



# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Robert M. Summers, Ph.D.  
Deputy Secretary

May 7, 2009

Mr. Brian O'Banion  
Fibre Box Association  
25 Northwest Point Boulevard  
Suite 510  
Elk Grove Village, IL 60007

Dear Mr. O'Banion:

The Maryland Department of the Environment (MDE) proposes to amend regulation COMAR 26.11.19.07 Paper, Fabric, Film, Foil, Vinyl, and Other Plastic Parts Coating. A draft copy of the regulation and a fact sheet are attached for your review. These amendments adopt the requirements of the Environmental Protection Agency's (EPA's) Control Techniques Guidelines (CTG) for paper, film and foil coating and may affect your facility.

EPA develops CTGs as guidance on control requirements for source categories. States may either incorporate the CTGs into their regulations or adopt more restrictive standards. MDE has proposed amending COMAR 26.11.19.07 to incorporate the CTG into the existing regulation. The CTG standards are applicable to coating lines that have the potential to emit 25 tons or greater per year of volatile organic compounds.

Once MDE formally proposes this amendment, there will be a public hearing scheduled and an opportunity to comment. Until then, if you have any questions or comments, please contact myself or Dr. Husain Waheed at 410-537-3240.

Sincerely,

Randy E. Mosier, Chief  
Regulations Development Division  
Air Quality Planning Program  
Air and Radiation Management Administration

Attachments

cc: Mr. George (Tad) S. Aburn, Jr., Director, Air and Radiation Management Administration  
Diane L. Franks, Program Manager, Air Quality Planning Program  
Frank Courtright, Program Manager, Air Quality Compliance Program  
Karen Irons, Program Manager, Air Quality Permits Program

Download Date

07-25-08

26.11.19.07

**.07 Paper, Fabric, Film, Foil, Vinyl, and Other Plastic Parts Coating.**

A. Definitions. In this regulation, the following terms have the meanings indicated:

(1) “Coating line” means any number or combination of adhesive, release, or pre-coat coating applicators, flash-off areas, and ovens which coat a continuous web, located between one or more web unwind/feed stations and one or more rewind/cutting stations, to apply a paper, film or foil products coating as a continuous layer across the entire width or any portion of the width of a web substrate, to:

(a) Provide a covering, finish, or functional or protective layer to a substrate;

(b) Saturate a substrate for lamination; or

(c) To provide adhesion between two substrates for lamination.

(2) “Coating solids applied” means the solids content of the coated paper, film or foil products coating as measured by EPA Method 24.

[(1)] (3) (text unchanged)

(4) “Flash-off area” means the area between two or more consecutive coating applicators or between a coating applicator and a drying oven.

[(2)] (5) (text unchanged)

(6) Paper, Film and Foil Products.

(a) "Paper, film and foil products" means any product made from paper, fabric, film, or foil surfaces or substrates manufactured for the following industry sectors:

(i) Pressure sensitive tape and labels (including fabric coated for use in pressure sensitive tapes and labels);

(ii) Photographic film;

(iii) Industrial and decorative laminates;

(iv) Abrasive products (including fabric coated for use in abrasive products); and

(v) Flexible packaging (including coating of non-woven polymer substrates for use in flexible packaging); and

(b) "Paper, film and foil products" also includes the following products:

(i) Corrugated and solid fiber boxes;

(ii) Die-cut paper, paperboard, and cardboard;

(iii) Converted paper and paperboard not elsewhere classified;

(iv) Folding paperboard boxes, including sanitary boxes;

(v) Manifold business forms and related products;

(vi) Plastic aseptic packaging; and

(vii) Carbon paper and inked ribbons.

(7) Paper, Film and Foil Products Coating.

(a) "Paper, film and foil products coating" means any coating applied to paper or fabric for use in pressure sensitive tapes and labels, film, or foil surfaces or substrates during the manufacture of paper, film and foil products:

(b) "Paper, film and foil products coating" includes any paper coating applied to a substrate used to manufacture paper, film and foil products to:

- (i) Provide a covering, finish, or functional or protective layer to a substrate;
- (ii) Saturate a substrate for lamination; or
- (iii) To provide adhesion between two substrates for lamination.

