

# **ARTICLE 3: MISCELLANEOUS VOLATILE ORGANIC COMPOUND EMISSION STANDARDS**

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## **SECTION 3.01 CUTBACK ASPHALT PAVING** Adopted 03/13/80 (462) Revised/Renumbered 06/13/91 (700)

- (a) It shall be unlawful for any person to cause or allow the use of cutback asphalt in paving during the months of June, July, August, and September, except as provided for in Section 3.01(b).
- (b) The following paving uses and applications of cutback asphalts are permitted during all months of the year:
  - (1) As a penetrating prime coat on aggregate bases prior to paving.
  - (2) The manufacture of patching mixes used exclusively for pavement maintenance and needed to be stockpiled for times longer than one month.
  - (3) All paving uses when the temperature during application is below 10°C (50°F).

## **SECTION 3.02 VOLATILE ORGANIC COMPOUND STORAGE TANKS** Adopted 03/13/80 (462) Revised 12/11/80 (482), 06/13/91 (700), Revised/Renumbered 07/08/99 (885)

- (a) This section shall apply to all stationary storage tanks with a capacity of 40,000 gallons (151,400 liters) or greater storing volatile organic compounds with a true vapor pressure of 1.5 pounds per square inch (10.5 kPa) or greater at actual monthly average storage temperatures.
- (b) It shall be unlawful for any person to cause or allow such storage unless the storage tank is a pressure tank maintaining working pressures sufficient at all times to prevent organic vapor loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices:
  - (1) An external floating roof, consisting of a pontoon-type or double deck-type cover that rests on the surface of the liquid contents at all times and is equipped with a closure device between the tank shell and the roof edge. The closure device shall consist of two seals, a primary seal and a rim mounted secondary seal above the primary; or
  - (2) A fixed roof with an internal floating-type cover that rests on the surface of the liquid contents at all times and is equipped with a closure device. The closure device shall prevent the emission of organic vapors such that the concentration of such vapors in the vapor space above the internal floating roof does not exceed 50% of the lower explosive limit (LEL) measured as propane; or
  - (3) A fixed roof tank with control equipment that reduces emissions by 95% or greater.

- (c) All primary seals or closure devices shall meet the following requirements:
  - (1) The primary seal shall contain no visible holes, tears, or other openings.
  - (2) No gap between the tank shell and the primary seal shall exceed 1½ inches (3.8 cm). No continuous gap greater than ⅛ inch (0.32 cm) shall exceed 10% of the circumference of the tank. The cumulative length of all primary seal gaps exceeding ½ inch (1.3 cm) shall not be more than 10% of the circumference; and the cumulative length of all primary seal gaps exceeding ⅛ inch (0.32 cm) shall not be more than 40% of the circumference.
- (d) All secondary seals or closure devices shall meet the following requirements:
  - (1) There shall be no visible holes, tears, or other openings in the secondary seal or seal fabric;
  - (2) The secondary seal shall be intact and uniformly in place around the circumference of the floating roof between the roof and the tank wall; and
  - (3) No gap between the tank shell and the secondary seal shall exceed ½ inch (1.3 cm). The cumulative length of all gaps exceeding ⅛ inch (0.32 cm) in width between the secondary seal and the tank wall shall not exceed 5% of the circumference of the tank.
- (e) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves shall be:
  - (1) Equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and
  - (2) Equipped with projections into the tank that remain below the liquid surface at all times.
- (f) Automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.
- (g) Rim vents shall be set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting.
- (h) Emergency roof drains shall be provided with slotted membrane fabric covers or equivalent that cover at least 90% of the area of the opening.
- (i) Routine inspections shall be performed by the owner or operator as follows:
  - (1) For external floating roof tanks, conduct a semiannual visual inspection of all seals and closure devices and measure the primary and secondary seal gap annually;
  - (2) For internal floating roof tanks, visually inspect all seals and measure the concentration of VOC in the vapor space above the internal floating roof semiannually; and

- (3) Maintain records of the results of any inspections performed for a period of 2 years after the date on which the record was made.

