R307-344. Paper, Film, and Foil Coatings.
R307-344-1. Purpose.

The purpose of this rule is to limit volatile organic compound (VOC) emissions from [roll, knife, and rotogravure coaters and drying ovens of] paper, film, and foil coating operations.


R307-344 applies to [sources] paper, film, and foil coating operations and related cleaning activities that use a combined 20 gallons or more of coating products and associated solvents per year and are located in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah and Weber counties [that have the potential to emit 2.7 tons per year or more of VOC, including related cleaning activities].


The following additional definitions apply to R307-344:

"As applied" means the VOC and solids content of the finishing material that is actually used for coating the substrate. It includes the contribution of materials used for in-house dilution of the finishing material.

["Coating" means a protective, functional, or decorative film applied in a thin layer to a surface. This term often applies to paints such as lacquers or enamels. It is also used to refer to films applied to paper, plastics, or foil.]

"Film coating" means any coating applied in a web coating process on any film substrate other than paper or fabric, including, but not limited to, typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap.

"Foil coating" means a coating applied in a web coating process on any foil substrate other than paper or fabric, including, but not limited to, typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap, but excluding coatings applied to packaging used exclusively for food and health care products for human and animal consumption.

["Knife coating" means the application of a coating material to a substrate by means of drawing the substrate beneath a blade that spreads the coating evenly over the width of the substrate.]

"Paper coating" means uniform distribution of coatings put on paper, film, foils and pressure sensitive tapes regardless of substrate. Related web coating processes on plastic film and decorative coatings on metal foil are included in this definition. Paper coating covers saturation operations as well as coating operations.

["Roll coating" means the application of a coating material to a substrate by means of hard rubber or steel rolls.]

"Roll printing" means the application of words, designs and pictures to a substrate usually by means of a series of hard rubber or steel rolls each with only partial coverage.

["Rotogravure coating" means the application of a uniform layer of material across the entire width of the web to substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.]

"Saturation" means dipping the web into a bath.

"Web" means a continuous sheet of substrate.

R307-344-4. VOC Content Limits.
No owner or operator shall apply coatings with a VOC content in excess of greater than the amounts specified in Table 1, unless the owner or operator uses an add-on control device as specified in R307-344-6.

### TABLE 1

<table>
<thead>
<tr>
<th>Category</th>
<th>VOC Emission Rates (lb/lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper, film and foil</td>
<td>0.08</td>
</tr>
<tr>
<td>Pressure sensitive tape and label</td>
<td>0.067</td>
</tr>
</tbody>
</table>


1. Control techniques and work practices are to be implemented at all times to reduce VOC emissions. Control techniques and work practices include:
   - Using tight fitting covers for open tanks;
   - Using covered containers for solvent wiping cloths;
   - Using collection hoods for areas where solvent is used for cleanup;
   - Minimizing spills of VOC-containing cleaning materials;
   - Conveying VOC-containing materials from one location to another in closed containers or pipes; and
   - Cleaning spray guns in enclosed systems.

2. All sources subject to R307-344 shall maintain records demonstrating compliance with R307-344-4 and R307-344-5.
   - Records shall include, but not limited to, inventory and product data sheets of all coatings and solvents subject to R307-344.
   - These records shall be available to the director upon request.

3. No person shall apply coatings unless these materials are applied with equipment operated according to the manufacturer's specifications, and by the use of one of the following methods:
   - Flow coater;
   - Roll coater;
   - Dip coater;
   - Foam coater;
   - Die coater;
   - Hand application methods;
   - High-volume, low pressure (HVLP) spray; or
   - Other application method capable of achieving at least 65% or greater transfer efficiency, as certified by the manufacturer.

4. Solvent cleaning operations shall be performed
using cleaning materials having a VOC [content (excluding water and solvents exempt from the definition of volatile organic compounds found in R307-101-2) of 0.21 pounds per gallon or less] composite vapor pressure no greater than 1 mm Hg at 20 degrees Celsius, unless an add-on control device is used as specified in R307-344-6.


1. If an add-on control system is used, the owner or operator shall install and maintain an incinerator, carbon adsorption, or any other emission control system, provided that the emission control system is operated and maintained in accordance with the manufacturer recommendations and maintain at least 90% or greater capture and control efficiency. The overall capture and control efficiency shall be determined using EPA approved methods, as follows.
   
   (a) The capture efficiency of a VOC emission control system's VOC collection device shall be determined according to EPA's "Guidelines for Determining Capture Efficiency," January 9, 1995 and 40 CFR Part 51, Appendix M, Methods 204-204F, as applicable.
   
   (b) The control efficiency of a VOC emission control system's VOC control device shall be determined using test methods in Appendices A-1, A-6, and A-7 to 40 CFR Part 60, for measuring flow rates, total gaseous organic concentrations, or emissions of exempt compounds, as applicable.
   
   (c) An alternative test method may be substituted for the preceding test methods after review and approval by the EPA Administrator.
   
2. The owner or operator of a control system shall provide documentation that the emission control system will attain the requirements of R307-344-6(1).

3. The owner or operator shall maintain records of key system parameters necessary to ensure compliance with R307-344-6. Key system parameters may include, but are not limited to, temperature, pressure and flow rates. Operator inspection schedule, monitoring, recordkeeping, and key parameters shall be in accordance with the manufacturer's recommendations, and as required to demonstrate operations are providing continuous emission reduction from the source during all periods that the operations cause emissions from the source.

4. The owner or operator shall maintain for a minimum of two years records of operating and maintenance sufficient to demonstrate that the equipment is being operated and maintained in accordance with the manufacturer recommendations.

**R307-344-7. Recordkeeping.**

1. The owner or operator shall maintain records of the following:
   
   (a) Records that demonstrate compliance with R307-344. Records shall include, but are not limited to, inventory and product data sheets of all coatings and solvents subject to R307-344.
   
   (b) If an add-on control device is used, records of key system parameters necessary to ensure compliance with R307-344-6.
      
      (i) Key system parameters shall include, but are not limited to, temperature, pressure, flow rates, and an inspection schedule.
      
      (ii) Key inspection parameters shall be in accordance with the manufacturer's recommendations, and as required to demonstrate operations are providing continuous emission reduction from the source during all periods that the operations cause emissions from the source.
   
2. All records shall be maintained for a minimum of 2 years.

3. Records shall be made available to the director upon request.
KEY:  VOC emission, paper coating, film coating, foil coating
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