

**Article XXI Rules and Regulations  
of the Allegheny County Health Department  
SUBPART 1 - VOC SOURCES**

**'2105.10 SURFACE COATING PROCESSES** *[revised; SIP -effective date: August 23, 2005,  
revised SIP effective date 12/26/2014* **Applicability a. 3 and a.4/**

a. **Applicability.** This section applies to a surface coating process category, regardless of the size of the facility, which emits or has emitted VOCs into the outdoor atmosphere in quantities greater than 3 pounds (1.4 kilograms) per hour, 15 pounds (7 kilograms) per day, or 2.7 tons (2,455 kilograms) per year during any calendar year since January 1, 1987.

1. The limits from 2105.10 and Table 2105.10, number 7 for Metal furniture coating and number 9 for Large appliance coating, no longer apply to the large appliance and metal furniture surface coating process as of January 1, 2011.

2. The limits from 2105.10 and Table 2105.10, number 5 for Paper coating, no longer apply to the paper, film, and foil surface coating process as of January 1, 2011.

**3. The limits from 2105.10 and Table 2105.10, number 10 for miscellaneous metal parts and products, no longer apply to miscellaneous metal and/or plastic parts surface coating processes as of January 1, 2014.**

**4. the limits from 2105.10 and Table 2105.0, number 6 for Automobile and light duty truck coating, no longer apply to automobile and light-duty truck assembly truck coatings as of January 1, 2014.**

b. **Limitations.** A person may not cause or permit the emission into the outdoor atmosphere of VOCs from a surface coating process category listed in Table 2105.10, unless one of the following limitations is met:

1. The VOC content of each as applied coating is equal to or less than the standard specified in Table 2105.10.

A. The VOC content of the as applied coating, expressed in units of weight of VOC per volume of coating solids, shall be calculated as follows:

$$\text{VOC} = (W_o)(D_c)/V_n$$

Where:

VOC = VOC content in lb VOC/gal of coating solids

$W_o$  = Weight percent of VOC ( $W_v - W_w - W_{ex}$ )

$W_v$  = Weight percent of total volatiles (100% - weight percent solids)

$W_w$  = Weight percent of water

$W_{ex}$  = Weight percent of exempt solvent(s)

$D_c$  = Density of coating, lb/gal, at 25C

$V_n$  = Volume percent of solids of the as applied coating

B. The VOC content of a dip coating, expressed in units of weight of VOC per volume of coating solids, shall be calculated on a 30-day rolling average basis using the following equation:

$$VOC_A = \frac{\sum_i (W_{oi} \times D_{ci} \times Q_i) + \sum_j (W_{oj} \times D_{dj} \times Q_j)}{\sum_i (V_{ni} \times Q_i)}$$

Where:

$VOC_A$  = VOC content in lb VOC/gal of coating solids for a dip coating, calculated on a 30-day rolling average basis

$W_{oi}$  = Percent VOC by weight of each as supplied coating (i) added to the dip coating process, expressed as a decimal fraction (that is 55% = 0.55)

$D_{ci}$  = Density of each as supplied coating (i) added to the dip coating process, in pounds per gallon

$Q_i$  = Quantity of each as supplied coating (i) added to the dip coating process, in gallons

$V_{ni}$  = Percent solids by volume of each as supplied coating (i) added to the dip coating process, expressed as a decimal fraction

$W_{oj}$  = Percent VOC by weight of each thinner (J) added to the dip coating process, expressed as a decimal fraction

$D_{dj}$  = Density of each thinner (J) added to the dip coating process, in pounds per gallon

$Q_j$  = Quantity of each thinner (J) added to the dip coating process, in gallons

C. The VOC content of the as applied coating, expressed in units of weight of VOC per weight of coating solids, shall be calculated as follows:

$$VOC_B = (W_o)/(W_n)$$

Where:

$VOC_B$  = VOC content in lb VOC/lb of coating solids

$W_o$  = Weight percent of VOC ( $W_v - W_w - W_x$ )

$W_v$  = Weight percent of total volatiles (100% - weight percent solids)

$W_w$  = Weight percent of water

$W_{ex}$  = Weight percent of exempt solvents

$W_n$  = Weight percent of solids of the as applied coating

D. Sampling and testing shall be done in accordance with the procedures and test methods specified in Part G (Methods).

2. The overall weight of VOCs emitted to the atmosphere is reduced through the use of vapor recovery or incineration or another method which is acceptable under '2105.01 (Equivalent Compliance Techniques). The overall efficiency of a control system, as determined by the test methods and procedures specified in Part G, shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = (1 - E/V) \times 100$$

Where:

V = The VOC content of the as applied coating, in lb VOC/gal of coating solids or lb VOC/lb of coating solids

