# Rule 201District-Wide Coverage

Prohibitions, as set forth in this Regulation, shall apply in all portions of the Northern Sierra Air Quality Management District unless otherwise stated.

#### Rule 202Visible Emissions

A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- A. As dark or darker in shade as that designated as No. 1 on the Ringlemann Chart, as published by the United States Bureau of Mines, or
- B. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (A) of this section.

#### **<u>Rule 203</u>** Exceptions

The provisions of <u>Rule 202</u> do not apply to:

- A. Smoke from fires set or permitted by any public fire officer, if such fire is set by or permission given in the performance of the official duty of such officer, and such fire in the opinion of such officer is necessary:
  - 1. For the purpose of the prevention of a fire hazard. (or health hazard as determined by the Health Officer) which cannot be abated by any other means, or
  - 2. The instruction of public employees and/or volunteer firemen in the methods of fighting fires.
- B. Smoke from fires set pursuant to permit on property used for industrial purposes for the purpose of instruction of employees in methods of fighting fires.
- C. Open outdoor fires used for recreational purposes or for cooking of food for human consumption.
- D. The use of an experimental device, system, or method to study or research open burning authorized by Section 41707 and 41805 (b) of the Health and Safety Code and these Rules and Regulations.
- E. Agricultural operations necessary for the growing of crops, or raising of fowl or animals.
- F. Use of any aircraft to distribute seed, fertilizer, insecticides, or other agriculture aids over lands devoted to the growing of crops, or the raising of fowl or animals.
- G. The use of other equipment in agricultural operations necessary for the growing of crops, or the raising of fowl or animals.
- H. Orchard or citrus grove heaters that are on the approved list published by the State Air Resources Board.

- I. The governing board of the district may by Rule provide for the issuance by the Air Pollution Control Officer of permits for open burning. The provisions of <u>Rule 202</u> do not apply to smoke from fires set pursuant to such permit.
- J. Smoke emissions from tepee burners operating in compliance with Section 4438 of the Public Resources Code during the disposal of forestry and agricultural residues with supplemental fossil fuels, and burners used to produce energy and fired with such fuels, when such emissions result from startup or shutdown of the combustion process or from the malfunction of emissions control equipment. This subdivision shall not apply to emissions which exceed a period or periods of time aggregating more than 30 minutes in any 24-hour period. This subdivision shall not apply to emissions which result from the failure to operate and maintain in good working order any emission control equipment.

## Rule 204 Wet Plumes

Where the presence of uncombined water is the only reason for the failure of an emission to meet the limitation of <u>Rule 202</u> that Rule shall not apply. The burden of proof which establishes the application of this Rule shall be upon the person seeking to come within its provisions.

#### Rule 205 Nuisance

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property.

#### Exception:

The provisions of <u>Rule 205</u> do not apply to odors emanating from agriculture operations necessary for the growing of crops or raising of fowl or animals.

### Rule 206 Incinerator Burning

Except for the burning of residential rubbish, as defined in <u>Rule 102</u>, a person shall not burn any combustible or flammable waste in any incinerator within the boundaries of the Northern Sierra Air Quality Management District except in a multiple-chamber incinerator as defined in <u>Rule 102</u> or in equipment found by the Air Pollution Control Officer to be equally effective for the purpose of air pollution control.

# **Pathological Incineration**

A person shall not burn any pathological waste in any incinerator within the boundaries of the Northern Sierra Air Quality Management District unless all gases, vapors, and gas-entrained effluents from such an incinerator are:

- A. Incinerated at temperatures of not less than 1,500 degrees Fahrenheit for a period of not less than 0.5 seconds in an incinerator distributing direct flame to pathological waste on a solid grate, or
- B. Processed in such a manner determined by the Air Pollution Control Officer to be equally, or more, effective for the purpose of air pollution control than (A) above.

For the purpose of this Rule, "Pathological Waste" is defined as including, but not limited to, human or animal tissue, or natural constituents thereof, being combusted for reasons of waste reduction, disease control or burial preparation.

### Rule 207Particulate Matter

A person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of 0.1 grains per cubic foot of dry exhaust gas at standard conditions.