(c) "Paper, film and foil products coating" does not include:

- (i) Any paper coating applied individually or in a line with any offset lithographic, screen, letterpress, flexographic, rotogravure, or digital printing press; or
- (ii) Any paper coating applied by presses and on machine coaters that function as part of an in-line papermaking system.

[(2-1)] (8) (text unchanged)

(9) "Pressure sensitive tape and label surface coating" means a paper, film, foil or fabric coating that is applied to pressure sensitive tapes and labels.

[(3)] (10) (text unchanged)

[(4)] (11) (text unchanged)

[(5)] (12) (text unchanged)

B. (1) – (2) (text unchanged)

(3) A person who owns or operates coating lines with the potential to emit 25 tons or greater per year of VOC from coatings, prior to controls is subject to the requirements of §D of this regulation and is exempt from the requirements in §C of this regulation.

(4) A person who owns or operates paper, film and foil products coating installations is subject to the cleaning material standards in Regulation .02I of this chapter.

(5) This regulation does not apply to any adhesive application that is subject to the provisions of Regulation .15 of this chapter.

C. (text unchanged)

D. Emission Standards for Paper, Film and Foil Coating with VOC Emissions (Potential to Emit) of 25 Tons or Greater Per Year.

(1) A person who meets the applicability level of §B(3) of this regulation shall meet the emission standards in §D(2) of this regulation for each coating line installation.

(2) Emission Standards.

<u>Paper, Film And Foil Coating</u>	<u>Emission Standard (Ratio)</u>	
	<u>lb VOC/ lb solids or kg VOC/kg solids</u>	<u>lb VOC/lb coating or kg VOC/kg coating</u>
<u>Paper, Film And Foil Coating other than a Pressure Sensitive Tape and Label Surface Coating</u>	<u>0.40</u>	<u>0.08</u>

<u>Pressure Sensitive Tape and Label Surface Coating</u>	<u>0.20</u>	<u>0.06</u>
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(3) In lieu of meeting the standards in §D(2) of this regulation, a person may use add-on air pollution control equipment to reduce VOCs from a coating line by an overall capture and control efficiency of at least 90 percent, by weight.

(4) If air pollution control equipment is used, the following apply:

(a) If a thermal oxidizer is used, the combustion zone temperature shall be continuously monitored.

(b) If a catalytic oxidizer is used, inlet and exhaust gas temperatures shall be continuously monitored.

(c) If a carbon adsorption system or other control device is used, the Department shall approve the operating parameters to be continuously monitored.

(5) Operational records sufficient to demonstrate compliance with the requirements of this regulation shall be maintained as required by COMAR 26.11.19.02(F).



# ***Facts About...***

## **Amendments to — COMAR 26.11.19.07 Paper, Fabric, Film, Foil, Vinyl, and Other Plastic Parts Coating**

### **PURPOSE OF THESE AMENDMENTS**

These amendments adopt the requirements of the EPA's Control Techniques Guidelines (CTG) for paper, film and foil coating. EPA develops CTGs as guidance on control requirements for source categories. States can follow the CTGs or adopt more restrictive standards. MDE proposes to adopt new standards for paper, film and foil coating. Application method and work practice requirements will also be adopted. These amendments affect coaters of paper, film and foil.

### **BACKGROUND**

In 1977, EPA published a CTG for controlling VOC emissions from surface coating of paper. In October 1983, EPA promulgated the new source performance standards (NSPS) for surface coating of pressure sensitive tape and labels (1983 NSPS) which is a subset of the paper, film, and foil surface coating industry. In December 2002, EPA promulgated the National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating (2002 NESHAP).

The 1977 CTG, 1983 NSPS, and 2002 NESHAP provide information on the paper, film, and foil surface coating industry, VOC emissions, organic HAP emissions, available control technologies for addressing such emissions and the costs of available control option. The 1977 CTG recommends and the 1982 NSPS establishes VOC emission limits, whereas the 2002 NESHAP establishes organic HAP emission limits and does not address non-HAP VOC.

The paper, film and foil coatings product category listed under section 183(e) of the CAA includes coatings that are applied to paper, film, or foil surfaces in the manufacturing of several major product types: pressure sensitive tape and labels; photographic film; industrial and decorative laminates; abrasive products (including fabric coated for use in abrasive products) and flexible packaging (including coating of non-woven polymer substrates for use in flexible packaging). The category also includes coatings applied during miscellaneous coating operations for several products including: corrugated and solid fiber boxes; die-cut paper paperboard and cardboard; converted paper and paperboard; folding paperboard boxes, including sanitary boxes; manifold business forms and related products; plastic aseptic packaging; and carbon paper and inked ribbons.

Coating performed on or in-line with any offset lithographic, screen, letterpress, flexographic, rotogravure, or digital printing press is not part of the paper, film and foil coating category.

Cleaning materials are a source of VOC emitted by paper, film, and foil surface coating operations. Cleaning materials are used to remove excess coatings from coating equipment. These materials are typically mixtures of organic solvents. The cleaning material is commonly a solvent, or a mixture of solvents. Cleaning materials are used to wash the coating applicators and outsides of the coating machines, and to remove residues of excess coatings between job changes.

### Affected Sources

These proposed amendments affect sources that coat pressure sensitive tape and labels, photographic film, industrial and decorative laminates, abrasive products, flexible packaging, corrugated and solid fiber boxes, die-cut paper paperboard, cardboard, converted paper and paperboard, folding paperboard boxes, manifold business forms and related products, plastic aseptic packaging, and carbon paper and inked ribbons.

### Regulation Amendment

COMAR 26.11.19.07 is amended to set the VOC requirements for sources that have potential to emit at least 25 tons/year. A person subject to this regulation may either meet the VOC emission limits specified in the following table or use an add-on emission control device to reduce VOC emissions by 90%.

Paper, Film And Foil Coating	Emission Standard (Ratio)	
	lb VOC/ lb solids or kg VOC/kg solids	lb VOC/lb coating or kg VOC/kg coating
Paper, Film And Foil Coating other than a Pressure Sensitive Tape and Label Surface Coating	0.40	0.08
Pressure Sensitive Tape and Label Surface Coating	0.20	0.06

The standards for cleaning materials in .02I apply to all paper, film and foil coating installations.

### **Impact on Ambient Air Quality**

The proposed amendments set standards for coatings of paper, film and foil and cleaning materials. Emissions of VOC are expected to be reduced by 90 percent on a national basis from paper, film and foil coating operations as a result of the combination of NESHAP and CTG standards. This reduction will be much less in Maryland as MDE has already had regulations in place which have reduced VOC emissions from the coating of paper, film and foil. The maximum benefit will be provided during the ozone season when VOCs readily combine with NO<sub>x</sub> to form the pollutant ground level ozone.

### **Economic Impact**

These proposed regulatory amendments adopt the requirements of the CTG for paper, film and foil. The economic impact of these amendments has been estimated by EPA on a national level. Cost effectiveness is approximately \$1,200/ton of VOC controlled.

### **Small Business**

These amendments affect sources that engage in the coating of paper, film and foil. Economic impact on small business has been estimated by EPA to be small for reformulated materials on a national level.

### **Submission to EPA as Revision to Maryland's SIP (or 111(d) Plan, or Title V Program)**

This regulation will be submitted to the U.S. EPA for approval as a revision to Maryland's State Implementation Plan.

### **Are there other State or federal requirements that apply to these sources?**

These amendments adopt the requirements of the EPA's CTG for paper, film and foil coating. There are no other federal reasonably available control technology standards for this category. Multiple facilities are covered under this CTG and each may be subject to additional federal requirements.