E = Table 2105.10 limit in lb VOC/gal of coating solids or lb VOC/lb of coating solids

O = Overall control efficiency

c. **Records.** A facility, regardless of the facility's annual emission rate, which contains surface coating processes shall maintain records sufficient to demonstrate compliance with this section. At a minimum, a facility shall maintain daily records of:

1. The following parameters for each coating, thinner, and other component as supplied:

A. The coating, thinner, or component name and identification number;

B. The volume used;

C. The mix ratio;

D. The density or specific gravity;

E. The weight percent of total volatiles, water, solids, and exempt solvents; and

F. The volume percent of solids for Table 2105.10 surface coating process categories 1-10.

2. The VOC content of each coating, thinner, and other component as supplied.

3. The VOC content of each as applied coating.

The records shall be maintained for 2 years and shall be submitted to the Department on a schedule reasonably prescribed by the Department.

d. **Exempt Solvents.** The solvents methyl chloroform (1,1,1 - trichloroethane) and methylene chloride are exempt from control under this Section. No surface coating process which seeks to comply with this Section through the use of an exempt solvent may be included in any alternative standard approved pursuant to this Article.

e. **Wood Furniture.** No person shall operate, or allow to be operated, any source subject to this Section that emits VOCs into the outdoor atmosphere from the application of wood furniture coatings unless the coatings are applied using electrostatic, airless, curtain coating, roll coating, hand roller, hand brush, flow coating, dip coating, or high volumelow pressure application equipment. Air atomized sprays may be used to apply cosmetic specialty coatings if the volume of the cosmetic specialty coatings is less than 5% by volume of the total coating used at the source or to apply final repair coatings.

f. **Miscellaneous Metal Parts and Products.** If more than one emission limitation for miscellaneous metal parts and products applies to a specific coating, then the least stringent emission limitation shall apply.

g. **Exempt Other.** The VOC standards in Table 2105.10 do not apply to a coating used exclusively for determining product quality and commercial acceptance, touch-up and repair, and other small quantity coatings if the coating meets the following criteria:

1. The quantity of coating used does not exceed 50 gallons per year for a single coating and a total of 200 gallons per year for all coatings combined for the facility.
2. The owner or operator of the facility requests, in writing, and the Department approves, in writing, the exemption prior to use of the coating.

**Table 2105.10**

**Emission Limits of VOCs in Surface Coatings by Process Category  
Weight of VOC per Volume of Coating Solids**

lbs kg VOC VOC per  
per gal liter coating coating

Surface Coating Process Category solids solids

1. Can Coating

- (a) sheet basecoat 4.62 0.55
- (b) can exterior 4.62 0.55
- (c) interior body spray 10.05 1.20
- (d) two piece can end exterior 10.05 1.20
- (e) side-seam spray 21.92 2.63
- (f) end sealing compound 7.32 0.88

2. Coil coating 4.02 0.48 3. Fabric coating 4.84 0.58 4. Vinyl coating 7.69 0.92

5. Paper coating 4.84 0.58

6. Automobile and light duty truck coating

- (a) prime coat 2.60 0.31
- (b) topcoat 4.62 0.55
- (c) repair 14.14 1.69

7. Metal furniture coating 5.06 0.61 8. Magnet wire coating 2.16 0.26

9. Large appliance coating 4.62 0.55

10. Miscellaneous metal parts and products (a) topcoats for locomotives and heavy-duty trucks 6.67 0.80

- (b) hopper car and tank car interiors 6.67 0.80
- (c) pail and drum interiors 10.34 1.24
- (d) clear coatings 10.34 1.24
- (e) air-dried coatings 6.67 0.80
- (f) extreme performance coatings 6.67 0.80
- (g) all other coatings 5.06 0.61

**Weight of VOC per Weight of Coating Solids**

lbs kg VOC VOC per  
per lb kg  
coating coating  
solids solids

11. Wood furniture manufacturing operations

- (a) topcoats and enamels 3.0 3.0
- (b) washcoat 14.3 14.3
- (c) final repair coat 3.3 3.3
- (d) basecoats 2.2 2.2
- (e) cosmetic specialty coatings 14.3 14.3
- (f) sealers 3.9 3.9

## § 2105.11 GRAPHIC ARTS SYSTEMS

a. This Section applies to sources whose rotogravure and flexographic printing presses in themselves, or in combination with any surface coating operations subject to the provisions of Section 2105.10 of this Article (relating to Surface Coating Processes), have a potential uncontrolled emission rate of 1000 pounds or more per day or 100 tons or more per year of volatile organic compounds, including emissions from solvents used for clean up and purging. No person shall operate, or allow to be operated, any source to which this Section applies, unless one of the following emission limitations is met:

1. The volatile fraction of the ink, as applied to the substrate, contains 25.0 percent by volume or less of VOC and 75.0 percent by volume or more of water;
2. The ink, as applied to the substrate, contains 60.0 percent by volume or more of solid material; or
3. There is in operation a carbon adsorption system, an incinerator system, or an alternate volatile organic compound emission control system which recovers or destroys at least 90 percent by weight of the volatile organic compounds entering the system.

b. Any person who seeks to comply with the requirements of this Section through the installation and operation of an emission control system as provided by Paragraph a.3 above shall operate such emission control system in conjunction with an emission capture system which is designed and operated consistent with good engineering practice and which achieves a contemporaneous, overall reduction in volatile organic compound emissions from each ink/press of at least:

1. 75.0 percent from publication rotogravure processes;
2. 65.0 percent from other rotogravure processes; and,
3. 60.0 percent from flexographic printing processes.

c. Presses which are used only to check the quality of the image formation of newly etched or engraved printing cylinders are exempted from this Section provided the aggregate emissions from the presses do not exceed 400 pounds in any 30 day running period.

### **d. Exempt Solvents.**

The solvents methyl chloroform (1,1,1-trichloroethane) and methylene chloride are exempt from control under this Section. No graphic arts process which seeks to comply with this Section through the use of an exempt solvent may be included in any alternative standard approved pursuant to this Article.

**e. Measurements.**

Measurements of the volatile fraction of inks and of volatile organic compound emissions shall be performed according to the applicable procedures established in § 2107.04 of this Article.

**f. Exempt Other.**

*The owner or operator of a flexible package printing press subject to § 2105.81 CONTROL OF VOC EMISSIONS FROM FLEXIBLE PACKAGE PRINTING, is no longer subject to all subparagraphs of § 2105.11 GRAPHIC ARTS SYSTEMS, and shall be subject to all subparagraphs of § 2105.81 CONTROL OF VOC EMISSIONS FROM FLEXIBLE PACKAGE PRINTING as of January 1, 2012.*

[Section 2105.11 is revised; the SIP effective date is November 5, 2014]

**'2105.12 VOLATILE ORGANIC COMPOUND STORAGE TANKS**

**a. Capacity Greater Than or Equal to 2,000 Gallons But Less Than or Equal to 40,000 Gallons.**

No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.5 psia under actual storage conditions in any above-ground stationary storage tank having a capacity equal to or greater than 2,000 gallons but less than or equal to 40,000 gallons, unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig of pressure or 0.3 psig of vacuum or at the highest possible pressure and vacuum in accordance with state or local fire codes, National Fire Prevention Association guidelines, or other national consensus standard approved in writing by the Department. Petroleum liquid storage vessels which are used to store produced crude oil and condensate prior to lease custody transfer are exempt from the requirement of this Subsection.

**b. Capacity Greater Than 40,000 Gallons.** No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure greater than 1.5 psia under actual storage conditions in any stationary tank, reservoir, or other container with a capacity greater than 40,000 gallons, unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressure sufficient to at all times prevent vapor or gas loss to the atmosphere or is equipped with:

1. An external or internal floating roof, except that this control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11.0 psia or greater under actual storage conditions; or
2. A vapor recovery and disposal system reducing uncontrolled emissions of volatile organic compounds by at least 90% by weight. Compliance testing shall be done in accordance with the provisions of '2107.04 of this Article.

This Subsection does not apply to petroleum liquid storage tanks used to store waxy, heavy-pour crude oil or to tanks having a capacity less than 420,000 gallons used to store produced crude oil and condensate prior to lease custody transfer.

**c. Requirements for Floating Roofs.** Floating roofs required by Subsection b above shall comply with the following requirements:

1. External floating roofs shall be fitted with a primary seal and a continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal). In addition, external floating roofs shall meet all of the following equipment requirements:

A. All seal closure devices must meet the following requirements:

- i. There shall be no visible holes, tears, or other openings in the seals or seal fabric;
- ii. The seals shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and
- iii. For tanks with vapor-mounted primary seals, the accumulated area of gaps exceeding 1/8 inch in width between the secondary seal and the tank wall shall not exceed 1.0 square inches per foot of tank diameter. Compliance with this requirement shall be determined by physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 1/8 inch uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and tank wall and by summing the area of the individual gaps.

B. All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves shall be:

- i. Equipped with covers, seals, or lids which are kept in the closed position except when the openings are in actual use; and,
- ii. Equipped with projections into the tank which remain below the liquid surface at all times.

C. Automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

D. Rim vents shall be set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting.

E. Emergency roof drains shall be provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening.

2. Internal floating roofs shall be fitted with a primary seal and shall comply with all of the following equipment requirements:

A. A closure seal, or seals, to close the space between the roof edge and tank wall shall be used.

B. There shall be no holes, tears, or other openings in the seal or any seal fabric or materials.

C. All openings except stub drains shall be equipped with covers, lids, or seals such that:

i. The cover, lid, or seal is in the closed position at all times except when in actual use;

ii. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and,

iii. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

d. For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature for the hottest month of the year in which such storage takes place.

e. For purposes of this Section, existing petroleum liquid storage tanks of the following types are deemed to comply with the equipment requirements of this Section. Such tanks shall comply with the inspection and record-keeping requirements of Subsection f of this Section.

1. Tanks which contain a petroleum liquid with a true vapor pressure less than 4.0 psia and which are of welded construction and which presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of demonstrated equivalence approved in writing by the Department; and

2. Tanks which are welded construction, equipped with a metallic-type shoe primary seal and which have a secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal).

**f. Inspection and Record-Keeping.** Any person who operates, or allows to be operated, a petroleum liquid storage tank with a floating roof subject to this Article shall:

1. Perform routine inspections annually in order to ensure compliance with this Article, including a visual inspection of the secondary seal gap when inspecting external floating roof tanks;

2. For external floating roof tanks, measure the secondary seal gap annually in accordance with this Article when the floating roof is equipped with a vapormounted primary seal; and

3. Maintain records of the types of volatile petroleum liquids stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed pursuant to this Section. Copies of such records shall be retained for at least two years and shall be made available to the Department upon request for inspection or copying.

#### **'2105.13 GASOLINE LOADING FACILITIES**

a. **Handling.** No person shall handle, or allow to be handled, gasoline in any bulk gasoline terminal, bulk gasoline plant, or other source subject to this Section in such manner that it is spilled, discarded in sewers, stored in open containers, or otherwise handled so as to result in uncontrolled evaporation into the open air.

b. **Transfers.** No person shall transfer, or allow the transfer of, gasoline between any tank truck or trailer and any stationary storage tank located in a bulk gasoline terminal or bulk gasoline plant, or any small gasoline storage tank to which Subsection e below applies, unless:

1. A vapor balance system is in good working order and is designed and operated during the transfer in such manner that:

A. Gauge pressure does not exceed 18 inches of water and vacuum does not exceed six inches of water in the gasoline tank truck;

B. Readings do not equal or exceed 100 percent of the lower explosive limit (LEL, measured as propane) at one inch from all points on the perimeter of a potential leak source when measured by the method referenced in '2107.04 of this Article during transfer operations; and

C. There are no avoidable visible liquid leaks during trans operations;

2. Any truck, vapor balance system, or vapor disposal system, where applicable, that exceeds the limits in Paragraph b.1 above is repaired and retested according to the method referenced in '2107.04 of this Article within 15 days;

3. There are no visually or audibly detectable leaks in the pressure/vacuum relief valves and hatch covers of the tank truck or the pressure/relief valves and hatch covers of the trailer, the truck tanks or storage tanks, or associated vapor and liquid lines during transfer; and

4. The pressure and vacuum relief valves on stationary and vehicular tanks are set to release at no less than 0.7 psig of pressure or 0.3 psig of vacuum or the highest allowable pressure and vacuum as specified in state or local fire codes, or the National Fire Prevention Association guidelines or other national consensus standard approved in writing by the Department. Upon demonstration to the Department's written satisfaction by the owner or operator of an underground small gasoline storage tank that the vapor balance system required by Subsection e below will achieve a 90% vapor recovery efficiency without a pressure and vacuum relief valve and that an interlock system sufficient to ensure connection of the vapor recovery line prior to transfer of gasoline will be used, no pressure and vacuum relief valve shall be required. The vacuum setting on the pressure and vacuum relief valve on an underground storage tank may be set at the lowest vacuum setting which is sufficient to keep the vent closed at zero pressure and vacuum.

c. **Bulk Gasoline Terminals.** No person shall load, or allow to be loaded, gasoline from a bulk gasoline terminal into a vehicular tank unless:

1. There is in operation on the gasoline loading racks a vapor collection and disposal system reducing uncontrolled emissions by at least 90% by weight or emitting no more than 0.0668 pounds of gasoline for every 100 gallons of gasoline loaded;

2. There is in operation on the gasoline loading racks a loading arm with a vapor collection adaptor and pneumatic, hydraulic or other mechanical means to force a vapor-tight seal between the adaptor and the hatch of the vehicular tank. A means shall also be provided to prevent gasoline drainage from the loading device when it is not connected to the hatch, and to accomplish complete drainage before disconnection. When loading is done by means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which are closed when disconnected; and

3. Any person who operates, or allows to be operated, a bulk gasoline terminal shall maintain records of daily throughput. Such records shall be retained for not less than two years and shall be made available for inspection and copying by the Department upon request.