## Rule 208 Orchard or Citrus Heaters

- A. No person shall use any orchard or citrus heater unless it has been approved by the ARB or does not produce more than one (1) gram per minute of unconsumed solid carbonaceous material.
- B. All orchard heaters shall be maintained in reasonably clean condition, good repair and working order. Whenever orchard heaters are burning they must be adequately attended and supervised to maintain the condition, adjustment, and proper operation of the orchard heaters.
- C. It shall be unlawful for any person, for the purpose of frost protection, to burn any rubber, rubber tires, or other substance containing rubber, or to burn oil or other combustible substances in drums, pails, or other containers except orchard heaters.

#### Rule 209 Fossil Fuel-Steam Generator Facility

A person shall not build, erect, install or expand any fossil fuel fired steam generating facility unless the discharge into the atmosphere of contaminants will not and does not exceed any one or more of the following rates:

- A. 200 pounds per hour of sulfur compounds, calculated as sulfur dioxide (SO<sub>2</sub>);
- B. 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO<sub>2</sub>);
- C. 10 pounds per hour of combustion contaminants as defined in <u>Rule 102</u>, and derived from the fuel.

### Rule 210 Specific Contaminants

### A. Sulfur Compounds

A person shall not release or discharge into the atmosphere from any source of emission whatsoever, sulfur compounds, calculated as sulfur dioxide (SO<sub>2</sub>), in excess of 2000 parts per million by volume (0.2%) of exhaust gas.

## B. <u>Combustion Contaminants</u>

A person shall not release or discharge into the atmosphere from the following sources or units thereof, combustion contaminants calculated at 12 percent carbon dioxide ( $CO_2$ ) in excess of:

- 1. Wood Fired Boilers and Incinerators: 0.2 grains per cubic foot of dry exhaust gas at standard conditions.
- 2. All Other Sources: 0.1 grains per cubic foot of dry exhaust gas at standard conditions.
- C. Particulate matter emitted from a source or combination of sources in which exhaust gases from a combustion unit or process are used to dry, calcine, pyrolyze, sinter or otherwise thermally condition, exclusive of combusting any process material, shall be excluded from calculation as combustion contaminants.

## Rule 211Process Weight Per Hour

A person shall not release or discharge into the atmosphere from any source operation solid particulate matter in excess of that allowed in the table in <u>Rule</u> 212.

- A. The provisions of this Rule shall not apply to:
  - 1. Portland cement kilns, except that no owner or operator shall release or discharge into the atmosphere from any portland cement kiln particulate matter at a rate in excess of 0.30 pounds per ton of dry kiln feed, exclusive of fuel charged.
  - 2. Portland cement clinker coolers, except that no owner or operator shall release or discharge into the atmosphere from any portland cement clinker cooler particulate matter at a rate in excess of 0.10 pounds per ton of dry kiln feed, exclusive of fuel charged.
  - 3. Sewage sludge incinerators, except that no owner or operator shall release or discharge into the atmosphere from any sewage sludge incinerator particulate matter at a rate in excess of 1.30 pounds per ton of dry sludge input as determined in CFR 40, Part. 60.154.
  - 4. Rotary lime kilns, except that no owner or operator of such source constructed or modified after May 3, 1977, shall release or discharge into the atmosphere from such rotary lime kiln particulate matter at a rate in excess of 0.30 pounds per ton of limestone feed, exclusive of fuel charged.
  - 5. Lime hydrators, except that no owner or operator of such source constructed or modified after May 3, 1977, shall release or discharge into the atmosphere from such lime hydrator particulate matter in excess of 0.15 pounds per ton of lime feed.
  - 6. Combustion equipment which derives at least 80% of its fuel input heat content from wood or wood associated waste, except that such equipment shall comply with all other Rules in this Regulation.

- 7. Processing equipment used in conjunction with combustion sources, other than those types provided for in other subsections of this Rule, used to dry, calcine, pyrolyze, sinter or otherwise thermally condition any process material, except that such equipment shall comply with all other Rules in this Regulation.
- B. Performance tests undertaken to determine compliance of sources with Part A., Sections 1. through 5., of this Rule shall comply with the provisions of CFR 40, Part 60, Appendix A only.

