



1.1.3 Applicable Regulations

- a. An "affected laminator" for the purpose of these unit-specific conditions is a laminator and associated dryer used to laminate plastic film.

An "affected flexographic press" for the purpose of these unit-specific conditions is a flexographic press and associated dryer used to print on plastic films and paper substrates.

- b. The laminating lines shall be equipped with capture systems and control devices that provide 81 percent reduction in the overall emissions of VOM from each line and each control device is required to be 90 percent efficient [35 IAC 218.207]. It should be noted Condition 1.1.5(b) requires the overall VOM control of the thermal oxidizers to be 94 percent which is greater than this applicable regulation.
- c. The flexographic presses shall be equipped with capture systems and control devices that provide 60 percent reduction in the overall emissions of VOM from each line and each control device is required to be 90 percent efficient [35 IAC 218.401(c)]. It should be noted Condition 1.1.5(b) requires the overall VOM control of the thermal oxidizers to be 94 percent which is greater than this applicable regulation.

1.1.4 Non-Applicable Regulations

Pursuant to 35 IAC 218.209 and 218.402(b), the affected laminators and flexographic presses are not subject to 35 IAC 218.301 (i.e., the 8 lb/hr rule) because they are specifically exempted.

1.1.5 Operational and Work Practice Requirements

- a. Usage of VOM containing materials on the presses and laminators below shall not exceed the following limits:

		VOM Within Printing/Laminating Solvents		VOM Within Inks/Adhesives	
		<u>(Lb/Mo)</u>	<u>(T/Yr)</u>	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
Group 1:	FP 6, 7 and 8	44,506	222	38,827	193
Group 2:	FP 1, 4, 5, L1, L2, L3, and L4	<u>115,052</u>	<u>641</u>	<u>184,948</u>	<u>1,017</u>
Totals:	All Presses and Laminators	159,558	863	223,775	1,210

- b. The capture system and afterburner on the affected laminators and flexographic presses shall be operated to achieve 94% overall control of VOM attributable to coatings and adhesives. This is a consequence of the conditions imposed in Construction Permit 94120012. Note that this supersedes the requirement of 35 IAC 218.207(b)(1) and 218.401(c), which requires that an overall reduction of at least 81 percent be attained from the laminators and at least 60 percent be attained from the flexographic presses;
- c. The capture system and control devices are to be operated at all times when the affected laminators and flexographic presses are in operation.
- d. The capture systems on each affected laminator and flexographic press shall be designed, operated, and maintained to provide permanent total enclosure, in accordance with the criteria in 35 Ill. Adm. Code Part 218, Appendix B, Procedure T. If the enclosure fails to meet USEPA's "Guidance on Addressing Capture Efficiency in Enforcing VOC SIP Regulations" the enclosure shall be upgraded. In no case shall the overall efficiency be less than 81%. It should be noted Condition 1.1.5(b) requires the overall VOM control of the thermal oxidizers to be 94% which is greater than the applicable requirement of 81%.
- e. Notwithstanding 35 IAC 218.106, seasonal shutdown of either thermal oxidizer from November 1 through March 31 of the following year is not allowed.
- f. The thermal oxidizer's combustion chambers shall be preheated to the manufacturer's recommended temperature but not lower than 1400 degrees F, before the laminating process is begun; this temperature shall be maintained during the laminating and printing processes.
- g. The dryers and thermal oxidizers for each affected laminator and flexographic press shall only use natural gas for fuel.

#### 1.1.6 Emission Limitations

- a. This permit is issued based on negligible emissions of VOM from application of coatings not identified above. For this purpose emissions of VOM attributable to such coatings shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
- b. Emissions of VOM from the following presses shall not exceed the following limits:

	VOM Emissions	
	(Tons/Mo)	(Tons/Yr)
Group 1: FP 6, 7 and 8	2.5	24.9
Group 2: FP 1, 4, 5, L1, L2, L3, and L4	<u>9.0</u>	<u>99.9</u>
Totals: All Presses & Laminators	11.5	124.8

- c. Compliance with annual limits shall be determined from a running total of 12 months of data (i.e., the current month plus the previous 11 months of data).

1.1.7 Testing Requirements

- a. Upon request by the Illinois EPA, the VOM contents of coatings, inks, etc., and the efficiency of each capture system and control device shall be determined by the applicable test methods and procedures specified in 35 IAC 218.105 [35 IAC 218.211(a)].
- b. If the Permittee wishes to obtain credit for the cleaning solvents sent off-site, then the percent concentration of solvent in the waste shall be determined in accordance with USEPA Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW-846), Test Method 8260.