Compliance testing shall be done according to the provisions of '2107.04 of this Article.

d. **Bulk Gasoline Plants.** No person shall load, or allow to be loaded, gasoline from a bulk gasoline plant stationary tank into a vehicular tank unless such loading is done by means of bottom filling with the inlet flush with the vehicular tank bottom or by means of topsubmerged filling with the fill pipe extending to within six inches of the bottom of the vehicular tank throughout the loading operation.

In addition, no person shall load, or allow to be loaded, gasoline into any stationary tank of a bulk gasoline plant, or from any such stationary tank into a vehicular tank, unless:

1. There is in operation on such stationary tank:

A. A vapor balance system which emits no more than the amount of emissions permitted by Paragraph c.1 of this Section; or

B. A floating roof complying with Paragraph b.1 and Subsection c of '2105.12 under this Article and a vapor recovery and disposal system which emits no more than the amount of emissions permitted by Paragraph c.1 of this Section; and

2. Any person who operates, or allows to be operated, a bulk gasoline plant shall maintain records of daily throughput. Such records shall be retained for not less than two years and shall be made available for inspection and copying by the Department upon request.

e. **Small Gasoline Storage Tanks.** No person shall load, or allow to be loaded, gasoline from any vehicular tank into any stationary storage tank having a capacity of 250 gallons or

more if installed on or after January 1, 1979, or 2,000 gallons or more if installed before January 1, 1979, which is located in any gasoline handling facility unless there is in operation on such storage tank a vapor balance system which emits no more than the amount of emissions permitted by Paragraph c.1 of this Section and unless the stationary tank is equipped with a submerged fill pipe extending to within six inches of the bottom of the tank throughout the loading operation.

The dispensing delivery tank shall remain vapor tight at all times except after all vapors have been disposed of in accord with the provisions of this Section.

Stationary storage tanks with a capacity less than 550 gallons that are used for agricultural purposes and that are equipped with a submerged fill pipe shall be exempted from the provisions of this Subsection.

f. **Gasoline Tank Trucks.** No person shall transfer, or allow the transfer of, gasoline into or from a gasoline tank truck subject to Subsections c, d, or e above unless such tank truck:

1. Has been tested within the prior 12-month period in accordance with the procedure referenced in '2107.04 of this Article;

2. Sustains a pressure change no more than 3 inches of water in five minutes when pressurized to a gauge pressure of 18 inches of water or evacuated to a gauge pressure of six inches of water during such testing;

3. Is repaired and retested within 15 days of a test which does not meet the requirements of Paragraph 2 of this Subsection; and

4. Displays a clear marking near the federal Department of Transportation certification plate which shows the most recent date upon which the gasoline tank truck passed the test required by this Subsection.

g. **Record-Keeping.** Any person who operates, or allows to be operated, a gasoline tank truck subject to the requirements of Subsection f above shall comply with the following record-keeping requirements:

1. Records of all tests and repairs shall be maintained in a legible, readily available condition for two (2) years after the date the testing or repair was completed. Such records shall include at a minimum:

A. The gasoline tank truck serial number and identification of the vapor collection system involved;

B. The date of testing;

- C. If applicable, the type of repair and the dates of repair and retesting;
  - D. For each test or retest, the initial test pressure and the time of the reading, the final test pressure and the time of the reading, the initial test vacuum and the time of the reading, and the final test vacuum and the time of the reading;
  - E. At the top of each page, the company name, and the date and location of the tests on the page; and
  - F. The name and title of the person conducting the test; and
2. Copies of all records and reports made pursuant to this Subsection shall be made available to the Department upon request for inspection and copying. A copy of the test results for each gasoline tank truck shall be kept with the truck.

#### **'2105.14 GASOLINE DISPENSING FACILITIES - STAGE II CONTROL**

*[Section amended June 13, 2005, effective July 10, 2005 (ACHD); the SIP effective date is March 17, 2008 ]*

- a. **Applicability.** This Section applies to gasoline dispensing facilities with throughputs greater than 10,000 gallons per month. In the case of independent small business marketers of gasoline, as defined in Section 324 of the Clean Air Act (42 U.S.C.A. 7625(c )), this Section does not apply if the throughput is less than 50,000 gallons per month.
- b. **Requirement for Stage II Control.** After the date specified in Subsection c, an owner or operator of a gasoline dispensing facility subject to this Section may not transfer or allow the transfer of gasoline into a motor vehicle fuel tank unless the dispensing facility is equipped with a Department approved and properly operating Stage II vapor recovery or vapor collection system. Unless a higher percent reduction is required by the EPA under section 182 of the Clean Air Act (42 U.S.C.A. § 7511 a), approval by the Department of a Stage II vapor collection system will be based on a determination that the system will collect at least 95% by weight, of the gasoline vapors that are displaced or drawn from a vehicle fuel tank during refueling and the captured vapors are returned to a vapor tight holding system or vapor control system.
- c. **Compliance Schedule.**
  - 1. Facilities for which construction was commenced after April 1, 1997, shall achieve compliance at the time of opening of the gasoline dispensing facility.