#### Rule 212Process Weight Table

#### ALLOWABLE RATE OF EMISSION BASED ON PROCESS WEIGHT RATE

Process Weight Rate Lbs./Hr.									Em	<b>Emission Rate</b>	
										Lbs./Hr.	
50 .										0.4	
100 .										0.6	
500 .										1.5	
1,000 .										2.3	
5,000 .										6.3	
10,000 .										9.7	
20,000 .										15.0	
60,000 .										29.6	
80,000 .										31.2	
120,000										33.3	
160,000										34.9	
200,000										36.2	
400,000										40.4	
1,000,000		•	•	•	•	•	•	•	•	46.8	

Interpolation of the data for the process weight rates up to 60,000 lbs/hr. shall be accomplished by the use of equation:

E=3.59 P<sup>0.62</sup>

P is less than or equal to 30 tons/hr.

and interpolation or extrapolation of the data for process weight rates in excess of 60,000 lbs/hr. shall be accomplished by use of the equation:

E=17.31  $P^{0.16}$  P is greater than 30 tons/hr.

Where:E=Emission in pounds per hour.P=Process weight rate in tons per hour.

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Adopted 10/19/91

# Rule 213 Storage of Gasoline Products

## 1. Submerged Fill Pipe

No person shall install or maintain any stationary gasoline tank with a capacity of 250 gallons or more which is not equipped for loading through a permanent submerged fill pipe.

Exemptions to Subtlivision (1)
 A. Storage tanks installed prior to December 31, 1970.
 B. Storage tank is a pressure tank, floating roof tank, or tank equipped with a vapor recovery system.

C. Storage tanks used primarily for fueling implements of husbandry, as such vehicles are defined in Division 16, Chapter 1, of the Vehicle Code



# Rule 214 Phase I Vapor Recovery Requirements

# Part 1.0 General

### 1.1 <u>Purpose</u>

To limit the emission of gasoline vapor into the atmosphere during gasoline transfer operations other than vehicle fueling.

## 1.2 <u>Applicability</u>

The provisions of this rule shall apply to the transfer of gasoline from delivery vehicles to storage tanks. In addition, in ozone nonattainment areas the provisions of this rule shall apply to the pumpout of gasoline from any stationary storage container, delivery vessel, or vehicle fuel tank. Part 3.0 applies to areas that have not been federally designated as non-attainment and Part 4.0 applies to areas that have been designated as non-attainment. Parts 1.0 (General), 2.0 (Definitions) and 5.0 (Monitoring and Records) apply to all areas.

## Part 2.0 Definitions

**<u>APCO</u>**: Air Pollution Control Officer or Executive Director of the Northern Sierra Air Quality Management District, or an authorized representative thereof.

**Background:** A reading as methane on a portable hydrocarbon detection instruction which is observed at least three (3) meters upwind from the device to be inspected and reasonably uninfluenced by any specific emission point.

**CARB**: The California Air Resources Board.

**<u>CARB Certified</u>**: A Phase I or Phase II vapor recovery system, equipment, or any component thereof, for which CARB has evaluated its performance and issued a valid Executive Order pursuant to Health and Safety Code Section 41954. Each component of a system is a separate CARB certified item and cannot be replaced with a non-certified item or other items that are not certified for use with that particular system. Except for qualified repairs, a CARB certified component shall be as supplied by the qualified manufacturer. A rebuilt component shall not be deemed as CARB certified unless the person who rebuilds the component is authorized by CARB to rebuild that specific CARB certified component.

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**Delivery Vessel**: Any motor vehicle, trailer, or rail car used for the transportation of gasoline.

**Dry Break**: A Phase I vapor recovery component that opens only by connection to a mating device to ensure that no gasoline vapors escape from the underground storage tank before the vapor return line is connected and sealed.

**Executive Order**: A document issued by CARB pursuant to Health and Safety Code Section 41954 certifying that a specific vapor recovery system meets the applicable performance specifications and setting conditions for the certification.

**Gasoline**: Any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 4 pounds per square inch absolute or greater as determined by a method specified in Section 5.1(A).

<u>Gasoline Dispensing Facility</u>: A mobile fueler or a stationary source consisting of one or more storage tanks and associated equipment that receives, stores and dispenses gasoline to motor vehicle fuel tanks.

**Gasoline Vapors**: Organic compounds in the displaced vapors including any entrained liquid gasoline.

**Installer/Contractor**: A person(s) engaged in the installation, alteration, repair or replacement of a vapor recovery system or its components at a gasoline dispensing facility.

**Leak Free**: A liquid leak of less than three drops in any minute.

**Mobile Fueler**: Any gasoline delivery vessel with an attached container that is used to transport and dispense gasoline from an onboard storage container into any motor vehicle fuel tank.

<u>Offset Fill Pipe</u>: A fill pipe which contains one or more pipe bends and for which the horizontal distance between the truck delivery connection and the storage container fill opening is 6.1 meters (20 feet) or greater.

**<u>Purge</u>**: To release gasoline vapors, gases, or hydrocarbon vapors to the atmosphere from a delivery vessel by introduction of air or an inert gas.

**<u>Rebuild/Rebuilt</u>**: Repairs, replacement, or reconstructions to any part of a component of a vapor recovery system that forms the gasoline vapor passage of the component, or that comes in contact with the recovered gasoline vapors in the component. Rebuild does not include the replacement of a complete component with another CARB certified complete component; nor does it include the replacement of a spout, bellows, or vapor guard of a CARB certified nozzle. The new part shall be CARB certified and as supplied by the qualified manufacturer specifically for the CARB certified nozzle.

**Spill Container:** An enclosed container around a Phase I fill pipe that is designed to collect gasoline spillage resulting from disconnection between the liquid gasoline delivery hose and the fill pipe.

**Submerged Fill Pipe:** Any fill pipe, the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the container. "Submerged fill pipe" when applied to a container which is loaded from the side is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18 inches above the bottom of the container.

<u>Switch Loading</u>: The transfer of diesel fuel into a delivery vessel or storage container which previously contained gasoline.

**Tester:** Any person(s) who conducts a performance or re-verification test as required by this Rule or by a CARB Executive Order.

**VRED List:** Vapor Recovery Equipment Defects List. A list of defects that CARB has identified as substantially impairing the efficiency of the vapor recovery system, incorporated by reference in Title 17 CCR Section 94006, pursuant to California Health & Safety Code Section 41960.2(c).

**Vapor Tight**: For delivery vessels other than mobile fuelers, a reading 100% or less of the lower explosive limit (21,000 ppm measured as equivalent propane), as determined by the method specified in Section 5.1(B). For all other operations, a condition under which the concentration of total organic compounds, measured 0.4 inch (1 centimeter) from any source, does not exceed 10,000 ppmv (expressed as methane) above background, as determined by the method specified in Section 5.1(B).

# Part 3.0 Federal Ozone Attainment/Unclassified Areas

The following provisions (3.1 through 3.4) shall apply only in those portions of the District that have not been designated as non-attainment for any national ambient air quality standard for ozone.

# 3.1 Phase I Storage Tanks

No owner or operator of a retail service station shall transfer, permit the transfer, or provide equipment for the transfer of gasoline from a delivery vehicle to a stationary storage tank unless a CARBcertified Phase I vapor recovery system is installed on the storage tank and used during the transfer and the transfer vehicle is CARBcertified to be compatible with the Phase I stationary storage tank CARB certification.

# 3.2 Exemptions to 3.1

# A. Small Tanks

A gasoline storage tank with a capacity of less than 1.0 cubic meter (260 gallons) located at a retail service station or a tank of 550 gallons or less at all other locations.

# B. Agricultural Tanks

A gasoline storage tank used the majority of the time for the fueling of implements of husbandry as defined in Division 16, Chapter 1, of the Vehicle Code.

# C. Tanks With an Offset Fill Pipe

An underground gasoline storage tank installed prior to December 15, 1988 which is equipped with an offset fill pipe.

## D. Annual Volume Throughput

Any facility which has a calendar year volume throughput of less than 480,000 gallons of gasoline.

# 3.3 Tank Replacement - Phase I Requirement

At the time of tank replacement, a CARB-certified Phase I vapor recovery system shall be installed and used thereafter on all tanks at the facility unless exempted from the Phase I requirement pursuant to Section 3.2(A) or Section 3.2(B).

