or presses.

A noncompliance report for the control device compliance method shall include a description of the cause, duration, remedial action, and steps to be taken to prevent recurrence of such malfunctions, failures, or downtimes.

[06-096 C.M.R. ch. 132(7)(B)(3)(a) and (7)(D)(3)(a)]

5. Handling of Materials Containing VOC [06-096 C.M.R. ch. 132(8)]

Northeast Packaging shall take the following precautions for the handling, storage, and disposal of VOC containing materials:

(a) Northeast Packaging shall use vapor-tight containers for the storage of spent or fresh VOC containing materials and for the storage or disposal of cloth or paper impregnated with VOC containing materials that are used for surface preparation, cleanup, or coating removal.

(b) Northeast Packaging shall not use VOC containing materials for the cleanup of spray equipment unless other equipment is used to collect the cleaning compounds and minimize evaporation to the atmosphere.

(19) Visible emissions from dryers firing propane shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101]

(20) **Press Operational Scenarios**

Northeast Packaging shall monitor the operation of all presses such that the solvent loading and flow rate to the RTO at any one time does not exceed the RTO's maximum rated capacities of 181 lb/hr (solvent loading) and 10,000 scfm (flow rate), and shall modify press operational scenarios as needed to not exceed the RTO's ratings. Records shall be maintained to document compliance.

(21) **VOC and HAP Emissions** [06-096 C.M.R. ch. 115, BPT]

A. Northeast Packaging shall limit VOC emissions from the facility to 49.9 tons per year based on a 12-month rolling total. Compliance shall be demonstrated by recordkeeping of solvent and ink usage, VOC content from safety data sheets, VOC capture efficiency, RTO destruction efficiency, and calculated VOC emissions, on both a monthly and a 12-month rolling total basis.

B. Northeast Packaging, collaborating with the Department, shall identify appropriate testing scenarios and conduct testing to accurately determine both capture efficiency and destruction efficiency for all presses, and to achieve and demonstrate compliance with the overall VOC control efficiency and the facility-wide VOC emission limit.

Control equipment capture and destruction efficiency testing shall be conducted no later than June 30, 2019, in accordance with 40 CFR Part 60, Appendix A, Method 25A. Repeat testing shall be conducted every fifth calendar year thereafter unless requested by the Department on a more frequent basis.

If, at any time, testing demonstrates that the facility does not achieve the required overall VOC control efficiency or the annual VOC limit, Northeast Packaging shall promptly undertake changes, such as modifying enclosure devices to increase capture efficiencies, to achieve compliance with these requirements.

C. HAP emissions from the facility shall not exceed 9.9 tons/year for any single HAP and shall not exceed 24.9 tons per year for total combined HAP, both on a 12-month rolling total. Compliance shall be demonstrated by recordkeeping including records of solvent and ink usage, HAP content from safety data sheets, capture efficiency, the RTO destruction efficiency, and calculated HAP emissions.

D. Northeast Packaging shall operate the RTO such that the visible emissions from the stack do not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(22) **Fugitive VOC Emissions**

Fugitive VOC emissions from the ink storage area are minimal; however, any losses shall be accounted for in the monthly inventory and material balance required to determine VOC emissions.

Inks, clean-up materials, and other VOC-containing materials shall be stored in containers with vapor tight lids which are kept closed at all times when material is not being added or removed.

(23) Northeast Packaging shall maintain electrostatic filters to clean smoke vented from the bag machines. Daily inspections shall be logged to determine proper operation of the ESP collection units whenever the bag machines are operating. [06-096 C.M.R. ch. 115, BPT]

(24) A monthly record shall be maintained to document use and composition of cleanup solvents. [06-096 C.M.R. ch. 115, BPT]

(25) A copy of this Order shall be kept on-site and the operator(s) must be familiar with the terms of the Order. [06-096 C.M.R. ch. 115, BPT]

(26) **Press #4 Dryer**

A. Fuel

Press #4 Dryer shall only fire propane. [06-096 C.M.R. ch. 115, BACT]

B. Emissions from fuel combustion from the Press #4 Dryer shall not exceed the following [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)
Press #4 Dryer Propane	0.01	0.01	Negligible	0.14	0.08	0.01

Visible Emissions from Press #4 Dryer when not exhausting through the RTO shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

(27) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101]

(28) **Parameter Monitor**

Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the source operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions. [06-096 C.M.R. ch. 115, BPT]

(29) **Annual Emission Statements**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Northeast Packaging 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. Northeast Packaging shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

1. The amount of propane fired in the RTO on a monthly basis;
2. The amount of propane fired in the Press #4 Dryer on a monthly basis;
3. Calculations of the VOC and HAP emissions from the printing presses on a calendar year total basis; and
4. Hours of operation for each emission unit on a monthly basis.

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

C. Beginning with reporting year 2020 and every third year thereafter, Northeast Packaging shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Northeast Packaging 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)]

(30) Northeast Packaging 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).

DONE AND DATED IN AUGUSTA, MAINE THIS 7 DAY OF February , 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
GERALD D. REID, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-894-71-C-R.

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

Date of initial receipt of application: July 9, 2018
Date of application acceptance: July 17, 2018

Date filed with the Board of Environmental Protection:

This Order prepared by Colby Fortier-Brown and Jane E. Gilbert, Bureau of Air Quality.