

§ 60.491

40 CFR Ch. I (7-1-07 Edition)

§ 60.491 Definitions.

(a) All terms which are used in this subpart and are not defined below are given the same meaning as in the Act and subpart A of this part.

(1) *Beverage can* means any two-piece steel or aluminum container in which soft drinks or beer, including malt liquor, are packaged. The definition does not include containers in which fruit or vegetable juices are packaged.

(2) *Exterior base coating operation* means the system on each beverage can surface coating line used to apply a coating to the exterior of a two-piece beverage can body. The exterior base coat provides corrosion resistance and a background for lithography or printing operations. The exterior base coat operation consists of the coating application station, flashoff area, and curing oven. The exterior base coat may be pigmented or clear (unpigmented).

(3) *Inside spray coating operation* means the system on each beverage can surface coating line used to apply a coating to the interior of a two-piece beverage can body. This coating provides a protective film between the contents of the beverage can and the metal can body. The inside spray coating operation consists of the coating application station, flashoff area, and curing oven. Multiple applications of an inside spray coating are considered to be a single coating operation.

(4) *Overvarnish coating operation* means the system on each beverage can surface coating line used to apply a coating over ink which reduces friction for automated beverage can filling equipment, provides gloss, and protects the finished beverage can body from abrasion and corrosion. The overvarnish coating is applied to two-piece beverage can bodies. The overvarnish coating operation consists of the coating application station, flashoff area, and curing oven.

(5) *Two-piece can* means any beverage can that consists of a body manufactured from a single piece of steel or aluminum and a top. Coatings for a two-piece can are usually applied after fabrication of the can body.

(6) *VOC content* means all volatile organic compounds (VOC) that are in a coating. VOC content is expressed in

terms of kilograms of VOC per liter of coating solids.

(b) Notations used under §60.493 of this subpart are defined below:

C_a =the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million as carbon)

C_b =the VOC concentration in each gas stream entering the control device (parts per million as carbon)

D_c =density of each coating, as received (kilograms per liter)

D_d =density of each VOC-solvent added to coatings (kilograms per liter)

D_r =density of VOC-solvent recovered by an emission control device (kilograms per liter)

E =VOC destruction efficiency of the control device (fraction)

F =the proportion of total VOC emitted by an affected facility which enters the control device to total emissions (fraction)

G =the volume-weighted average of VOC in coatings consumed in a calendar month per volume of coating solids applied (kilograms per liter of coating solids)

H_c =the fraction of VOC emitted at the coater and flashoff areas captured by a collection system

H_h =the fraction of VOC emitted at the cure oven captured by a collection system

L_c =the volume of each coating consumed, as received (liters)

L_d =the volume of each VOC-solvent added to coatings (liters)

L_r =the volume of VOC-solvent recovered by an emission control device (liters)

L_s =the volume of coating solids consumed (liters)

M_d =the mass of VOC-solvent added to coatings (kilograms)

M_o =the mass of VOC-solvent in coatings consumed, as received (kilograms)

M_r =the mass of VOC-solvent recovered by emission control device (kilograms)

N =the volume-weighted average mass of VOC emissions to atmosphere per unit volume of coating solids applied (kilograms per liter of coating solids)

Q_a =the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour)

Q_b =the volumetric flow of each gas stream entering the control device (dry standard cubic meters per hour)

R =the overall emission reduction efficiency for an affected facility (fraction)

S_c =the fraction of VOC in coating and diluent VOC-solvent emitted at the coater and flashoff area for a coating operation

S_h =the fraction of VOC in coating and diluent solvent emitted at the cure oven for a coating operation

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V_s =the proportion of solids in each coating, as received (fraction by volume)

W_o =the proportion of VOC in each coating, as received (fraction by weight).

[48 FR 38737, Aug. 25, 1983, as amended at 65 FR 61763, Oct. 17, 2000]

§ 60.492 Standards for volatile organic compounds.

On or after the date on which the initial performance test required by §60.8(a) is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge of VOC emissions to the atmosphere that exceed the following volume-weighted calendar-month average emissions:

- (a) 0.29 kilogram of VOC per litre of coating solids from each two-piece can exterior base coating operation, except clear base coat;
- (b) 0.46 kilogram of VOC per litre of coating solids from each two-piece can clear base coating operation and from each overvarnish coating operation; and
- (c) 0.89 kilogram of VOC per litre of coating solids from each two-piece can inside spray coating operation.

§ 60.493 Performance test and compliance provisions.

(a) Section 60.8(d) does not apply to monthly performance tests and §60.8(f) does not apply to the performance test procedures required by this subpart.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under §60.8(a) and thereafter a performance test each calendar month for each affected facility.

(1) The owner or operator shall use the following procedures for each af-

ected facility that does not use a capture system and a control device to comply with the emission limit specified under §60.492. The owner or operator shall determine the VOC-content of the coatings from formulation data supplied by the manufacturer of the coating or by an analysis of each coating, as received, using Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coating to determine the VOC content of coatings using Method 24 or an equivalent or alternative method. The owner or operator shall determine from company records the volume of coating and the mass of VOC-solvent added to coatings. If a common coating distribution system serves more than one affected facility or serves both affected and exiting facilities, the owner or operator shall estimate the volume of coating used at each facility by using the average dry weight of coating, number of cans, and size of cans being processed by each affected and existing facility or by other procedures acceptable to the Administrator.

(i) Calculate the volume-weighted average of the total mass of VOC per volume of coating solids used during the calendar month for each affected facility, except as provided under paragraph (b)(1)(iv) of this section. The volume-weighted average of the total mass of VOC per volume of coating solids used each calendar month will be determined by the following procedures.

(A) Calculate the mass of VOC used (M_o+M_d) during the calendar month for the affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj}, \quad (1)$$

[$\sum L_{dj} D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received.] where n is the number of different coatings used during the calendar month and m is the number of different diluent VOC-solvents used during the calendar month.

(B) Calculate the total volume of coating solids used (L_s) in the calendar month for the affected facility by the following equation: