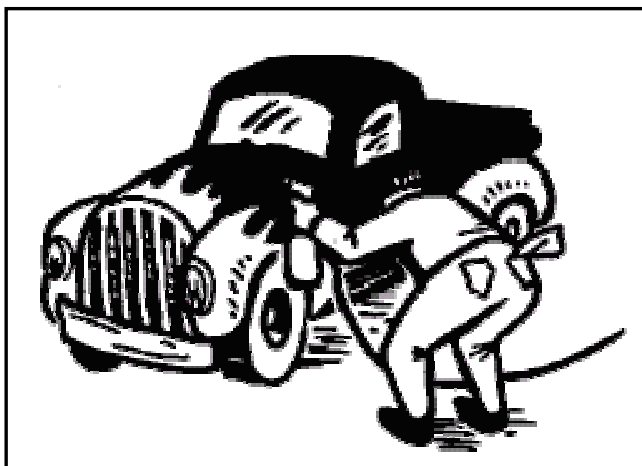


VOC Compliance for Auto Body Shops



VOC Regulations: N.J.A.C. 7:27-16.12

As of June 29, 2004, new air regulations took effect that directly impact and regulate operations conducted at auto body shops. These regulations include:

- ◆ Maximum allowable Volatile Organic Compound (VOC) limits for surface coating products and record keeping of this
- ◆ Surface coating application methods
- ◆ Cleaning of surface coating application products
- ◆ Housekeeping measures

<p>Acceptable Methods of Surface Coating Application (use any one method or combination of these)</p>
<ol style="list-style-type: none"> 1. high volume low pressure (HVLV) spray 2. airless spray 3. roller 4. brush 5. cotton – tipped swab 6. flow/curtain 7. dip 8. electrodeposition 9. electrostatic spray
<p>➤ Any other method must be NJDEP and EPA approved (Contact the SBeAP for more info)</p>

Record Keeping Requirements

Keep a record at the facility of the VOC content of each coating used. VOC content can be calculated using the attached formulas. It can also be found automatically via computerized paint formulation programs (contact your local supplier or paint manufacturer). These records shall be readily available to the NJDEP upon their request.

Housekeeping Requirements

- ◆ The following materials are to be kept in containers that do not absorb their contents nor leak:
 - Fresh and used surface coatings
 - All solvents
 - VOC containing additives
 - Any other VOC containing materials
 - i.e. wastes, applicators etc. that may contain any of the above
- ◆ These containers should be closed and sealed 24/7 unless they are being filled or emptied

<p>Acceptable Methods of Surface Coating Application Tool Cleaning (use only one of the following)</p>
<ol style="list-style-type: none"> 1. enclosed spray gun cleaning system 2. unatomized discharge of remaining coating into paint waste container 3. disassembly of tool and cleaning of parts in a vat 4. atomized spray of cleaning solvent into a paint waste container that can capture atomized emissions
<p>➤ Items 1-3 must be kept closed when not in use</p>

Training Requirements

- ◆ Anyone who handles or uses the following items must first complete a training program (contact your local college, university or technical school)
 - Coating materials
 - Solvents, including cleaning solvents
 - VOC containing additives
 - VOC containing waste materials

Maximum Allowable VOC Content

Coating Type	Limit	
	lbs/gal	g/L
Automotive pretreatment	6.5	780
Automotive primer-surfacer	4.8	580
Automotive primer-sealer	4.6	550
Automotive topcoat:		
single stage topcoat	5.0	600
2 stage basecoat/clearcoat	5.0	600
3 or 4 stage basecoat/clearcoat	5.2	630
Automotive multi-colored topcoat	5.7	680
Automotive specialty	7.0	840

Calculating VOC Content

Single Layer Coat:

$$\text{VOC} = \frac{(W_v + W_a - W_w - W_n)}{(V + V_a - V_w - V_n)}$$

Multi Layer Coat (basecoat, midcoat[s], topcoat):

$$\text{VOC}_{\text{multi}} = \frac{\text{VOC}_{\text{bc}} + \sum_{i=0}^M \text{VOC}_{\text{mci}} + 2(\text{VOC}_{\text{cc}})}{M + 3}$$

Explanation of variables & units of measure

VOC = the VOC content of the given surface coating: pounds per gallon (lbs/gal) or grams per liter (g/l)

W_v = mass of total volatiles: pounds or grams

W_a = mass of total VOC in additives, or other items that are added to the surface coating material before it is applied: pounds or grams

W_w = mass of water in (if any): pounds or grams

W_n = mass of any non-VOC solvent: pounds or grams

V = total volume of surface coating material: gallons or liters

V_a = volume of VOC containing additives or other materials that are added to the surface coating material before it is applied: gallons or liters

V_w = volume of water (if any): gallons or liters

V_n = volume of any non-VOC solvent: gallons or liters

VOC_{multi} = VOC content of multi layer coat: pounds per gallon (lbs/gal) or grams per liter (g/l)

VOC_{bc} = VOC content of basecoat: lbs/gal or g/l

VOC_{mci} = VOC content of a given midcoat: lbs/gal or g/l

VOC_{cc} = VOC content of the clearcoat: lbs/gal or g/l

i = a given midcoat

M = total number of midcoats

Exemptions from Cleaning, Housekeeping and Training Requirements

- ♦ Applying a surface coating with an airbrush for the purpose of identification i.e. stenciling, lettering etc.
- ♦ Applying a surface coating that is sold in non-refillable aerosol containers

Contact Information and Additional Resources

Small Business Environmental Assistance Program:

TEL: (609) 292-3600 or Toll Free: (877) 753 1151
FAX: (609) 777-1330
www.nj.gov/dep

Air Regulations

NJDEP - Air Quality Permitting Program
(609) 292-6716
www.nj.gov/dep/aqpp

Hazardous Waste

EPA RCRA ID# (212) 637-4106
NJDEP NJX ID# (609) 292-7081

Compliance Assistance Program

NJDEP - GreenStart
(609) 633-0727

Alliance of Auto Service Providers of NJ

(732) 922-8909
www.aaspnj.org

Automotive Compliance Information

1 (888) GRN-LINK
www.ccar-greenlink.org

Transportation Compliance Assistance Center

1 (888) 459-0656
www.transource.org

Paints and Coatings Center

908-755-7753
www.paintcenter.org

Peaks to Prairies Pollution Prevention Info

(406) 994-3451
www.peakstoprairies.org/p2bande/autobody

Iowa Waste Reduction Center

1-800-422-3109
www.iwrc.org

This document does not replace or supercede N.J.A.C. 7:27-16.12, it has been developed to provide guidance on air regulations that affect auto body shops in NJ. For a copy of the current rules please visit: www.state.nj.us/dep/aqm/rules.htm

