

STATE VOLATILE ORGANIC COMPOUND REGULATIONS

The Consumer Products Rules

Revised: August 8, 2008

I. INTRODUCTION

During the last fifteen years, volatile organic compounds (VOC) have increasingly become recognized for their unfortunate role in the creation of ground-level ozone and particulate matter. VOCs that are emitted into the air photochemically react with other pollutants and create ozone, which is known to have an adverse effect on the health and welfare of humans, especially children and the elderly. Moreover, VOCs are present in many chemical based cleaning products.

As a result, numerous categories of cleaning products and their VOC content have become subject to regulation on both the federal and state level. In 1998, the U.S. EPA issued the "National Volatile Organic Compound Emission Standards for Consumer Products," establishing VOC content limits for 24 categories of consumer products. When the federal limits were adopted, California was the only state that maintained its own individual state-specific VOC limits. (Note: As of the date of this writing, the U.S. EPA is working on revisions to its national VOC regulations, which are anticipated to be based on the Model Rule issued by the Ozone Transport Commission.)

In 2000-2001, however, a number of states in the Northeast whose state implementation plans were not providing sufficient emissions reductions to attain the required 1-hour ozone standard joined together to form the Ozone Transport Commission (OTC). The OTC workgroup developed a VOC consumer products model rule and encouraged all OTC states to individually adopt it. The OTC Model Rule was patterned after the already-existing California ARB Consumer Products Rule. Over the course of several years, a number of states located in the Northeast adopted their own state VOC regulations based on the OTC Model Rule.

In more recent years, a number of Midwest states likewise have adopted VOC regulations based on the OTC Model Rule. Other Midwest states, such as Illinois, are planning on doing likewise.

The individual state VOC content limitations generally are more stringent than those established by the U.S. EPA. In addition, the individual state rules cover more product categories than the federal rules and regulations. The bottom line is that if you sell covered products in one of the states that enforce its own rule, you must comply with the state limits if they differ from those of the U.S. EPA.

The following is an overview of the various state VOC regulations.

A. Local Jurisdictions With VOC Limits For Consumer Products

1. California
2. Connecticut
3. Delaware
4. Maine
5. Massachusetts
6. Maryland
7. Michigan
8. New Hampshire
9. New Jersey
10. New York
11. Ohio
12. Pennsylvania
13. Virginia *
14. Washington D.C.

* Applies to the "Northern Virginia Volatile Organic Compound Emissions Control Area"

NOTE: A summary of the VOC limitations of each of these jurisdictions can be found online at www.issa.com/vocsum.

B. FIFRA-Regulated Pesticide Products: For products that are registered with EPA as pesticides pursuant to FIFRA, the effective date is one year after the general effective date.

II. GENERAL REQUIREMENTS

A. Regulations apply to any person who sells, supplies, offers for sale or manufactures for sale in the regulating state a consumer product in the state.

1. Sales of non-compliant products prohibited
2. Does not prohibit use of non-compliant products, except aerosol adhesives

B. Responsible Party: Company whose name appears on the product label. If more than one company name appears, the responsible party is the company that the product was "manufactured for" or "distributed by."

C. Volatile Organic Compound (VOC): Any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate.

D. VOC Content: Total weight of VOC in a product expressed as a percentage of total product weight.

1. Test Method: ARB Method 310 or alternative method that can accurately determine VOC content
 - a. California: Recent changes to Method 310
 - 1) Update procedures to conduct Method 310 analyses
 - 2) Clarify calculation used in determining the percent of VOC of samples containing LVP-VOC compounds
2. Product Formulation Data: May calculate VOC content using product formulation data if manufacturer has kept accurate and thorough records. The formula for calculating VOC content in this manner is as follows:

$$\frac{(\text{Total VOCs} - \text{Exempt VOCs}) \times 100}{\text{Total Weight of Contents}} = \text{Percent VOC Content}$$
3. Compartmentalized Aerosol Products (CA): Must include weight of driving propellant in total VOC calculation weight.