2. Facilities which dispense greater than or equal to 120,000 gallons of gasoline per month, based on average monthly sales during calendar years 1995 and 1996, shall have achieved compliance by July 1, 1999.

3. Facilities which dispense greater than 90,000 gallons per month but less than 120,000 gallons per month based on average monthly sales during calendar years 1995 and 1996 shall have achieved compliance by December 31, 2000.

d. **Definition.** For the purposes of this Section, the term "construction" includes, but is not limited to, the addition or replacement of one or more underground gasoline storage tanks.

e. **General Requirements.** Owners or operators, or both, of gasoline dispensing facilities subject to this Section shall:

1. Install necessary Stage II vapor collection and control systems, provide necessary maintenance and make modifications necessary to comply with the requirements.

2. Provide adequate training and written instructions to the operator of the affected gasoline dispensing facility to assure proper operation of the system.

3. Immediately remove from service and tag any defective nozzle or dispensing system until the defective component is replaced or repaired. A component removed from service may not be returned to service until the defect is corrected. If the Department finds that a defective nozzle or dispensing system is not properly tagged during an inspection, the component may not be returned to service until the defect is corrected, and the Department approves its return to service in writing.

4. Conspicuously post operating instructions for the system in the gasoline dispensing area which, at a minimum, include:

A. A clear description of how to correctly dispense gasoline with the vapor

recovery nozzles utilized at the site.

B. A warning that continued attempts to dispense gasoline after the system

indicates that the vehicle fuel tank is full may result in spillage or recirculation of the gasoline into the vapor collection system.

C. A telephone number established by the Department for the public to report

problems experienced with the system.

5. Comply with the functional testing and certification requirements specified in EPA's

Stage II Enforcement and Technical Guidance Documents developed under section 182 of the Clean Air Act to meet the Clean Air Act requirements, conduct Department approved efficiency tests upon installation, addition, or replacement of one or more underground storage tanks, and conduct compliance tests at intervals thereafter according to the following schedule:

A. For vapor balance systems, a pressure decay or leak test once every 5 years, a

dynamic back-pressure test once every 5 years, and a blockage test once every 5 years; or

B. For vacuum-assist systems, including Healy systems, a pressure decay or leak

test once every 12 months, and an air to liquid volume ratio test once every 12 months; or

C. For all other systems, tests and a testing schedule as approved by the Department.

6. Maintain written and electronic records on the premises of the affected gasoline dispensing facility, available for inspection and copying by the Department upon request, of system test results, monthly throughput, type and duration of any failures of the system, maintenance and repair activities, training, and compliance records. The records shall be kept for at least two (2) years, except for efficiency test reports which shall be kept since the most recently required testing date.

f. **Exception.** The requirements of this Section shall not be effective unless such requirements are specifically mandated by controlling federal or state laws or regulations. Any rescission of the controlling federal and state laws and regulations mandating these requirements, or the suspension of enforcement of the same, shall result in the immediate suspension of the requirements of this Section by the Department.

#### **'2105.15 DEGREASING OPERATIONS**

a. **Cold Cleaning Degreaser.** No person shall operate, or allow to be operated, any cold cleaning degreaser with a degreaser opening exceeding ten (10) square feet, unless:

1. There is in operation on such degreaser:

A. A cover to prevent evaporation of solvent during periods of non-use;

B. Equipment for draining cleaned parts; and

C. A permanent conspicuous label summarizing the operating requirements set forth in Paragraph a.2 below; and

2. Such degreaser is operated at all times in such manner that:

A. Waste solvents are transferred to another party or disposed of by means insuring that no more than 20% by weight of the solvents evaporate into the open air;

B. Waste solvents are stored in covered containers;

C. The degreaser cover is closed when parts are not being processed through the degreaser; and,

D. Cleaned parts are drained for at least 15 seconds or until dripping ceases.

b. **Open Top Vapor Degreaser.** No person shall operate, or allow to be operated, any open top vapor degreaser with a degreaser opening exceeding ten (10) square feet, unless:

1. Such degreaser has:

A. A freeboard ratio greater than or equal to 0.75 and, if the degreaser opening is greater than ten square feet, the degreaser cover is powered;

B. A refrigerated chiller in operation;

C. An enclosed design in which the cover or door opens only when the dry part is actually entering or exiting the degreaser; or