### SECTION 3.03 CAN AND PAPER COATING OPERATIONS

Adopted 03/13/80 (462)  
Revised 12/11/80 (482), Revised/Renumbered 06/13/91 (700), Revised 02/10/94 (777)

It shall be unlawful for any person to cause or allow the application of any coating from the following processes that has a VOC content in excess of the following limits:

Process	VOC Content (excluding water)	
	Grams/Liter	(Lbs/Gal)
Can Coating		
Basecoat (exterior and interior) and overvarnish	340	(2.8)
Interior body spray, exterior end, spray or roll coat	510	(4.2)
End sealing compound	440	(3.7)
Paper Coating	350	(2.9)

### SECTION 3.04 MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS

Adopted 06/13/91 (700)  
Revised 12/09/93 (769), 07/24/03 (1002)

- (a) It shall be unlawful for original equipment manufacturers (OEMs) to apply any coating with a VOC content in excess of the following limits to motorized vehicles, their parts and components, or equipment designed to be pulled by motorized vehicles:

Type of Coating	VOC Content (excluding water)	
	Grams/Liter	(Lbs/Gal)
Pretreatment Wash Primer	780	(6.5)
Precoat	780	(6.5)
Primer/Primer Surfacer	720	(6.0)
Primer Sealer	720	(6.0)
Topcoat	720	(6.0)
Metallic/Iridescent Topcoat	720	(6.0)

- (b) It shall be unlawful for any person to apply any specialty coating with a VOC content in excess of 840 grams/liter (7.0 lbs/gal), excluding water. Use of all specialty coatings except antiglare/safety coatings shall not exceed 5.0% of all coatings applied on a monthly basis. Specialty coatings are coatings that

are necessary due to unusual job performance requirements and whose VOC content exceeds 630 grams/liter.

- (c) The VOC content of each coating regulated by this section shall be available to Agency personnel upon request. Monthly records shall be maintained to demonstrate compliance with the standards specified in Section 3.04(a) and 3.04(b) of this regulation. The records shall include type of paint, quantity applied, and how the coating qualifies as specialty. The records shall be made available to Agency personnel upon request.
- (d) It shall be unlawful for any person to apply any VOC-containing material to any motorized vehicles, their parts and components, or equipment designed to be pulled by motorized vehicles unless the coating is applied by the use of one of the following methods:
  - (1) High volume, low pressure (0.1 to 10 psig air pressure for atomization) spray equipment,
  - (2) Electrostatic spray equipment,
  - (3) Flow coat,
  - (4) Dip coat,
  - (5) Brush coat,
  - (6) Hand-held aerosol cans,
  - (7) Roll coat, or
  - (8) Air brush.
- (e) It shall be unlawful for any person to use any VOC-containing material for the cleanup of spray equipment, including paint lines, unless equipment for collecting the VOC-containing material and minimizing the evaporation to the atmosphere is employed. All VOC-containing materials that are flushed through the spray equipment or lines during cleanup shall be collected in a closed container.
- (f) It shall be unlawful for any person to use open containers for the storage or disposal of VOC-containing materials. Such containers and tanks shall be kept closed except when being cleaned or when materials are being added, mixed, or removed. Closed containers for solvent rag or paper disposal are required. Empty containers as defined in WAC 173-303-160 are exempt.

**SECTION 3.05 GRAPHIC ARTS SYSTEMS** Adopted 12/11/80 (482)  
Revised 12/09/93 (769)

- (a) This section shall apply to all rotogravure and flexographic printing facilities that use more than 90 megagrams (100 tons) per year of volatile organic compounds.

- (b) Machines that have both coating units (apply a uniform layer of material across the entire width of a web) and printing units (forming words, designs and pictures) shall be included under this section rather than Section 3.03 of this regulation.
- (c) It shall be unlawful for any person to operate a facility subject to this regulation unless:
  - (1) The volatile fraction of ink, as it is applied to the substrate, contains 25% by volume or less of volatile organic compounds;
  - (2) The ink, as it is applied to the substrate, less water, contains 60% by volume or more nonvolatile material; or,
  - (3) The owner or operator installs and operates:
    - (A) A capture system that shall collect at least:
      - (i) 75% of the emissions from a publication rotogravure process; or
      - (ii) 65% of the emissions from a packaging rotogravure process; or
      - (iii) 60% of the emissions from a flexographic process; and
    - (B) Control equipment that reduces the volatile organic compound emissions from the capture system by at least 90% by weight.