E. Consumer Product

1. Chemically formulated product used by household and institutional customers (including products used in general maintenance of a facility)
2. The term “consumer product” includes numerous institutional and household cleaning products.
3. Includes aerosol adhesives used in consumer, commercial and industrial applications.
4. Industrial Products: Products that are incorporated into or used exclusively in the construction or manufacture of goods are not consumer products and are not subject to VOC limits
5. Exemptions
 - a. Products manufactured for shipment and use outside of state
 - b. Product intended for shipment and use outside of state as long as manufacturer or distributor has taken reasonable prudent precautions to assure that the product is not distributed in the state

New Jersey: Shipping documentation must include a statement that the shipment is not for sale in NJ and that provides immediate shipping destination

- c. Fragrances up to combined level of 2% by weight

California: Also exempts fragrances in a "personal fragrance product."
 - d. Any LVP-VOC (does not apply to antiperspirant, deodorants and aerosol coatings)
 - e. Air fresheners that are comprised entirely of fragrance, less compounds not defined as VOCs or otherwise exempted
 - f. Insecticides containing at least 98% paradichlorobenzene.
 - g. Adhesives sold in containers of 1 fluid ounce or less
 - h. Bait station insecticides (not more than 0.5 ounce by weight and comprised of solid material feeding stimulants with less than 5% active ingredients)
 - i. MVOC content standards for antiperspirants and deodorants do not apply to ethanol (OTC states -- not specified in NY and NJ)
 - j. Requirements for antiperspirants and deodorants do not apply to VOCs that contain more than 10 carbon atoms per molecule and for which the vapor pressure is unknown or that have a vapor pressure of 2mm Hg or less at 20° C. (OTC States)
5. Aerosol Product: "A pressurized spray system that dispenses product ingredients by means of a propellant or by means of a mechanically induced force. Does not include pump sprays"

F. Products Diluted Prior to Use

- 1. If diluted with water or a non-solvent VOC: limits apply after the minimum recommended dilution has taken place
- 2. If diluted with any VOC solvent: Limits apply after the maximum recommended dilution has taken place.

G. Sell-Through

- 1. OTC States: Law specifically notes that "no person shall sell...any consumer product manufactured on or after (effective date) which contains VOCs in excess of the limits specified." Therefore, companies are permitted to sell non-compliant products after effective date if such products were manufactured prior to the effective date, and bear a date of manufacture.

2. California: Product may be sold for up to three-years after the effective date as long as date or manufacture appears on the label
 - a. Notification: Manufacturer must notify the purchaser in writing of the date on which the sell-through period ends if:
 - 1) Product is sold through distributor or retailer;
 - 2) Sell through period will expire 6 months or less from the date that the product is supplied;
 - 3) Product does not comply with the lowest standard; and
 - 4) Product is subject to a VOC limit with an effective date after December 31, 2004
 - b. Multi-Unit Packages: No sell-through period if multi-unit package is not labeled with individual units' date of manufacture or date code.

H. Innovative Products

Product may be exempt from specific VOC content limits if the manufacturer can demonstrate by clear and convincing evidence that:

1. Due to characteristic of formulation, design, delivery system, or other factor
2. Use of the product will result in less VOC emissions as compared to a product that complies with the limits or than would comply with the limits if reformulated
 - a. Compared product must be subject to same limits
 - b. Compared product must be of the same form
 - c. Compared product should have similar efficacy

Enforceable conditions will be established, including VOC content of the innovative product, application rates and other parameters

3. California issued innovative product exemptions may be effective in the OTC states. In such case, companies simply have to submit their CA innovative product exemption approval to the state.

In fact, New Jersey and Maine do not appear willing to grant an exemption on their own. Both states only appear to allow companies to take advantage of the innovative product exemption if they have already been granted one in California.

I. Variances ("Waivers")

A person who cannot comply with the limits because of extraordinary reasons beyond the person's reasonable control may apply for a variance. Must set forth the following information:

1. Specific grounds for the variance
2. Proposed date by which compliance will be achieved
3. Compliance report reasonably detailing the methods by which compliance will be achieved

A variance will not be granted unless:

1. Because of reasons beyond the reasonable control of the applicant, compliance would result in extraordinary economic hardship.
2. Public interest in mitigating the economic hardship outweighs public interest in avoiding increased emissions
3. Methods proposed to achieve compliance can reasonably be implemented

J. Alternative Control Plan: An emissions averaging program that allows ACP responsible parties to buy, sell and trade emissions "surplus reductions." Under an ACP, total emissions from all regulated consumer products are averaged.

III. ADMINISTRATIVE REQUIREMENTS

A. Most Restrictive Limit: Generally, if a product falls under more than one product category, the most restrictive VOC limit applies

1. Principal Display Panel: Whether a product qualifies under more than one category depends on representations made only on the principal display panel in the following jurisdictions: CT, DC, DE, NH, NJ, NY, PA, VA. Also please note that this rule is applicable in MA, ME and OH until January 1, 2009.
2. Representations Made Anywhere on the Container or Package: In all other jurisdictions (CA, MD, MI—and after January 1, 2009: MA, ME, and OH) the determination as to whether a product qualifies under more than one category is based on representations made anywhere on the container or packaging of a product.
3. In general this rule does not apply to general purpose cleaners, antiperspirant/ deodorant products, insecticide foggers or lawn and garden insecticides.

4. When a product "qualifies" under more than one product category and the definition of one of the two applicable categories specifically excludes the second category, the most restrictive limit applies (Example: a product meets the definition of Category A and Category B. The definition of Category A specifically excludes Category B. The product would still be subject to the most restrictive limit, regardless of the exclusion)

B. Labeling: A consumer product must be labeled with either:

1. The day, month and year of manufacture; or
2. A code indicating the date of manufacture. In the event that a date code is used, generally the manufacturer must file an explanation of the code with the appropriate authority.

However, in CA, MA, MD, ME, MI and OH, no explanation of the date code need be filed if a particular format is used. Specifically, if in using a date code, the format "YY DDD" is used no explanation of the code is necessary. In this date code, "YY DDD" is intended to communicate the following:

- a) YY = Two digits representing the year
- b) DDD = Three digits representing the day of the year

3. Six states require that the date or code appear on the label no later than 12 months prior to the effective date of the applicable limit (CA, DE, MD, NH, NY, PA). Wash D.C. requires that the information appear on the label at least 9 months prior to the effective date. Maine and Virginia require that labels include the date or code when the limit becomes effective.
4. Must be displayed such that it is readily observable without irreversibly disassembling any portion of the container or packaging. The date or code may appear on the bottom of the container.
5. Multi-Unit Packaging (California)
 - a. Should include date of manufacture of the individual product units
 - b. If date of manufacture of individual product units is not provided, the VOC limit on the date the multi-unit packaging is sold applies
 - c. May display the date of assembly of the multi-unit packaging. The date of assembly is then considered the date of manufacture for all individual product units.

6. Exemptions: Date labeling does not apply to:
 - a. Samples
 - 1) California: personal fragrance products if 2 ml or less
 - 2) New Jersey: all samples offered free of charge
 - b. Products containing VOCs at 0.10% by weight or less
 - c. Pesticide products registered with the U.S. EPA pursuant to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) such as disinfectants, sanitizers, insecticides, etc.

C. Labeling: Aerosol Adhesives and Other Products

1. Aerosol Adhesives: In addition to the date of manufacture or date code, the following jurisdictions impose additional labeling requirements for aerosol adhesives: DC, DE, NH, NJ, NY, PA, VA. Specifically, the labels of aerosol adhesives must include:
 - a. Product category or abbreviation of category
 - b. Applicable VOC standard for the product expressed as % by weight
 - c. If the product is classified as a special purpose spray adhesive, the applicable substrate and/ or application that qualifies the product as a special purpose spray adhesive.
2. Other Product Categories: In the states of CA, CT, ME, MI, MD, and OH, the aforementioned labeling requirements also apply to Adhesive Removers, Electronic Cleaners, Electrical Cleaners, Energized Electrical Cleaners, and Contact Adhesives. NOTE: In regard to Energized Electrical Cleaners, the label need not display the applicable VOC standard.
3. Information must be displayed so that it is readily observable without removing or disassembling any portion of the container or packaging

D. Reporting

1. Responsible parties are required to provide information to the relevant authority upon request
 - a. Company information
 - b. Applicable product category
 - c. Annual sales
 - d. Product-specific information

- e. For products containing a propellant
 - 1) Weight of the propellant, given as a percentage of the weight of the product
 - 2) Identification of the type of propellant
- 2. Record Retention Period: Records must be kept for three years except in New Jersey where certain records must be kept for five years
- 3. Products that contain Perchloroethylene or Methylene Chloride (1% or more by weight): Specific information must be reported on an annual basis in CA, MD, NH, NY, VA and DC (By March 1) (Effective until 2011)
 - a. Product brand name and a copy of the product label
 - b. Product category
 - c. Product form
 - d. Total annual sales
 - e. Weight percentage of Perc and MeCl
- 4. New Jersey: Products Not Subject to VOC Limits

Manufacturers of consumer products that are not subject to a specific VOC limit, but which contain greater than 5% VOC and have a vapor pressure of sum of partial pressures of organic substances of 0.02 lbs per square inch absolute or greater, measured at standard conditions, are required to keep proper records.