D. A carbon adsorption system in operation:

i. With ventilation greater than 50 cfm/ft<sup>2</sup> of air/vapor area when the cover is open; and

ii. Which emits less than 25 ppm of solvent by volume averaged over one complete adsorption cycle; and,

2. There is in operation on such degreaser:

A. A cover that can be opened and closed easily without disturbing the vapor zone;

B. A safety switch which shuts off the sump heat if condenser coolant is either not circulating or too warm (condenser flow switch and thermostat);

C. A safety switch shuts off the spray pump if the vapor level drops more than four inches; and

D. A permanent conspicuous label summarizing the operating requirements set forth in Paragraph b.3 below; and

3. Such degreaser is operated at all times in such manner that:

A. The degreaser cover is closed when parts are not being processed through the degreaser;

B. All parts being degreased are racked to allow full drainage;

C. Parts being degreased are moved in and out of the degreaser at less than 11 feet per minute;

D. All pools of solvent on degreased parts are drained before the parts are removed from the degreaser;

E. All degreased parts are drained within the degreaser for at least 15 seconds or until visually dry;

F. Porous or absorbent materials, such as cloth, leather, wood or rope, are not degreased;

G. Parts being degreased do not occupy more than half of the degreaser's open top area;

H. Spraying is not done above the vapor level;

I. Solvent leaks are immediately repaired or the degreaser immediately shut down;

J. Waste solvents are transferred to another party or disposed of by a means insuring that no more than 20% by weight of the solvents evaporate into the open air;

K. Waste solvents are stored in covered containers;

L. Exhaust ventilation does not exceed 65 cfm/ft<sup>2</sup> of degreaser opening, unless necessary to meet federal Occupational Safety and Health Administration (OSHA) requirements;

M. Ventilation fans are not operated near the degreaser opening; and,

N. Water is not visually detectable in solvent exiting the water separator.

c. **Conveyorized Degreasers.** No person shall operate, or allow to be operated, any conveyorized degreaser with a degreaser opening exceeding ten (10) square feet, unless:

1. There is in operation on such degreaser:

A. A refrigerator chiller or a carbon adsorption system, with ventilation greater than 50 cfm/ft<sup>2</sup> of air/vapor area when downtime covers are open and which emits less than 25 parts per million of solvent by volume averaged over one complete adsorption cycle;

B. A drying tunnel or another means such as a rotating (tumbling) basket sufficient to prevent degreased parts from carrying solvent liquid or vapor out of the degreaser;

C. A safety switch which shuts off the sump heat if condenser coolant is either not circulating or too warm (condenser flow switch and thermostat);

D. A safety switch which shuts off the spray pump if the vapor level drops more than four inches;

E. A safety switch which shuts off the sump heat when the vapor level rises too high (vapor level control thermostat);

F. Entrances and exits which silhouette the parts to be degreased so that the average clearance between parts and the edge of the degreaser is either less than four inches or less than ten percent (10%) of the width of the opening;

G. Covers for closing off the entrances and exits during shutdown hours; and

H. A permanent conspicuous label summarizing the operating requirements set forth in Paragraph c.2 below; and

2. Such degreaser is operated at all times in such manner that:

A. Exhaust ventilation does not exceed 65 cfm/ft<sup>2</sup> of degreaser opening, unless necessary to meet federal Occupational Safety and Health Administration (OSHA) requirements and work place fans are not used near the degreaser opening;

B. Carry-out emissions are minimized by racking parts for best drainage and by maintaining vertical conveyor speed at less than 11 feet per minute;

C. Waste solvents are transferred to another party or disposed of by a means insuring that no more than 20% by weight of the solvents evaporate into the open air;

D. Waste solvents are stored in covered containers;

E. Solvent leaks are immediately repaired or the degreaser shut down;

F. Water is not visually detectable in solvent exiting the water separator; and,

G. Downtime covers are placed over conveyor entrances and exits immediately after the conveyor and exhaust are shut down and immediately before they are started up.

#### **'2105.16 CUTBACK ASPHALT PAVING**

a. No person may cause, allow, or permit the use or application of cutback asphalt for paving operations except when:

1. Long-life stockpile is necessary;

2. Use or application between October 31 and April 30 is necessary;

3. The cutback asphalt is used solely as a penetrating prime coat, a dust palliative, a tack coat, or a precoating of aggregate; or

4. Skin patching is necessary during October. Skin patching shall be less than 500 feet continuous length, 1300 linear feet per mile, and 1750 square yards per lane mile.

b. No person shall use or apply emulsion asphalts that contain more than the maximum percentage of solvent shown in Table 2105.16.