1.1.8 Monitoring Requirements

Each thermal oxidizer shall be equipped with a continuous temperature indicator and strip chart recorder or disk storage for the combustion chamber temperature, pursuant to 35 IAC 218.105(d)(2)(A)(i). Each afterburner shall be preheated and operated with a minimum temperature of 1400 degrees F and have 94% volatile organic material (VOM) and hazardous air pollutant (HAP) destruction efficiency.

1.1.9 Recordkeeping Requirements

The Permittee shall collect and record the following for each grouping of the affected laminators and flexographic presses (i.e., Group 1 being FP 6, FP 7 and FP 8; Group 2 being all other flexo presses and laminators L1, L2, L3 and L4):

- a. Control device monitoring data each day the thermal oxidizer operates [35 IAC 218.211(e)(2)(B)].
- b. A log of the operating time for the capture system, control device, monitoring equipment and the coating operation [35 IAC 218.211(e)(2)(C)].

- c. A maintenance log for the capture system, control device and monitoring equipment detailed all routine and non-routine maintenance performed including dates and duration of any outages [35 IAC 218.211(e)(2)(D)].
- d. For each group of emission units:
  - i. Date;
  - ii. Product;
  - iii. Adhesive, ink, or solvent code;
  - iv. Gallons of adhesive used per month;
  - v. Gallons of ink used per month; and
  - vi. Gallons of coating and laminating solvent used per month.
- e. For each adhesive, ink, and solvent used, a record of the following information shall be kept at the facility and updated as new adhesives and inks are added:
  - i. Identification code of adhesive, ink, or solvent;
  - ii. Description of adhesive, ink, or solvent;
  - iii. Supplier of adhesive, ink, or solvent;
  - iv. Supplier's identification code or product number;
  - v. VOM content as supplied, in pounds VOM per gallon of coating minus water; and
  - vi. Density of adhesive, ink or solvent.
- f. Monthly VOM emissions from each group of affected laminators and flexographic presses calculated in accordance with Condition 1.1.12.
- g. The most recent stack test report for each thermal oxidizer.

1.1.10 Reporting Requirements

- a. Report of Deviations

If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee

shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences [Section 39.5(7)(f)(ii) of the Act].

- b. Each calendar quarter, a written report of all failures to meet the temperature requirement shall be submitted in the form of a Quarterly Report. For purposes of this report, each 60 minute period in which the afterburner's average temperature is not maintained greater than 1400 degrees F and a laminator or flexographic press is being operated is considered to be a failure event. The Quarterly Report shall be submitted within 21 days after the end of the calendar quarter and include the following information:

- i. Time;
- ii. Duration
- iii. Actual Temperature;
- iv. Cause of Failure; and
- v. Corrective Action Taken.

- c. Report for Changing Method of Compliance

The Permittee shall certify compliance with the Illinois EPA at least 30 calendar days before changing the method of compliance with 35 IAC 218.207 [35 IAC 218.211(e)(3)(B)].

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

Compliance with the emission limits in Condition 1.1.6 shall be based on the recordkeeping requirements in Condition 1.1.9 and the emission factors and formulas listed below:

$$\text{VOM Emissions} = \frac{\text{Material} *}{\text{Material} *} \times \frac{\text{Amount of VOM Content of Material} *}{\text{Material} *} \times (1 - \text{CE})$$

\* Coating, ink, laminating or adhesive solvent

Where:

CE = Overall Control Efficiency of the Thermal Oxidizer

2. This permit is issued based on the source being in compliance with 40 CFR 63, Subpart KK, National Emission Standards for the Printing and Publishing Industry, incorporated by reference herein.

This permit is issued based on the removal of flexographic presses FP2 and FP3.

If you have any questions on this, please call Bob Smet at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:RPS:jar

cc: Region 1  
USEPA Region V

217/782-2113

April 9, 1998

O'Shea Environmental Associates, Inc.  
Attn: Bill J. O'Shea, P.E.  
1 South 660 Midwest Road  
Oakbrook Terrace, Illinois 60181

Application No.: 94120012  
I.D. No.: 031440AHX  
Construction of: Flexible Packaging, 1950 Pratt Blvd., Elk Grove Village  
Letter Dated: February 27, 1998

The Illinois EPA hereby acknowledges the receipt of your above-referenced letter and confirms the withdrawal of your application for construction permit in accordance with your request.

If you have any questions concerning this matter, please contact Mary VonDeBur at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:MV:psj

cc: Region 1