E. Registration (New Jersey)

- 1. Manufacturers of consumer products that are subject to the NJ VOC Law are required to register with the NJ Dept of Environmental Protection
- 2. Registration must be submitted electronically and companies are required to use the form available at <http://www.state.nj.us/dep/baqp>
- 3. Registration required by January 1, 2005 for all products sold before that date. For all new products that are introduced after Jan 1, 2005, a company must register before the product is sold.
- 4. Registration should include the following information:
 - a. Name of manufacturer
 - b. Full mailing address of manufacturer
 - c. Name and address of contact person
 - d. Consumer product category to which the regulated product belongs

- e. Information about any exemption or variance that is being taken advantage of
 - f. Explanation of date-code, if used
5. Registration information may not be claimed as confidential

IV. SPECIAL REQUIREMENTS

A. Products Containing Ozone-Depleting Compounds

- 1. Ozone-Depleting Compounds Prohibited: Including CFC-11, CFC-12, CFC-113, CFC-114, CFC-115, halon 1211, halon 1301, halon 2402, HCFC-22, HCFC-123, HCFC-124, HCFC-141B, HCFC-142B, 1,1,1,-Trichloroethane and carbon tetrachloride
- 2. Prohibition does not apply to an existing product formulation that complies with the applicable VOC limit or an existing product formulation that is reformulated to comply with the limit as long as the ozone-depleting compound content does not increase
- 3. Prohibition does not apply to impurities that are present in an amount that is equal to or less than 0.01% by weight of the product

B. Aerosol Adhesives

- 1. Standards apply to all uses of aerosol adhesives, including consumer, industrial and commercial
- 2. May not sell, supply or manufacture an aerosol adhesive that contains
 - a. Methylene Chloride
 - b. Perchloroethylene
 - c. Trichlorethylene
- 3. Prohibition applies in all states except Delaware, Ohio and Pennsylvania

C. Consumer Automotive Products: California prohibits the presence of Perchloroethylene, Methyl Chloride and Trichloroethylene

- 1. Automotive Consumer Product
 - a. Brake cleaners
 - b. Carburetor or fuel-injection air intake cleaners
 - c. Engine degreasers
 - d. General purpose degreasers that are intended for "use in automotive maintenance and repair activities (AMR)"

General purpose degreasers are considered intended for use in automotive maintenance and repair activities unless product label or literature specifically excludes their use in such activities

2. AMR facilities prohibited from using products that contain any of the three prohibited chlorinated air solvents (effective June 30, 2005)

D. Adhesive Removers, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers and Graffiti Removers (CA, CT, MA, ME, MI, MD)

1. May not sell, supply or manufacture for use in CA, CT, MA, ME, MI, MD if they contain:
 - a. Methylene Chloride
 - b. Perchloroethylene
 - c. Trichloroethylene
2. Prohibited substances may be present if an impurity and present in an amount equal to or less than 0.1% by weight

E. Solid Air Fresheners and Toilet/ Urinal Care Products

In the following states, the sale of solid air freshener or toilet/ urinal care products that contain para-dichlorobenzene is prohibited: CA, CT ('09), MA, MI, MD ('09), ME ('09).

- F. Antiperspirants and Deodorants:** OTC states specifically prohibit the sale and manufacture of antiperspirants and deodorants that contain toxic air contaminants

V. ENFORCEMENT

- A. Penalties:** Persons who fail to comply with the state VOC law are potentially subject to both civil and criminal penalties
- B. Every day a non-complying product is offered for sale constitutes a separate violation**
- C. State authority may require mandatory recall of products**
- D. Civil Administrative Penalty Schedule (New Jersey)**
1. Less than 25% over standard: \$300; \$600; \$1,500; \$4,500
 2. From 25% to 50% over standard: \$600; \$1,200; \$3,000; \$9,000
 3. More than 50% over standard: \$1,000; \$2,000; \$5,000; \$15,000

4. Toxic or aerosol content of aerosol adhesives: \$500; \$1,000; \$2,500; \$7,500
 5. Registration requirements: \$500; \$1,000; \$2,500; \$7,500
 6. Date or date-code violation: \$2,000; \$4,000; \$10,000; \$30,000
 7. Recordkeeping: \$4,000; \$8,000; \$20,000; \$50,000
- E. California:** Health & Safety Code gives ARB authority to sample consumer products to determine compliance. Fines of up to \$50,000 may be assessed for a violation of the state air pollution regulations.

VI. IMPLICATIONS OF NEW LIMITS

- A. Manufacturers forced to reformulate products to meet limits**
- a. VOC solvents and propellants replaced
 - b. Switch to water-based formulations
 - c. Increase product solids
 - d. Changes valve, container or delivery system

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