**TABLE 2105.16**

Emulsion Max. %

Grade Type Solvent

E-1 Rapid Setting 0

E-2 Rapid Setting (Anionic) 0

E-3 Rapid Setting (Cationic) 3

E-4 Medium Setting 12

E-5 Medium Setting 12

E-6 Slow Setting (Soft Residue) 0

E-8 Slow Setting (Hard Residue) 0

E-10 Medium Setting (High Float) 7

E-11 High Float 7

E-12 Medium Setting (Cationic) 8

**2105.17 ETHYLENE PRODUCTION PROCESSES**

No person shall operate, or allow the operation of, any ethylene production process, unless all waste gas streams are properly incinerated at no less than 1,300F (700C) for at least 0.3 seconds and the gases from all vapor blowdown systems are burned by smokeless flares.

**2105.18 [Not in SIP]****2105.19 SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING - FUGITIVE SOURCES**

a. This Section applies to sources with synthetic organic chemical and polymer manufacturing sources, other than equipment exempt under Subsection b below, having a design capacity to manufacture a total of 4,000 tons per year or more of any one or a combination of the following:

1. Synthetic organic chemicals listed in 40 CFR 60.489, as amended;
2. Methyl tert-butyl ether (MTBE);
3. Polyethylene;
4. Polypropylene; and
5. Polystyrene.

b. This Section shall not apply to:

1. Equipment operated entirely under a vacuum;
2. Equipment processing only fluids containing less than ten percent (10%) by weight of volatile organic compounds; nor
3. Equipment processing only fluids having a vapor pressure of less than 0.044 pounds per square inch absolute under standard conditions.

c. Any person who operates, or allows to be operated, a source subject to this Section shall, as a condition to any Installation Permit for such source:

1. Install a second valve, blind flange, plug, cap, or other equivalent sealing system on all open ended lines, except those equipped with safety pressure relief valves; and

2. Develop and initiate a leak detection and repair program for all pumps, valves, compressors, and safety pressure relief valves collectively referred to as components. The leak detection and repair program shall include, at a minimum, the following:

A. Attachment of an identification tag to or placement of any other permanent identification marking on each component. The identification shall be waterproof, be readily visible, and bear an identification number;

B. A leak check every three (3) months of all components and at any time of any component with a leak that is detected by sight, sound, or smell, by methods referenced in '2107.04 of this Article;

C. Attachment of a leak detection tag to each leaking component having a volatile organic compound leak equal to or greater than 10,000 ppm. The leak detection tag shall be waterproof, be readily visible, be a color that contrasts with the permanent identification, bear a leak detection number

and the date on which the leak was detected, and indicate if the component cannot be repaired until a process shutdown and a shutdown is not scheduled to occur within 15 days from the date of detection. The leak detection tag shall not be removed from the component until the component has been repaired and retested, and the test indicates that the component does not have a volatile organic compound leak equal to or greater than 10,000 ppm;

D. Repair and retest of each leaking component within 15 days of detection or as soon as possible if a shutdown is required to make the repair;

E. A leak check of each safety/relief valve within 24 hours after such valve has been vented to the atmosphere, by methods referenced in '2107.04 of this Article; and

F. Initiation and maintenance of a log of all components subject to leak inspection and maintenance. The log shall contain, at a minimum, the following:

- i. The identification number of each component;
- ii. The date on which each component was checked;
- iii. The total number of components checked;

- iv. The identification and leak detection number of each component found leaking;
- v. The location of each leaking component;
- vi. The type of each leaking component (for example: valve, seal, etc.);
- vii. The date on which each leaking component was discovered to be leaking;
- viii. The date of each repair;
- ix. The total number of components found leaking;
- x. The leak detection instrument readings before and after each repair;
- xi. Each component that can not be repaired until a process shutdown that will not occur within 15 days of detection; and
- xii. A record of the calibration of the leak detection monitoring instrument.

The monitoring log shall be retained for two (2) years after the date on which any leak check was made. The log shall be made available to the Department for inspection and copying at any time upon oral or written request.

d. Any person who operates, or allows to be operated, a source subject to this Section may submit to the Department for approval an alternative plan for the control of leaks from components, including a plan with less frequent testing based on superior past performance. The Department shall approve any plan that is equivalent to or better than the requirements of this Section in terms of leak control efficiency and enforceability. A plan approved by the Department under this Subsection shall not be effective until it is either approved by the EPA as a revision to the County's portion of the applicable SIP or becomes a part of a federally enforceable permit or order, whichever is first.

e. Any person who operates, or allows to be operated, a source subject to this Section may submit to the Department for approval a list of components the inspection of which would involve a significant element of danger. The Department shall exempt the components on the list from the requirements of this Section if such person can demonstrate to the satisfaction of the Department that a significant element of danger exists which cannot be reasonably eliminated, and that the exemptions will not result in a significant reduction of the volatile organic compound emission control effectiveness.

[Section 2105.14 is revised; the SIP effective date is March 17, 2008