**SECTION 3.08 POLYESTER, VINYLESTER, GELCOAT, AND RESIN OPERATIONS**

Adopted 06/13/91 (700)  
Revised 12/09/93 (769)

- (a) This section shall apply to manufacturing operations involving the use of polyester, vinylester, gelcoat, or resin in which the styrene monomer is a reactive monomer for the resin.
- (b) It shall be unlawful for any person to cause or allow the application of polyester resin, vinylester resin, gelcoat, or any other resin unless the operation is conducted inside an enclosed area that is registered with the Agency. The exhaust from the operation shall be vented to the atmosphere through a vertical stack. For spray-coating applications of polyester resin, vinylester resin, gelcoat, or any other resin, the enclosed area shall incorporate a dry filter to control the overspray.
- (c) It shall be unlawful for any person to use a chopper gun or spray gun to apply polyester resin, vinylester resin, gelcoat, or any other resin, unless the coating is applied by the use of one of the following methods:
  - (1) High volume, low pressure (0.1 to 10 psig air pressure for atomization) spray equipment,
  - (2) Electrostatic spray equipment,
  - (3) Airless spray equipment, or
  - (4) Air-assisted airless spray equipment.

- (d) The provisions of Section 3.08(c) shall not apply to touchup and repair using a hand-held, air atomized spray gun that has a container for resin as part of the gun.
- (e) It shall be unlawful for any person to use any VOC-containing material for the cleanup of spray equipment, including resin lines, unless equipment for collecting the VOC-containing material and minimizing the evaporation to the atmosphere is employed. All VOC-containing materials that are flushed through the spray equipment or lines during cleanup shall be collected in a closed container.
- (f) It shall be unlawful for any person to use open containers for the storage or disposal of VOC-containing materials. Such containers and tanks shall be kept closed except when being cleaned or when materials are being added, mixed, or removed. Closed containers for solvent rag or paper disposal are required. Empty containers as defined in WAC 173-303-160 are exempt.

**SECTION 3.09 AEROSPACE COMPONENT COATING OPERATIONS**

Adopted 12/11/80 (482)

Revised 02/11/82 (510), 06/13/91 (700), 12/09/93 (769)

- (a) This section shall apply to any operation in which coatings are applied to aerospace components.
- (b) It shall be unlawful for any person to cause or allow the application of any coating specified below that contains in excess of the following limits:

Type of Coating	VOC Content (excluding water)	
	Grams/Liter	(Lbs/Gal)
Military Aerospace Topcoat	420	(3.5)
Commercial Aerospace Topcoat	420	(3.5)
Military Aerospace Primer	350	(2.9)
Commercial Aerospace Primer	350	(2.9)
Temporary Protective Coating	250	(2.1)

- (c) It shall be unlawful for any person to cause or allow the application of any coating listed in Section 3.09(b) unless the coating is applied by the use of one of the following methods:
  - (1) High volume, low pressure (0.1 to 10 psig air pressure for atomization) spray equipment,
  - (2) Electrostatic spray equipment,
  - (3) Flow coat,
  - (4) Dip coat,
  - (5) Brush coat,

- (6) Trowel coat,
  - (7) Hand-held aerosol cans,
  - (8) Roll coat,
  - (9) Electrodeposition,
  - (10) Curtain coat, or
  - (11) Air brush.
- (d) It shall be unlawful for any person to use any VOC-containing material for the cleanup of spray equipment, including paint lines, unless equipment for collecting the VOC-containing material and minimizing the evaporation to the atmosphere is employed. All VOC-containing materials that are flushed through the spray equipment or lines during cleanup shall be collected in a closed container.
- (e) It shall be unlawful for any person to use open containers for the storage or disposal of VOC-containing materials. Such containers shall be kept closed except when being cleaned or when materials are being added, mixed, or removed. Closed containers for solvent rag or paper disposal are required. Empty containers as defined in WAC 173-303-160 are exempt.
- (f) The VOC limit for commercial aerospace topcoat in Section 3.09(b) shall become effective January 1, 1994, except for those topcoat tints that have not been qualified as of that date. All commercial aerospace topcoats must meet the VOC limit no later than January 1, 1995.