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### 3.4 <u>Defective Gasoline Storage Tank or Phase I Equipment</u> -<u>Prohibition of Use</u>

Whenever the Air Pollution Control Officer or his designee determines that a gasoline storage tank, Phase I vapor recovery system, or any component thereof, contains a defect, the Air Pollution Control Officer or his designee shall mark such system or component "Out of Order." No person shall use or permit the use of such marked component or system until it has been repaired, replaced, or adjusted as required to permit proper operation, and the Air Pollution Control Officer, or his designee has reinspected it or has authorized its use pending reinspection.

# 3.5 <u>Submerged Fill Pipe</u>

No person shall install or maintain any stationary gasoline tank with a capacity of 250 gallons or more that is not equipped for loading through a permanent submerged fill pipe.

# 3.6 Exemptions to Subdivision (3.5)

- **A.** Storage tanks installed prior to December 31, 1970.
- **B.** Storage tank is a pressure tank, floating roof tank, or tank equipped with a vapor recovery system.
- **C.** Storage tanks used primarily for fueling implements of husbandry, as such vehicles are defined in Division 16, Chapter 1, of the Vehicle Code.

# Part 4.0 Federal Ozone Non-attainment Areas

The following provisions (Sections 4.1 through 4.4) shall apply only in areas designated as non-attainment for any national ambient air quality standard for ozone. These are in addition to and supersede all other provisions of this Rule.

# 4.1 Applicability Thresholds

This Part (4.0) applies to the transfer of gasoline or switch loading from any delivery vessel into any stationary storage container with a capacity of 250 gallons or more, or any mobile fueler with a capacity of 120 gallons or more. This rule also applies to the "pump-out" of gasoline from any stationary storage container with a capacity of 250 gallons or more, mobile fueler with a capacity of 120 gallons or more, or vehicle fuel tank with a capacity of 5 gallons or more.

# 4.2 Exemptions to Section 4.1

# A. Implements of Husbandry

The provisions of this rule shall not apply to the transfer of gasoline into any stationary container which is used primarily for the fueling of implements of husbandry as such vehicles are defined in Division 16 (Section 36000 et seq) of the California Vehicle Code, if such container is equipped with a permanent submerged fill pipe.

# B. Throughput

The provisions of this rule shall not apply to any facility, retail or non-retail, where each and every month of operation within a calendar year has a volume throughput of gasoline less than 10,000 gallons.

# 4.3 <u>Standards</u>

# A. Storage and Transfer of Gasoline Products

- i. No person shall install or maintain any stationary gasoline tank with a capacity greater than 250 gallons that is not equipped with a CARB certified Phase I Vapor Recovery System.
- ii. Any gasoline tank required to be equipped with a Phase I Vapor Recovery System shall utilize that system during any and all transfers of gasoline.

# B. Prohibition of Use of Defective Systems or Components

Whenever a Phase I vapor recovery system, or any component thereof, contains a defect listed in the VRED List, the operator shall mark such system or component "Out of Order." No person shall use or permit the use of such marked component or system until it has been repaired, replaced, or adjusted, as required to permit proper operation, and the Air Pollution Control Officer has reinspected it or has authorized its use pending reinspection.

# C. Equipment and Operation Requirements

A person shall not transfer or permit the transfer of gasoline, or perform or permit switch loading, from any delivery vessel into any stationary storage container with a capacity of 250 gallons or more or mobile fueler with a capacity of 120 gallons or more, unless such container is provided with a permanent submerged fill pipe and unless such transfer is made under the following conditions, as applicable:

- i. Underground storage tanks are equipped with a CARB certified vapor recovery system that shall prevent emission to the atmosphere of at least 98%, by volume, of the gasoline vapors displaced from the storage container during the transfer of gasoline into the container. The vapor recovery system shall be maintained and operated according to the manufacturer's specifications and the applicable CARB Executive Orders, and shall meet all of the following:
  - a. The vapor recovery system is maintained to be leak free, vapor tight, and in good working order;
  - b. All fill tubes are equipped with vapor tight caps;
  - c. All dry breaks are equipped with vapor tight seals and vapor tight caps;
  - d. Each vapor tight cap is in a closed position except when the fill tube or dry break it serves is actively in use.
  - e. A CARB certified spill container shall be installed and maintained free of standing liquid, debris and other foreign matter. The spill container shall be equipped with an integral drain valve or other devices that are certified by CARB to return spilled gasoline to the underground stationary storage tank. The drain valve shall be maintained closed and vapor tight at all times except when the valve is actively in use.
- ii. Aboveground storage tanks are equipped with a CARB certified vapor recovery system that shall prevent emission to the atmosphere of at least 95%, by volume, of the gasoline vapors displaced from the storage container during the transfer of gasoline into the container, and shall meet all of the following:

- a. The vapor recovery system shall be maintained and operated according to the manufacturer's specifications and the applicable CARB Executive Orders;
- b. The vapor recovery system is maintained to be leak free, vapor tight, and in good working order;
  - c. All fill tubes are equipped with vapor tight caps;
- d. All dry breaks are equipped with vapor tight seals and vapor tight caps;
- e. All vapor return lines without dry breaks are equipped with vapor tight caps;
- f. Each vapor tight cap is in a closed position except when the fill tube or dry break it serves is actively in use.
- g. All CARB certified coaxial fill tubes are spring-loaded and operated so that the vapor passage from the stationary storage tank or the mobile fueler back to the tank truck trailer is not obstructed.
- Mobile fuelers are equipped with a CARB certified vapor recovery system that shall prevent emission to the atmosphere of at least 95%, by volume, of the gasoline vapors displaced from the mobile fueler container during the transfer of gasoline into the container. The vapor recovery system shall be maintained and operated according to the manufacturer's specifications and the applicable CARB Executive Orders, and meet all of the following:
  - a. The vapor recovery system is maintained to be leak free, vapor tight, and in good working order;
  - b. The container dome hatch must remain closed and latched at all times. It must not be opened for the purpose of routine tank gauging operations. It may only be opened to accomplish inspections which are necessary due to equipment failures, scheduled maintenance and repairs.

# D. Delivery Vessels

A person shall not operate or allow the operation of a gasoline delivery vessel other than a mobile fueler, unless it is certified according to CARB Certification Procedure CP-204 and maintained in compliance with the certification requirements, and meets all of the following:

- i. Each gasoline delivery elbow is equipped with sight windows.
- ii. The fuel delivery lines shall be maintained leak free, vapor tight, and free of air ingestion. A fuel delivery that is free of air ingestion is determined by observing the fuel stream as clear and free of air bubbles through the sight windows on the delivery system, except during the initial and final 60 seconds of fuel transfer.

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- iii. All vapor return lines are connected between the delivery vessel and the stationary storage tank or other delivery vessel. In addition, all associated hoses, fittings, and couplings are maintained in a leak free and vapor-tight condition.
- iv. The hatch on any delivery vessel shall be equipped with a vapor tight cover during gasoline transfer and pumping. The hatch shall not be opened except for visual inspection, which may be performed after at least three minutes following the completion of the gasoline transfer or pumping. Except otherwise specified by CARB, visual inspection shall be completed in three minutes or less.
- v. A person shall not purge gasoline vapors, gases, or hydrocarbon vapors from a delivery vessel to the atmosphere.

# E. Pressure Vacuum Valve Requirement

Unless otherwise specified in the applicable CARB Executive Order, the operator of any vapor recovery system shall have a pressure vacuum valve installed on all vent pipes open to the atmosphere with a minimum pressure setting at 2.5 to 6.0 inches of  $H_2O$ . The pressure vacuum valve shall have a minimum vacuum setting at 6.0 to 10.0 inches of  $H_2O$ .

# F. Prohibition of Sale

A person shall not supply, offer for sale, sell, install or allow the installation of any new or rebuilt vapor recovery system or any of its components, unless the system and components are CARB certified. Each vapor recovery system and its components shall be clearly and permanently marked with the qualified manufacturer's name and model number as certified by CARB. In addition, any qualified manufacturer who rebuilds a component shall also clearly and permanently mark the corresponding information on the component.

# G. Pump-out

i. No person shall allow the transfer ("pump-out") of gasoline from a stationary storage container with a capacity of 250 gallons or more or a mobile fueler with a capacity of 120 gallons or more into a stationary storage container or delivery vessel unless the

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transfer is made using a vapor collection and transfer system capable of returning the displaced vapors to the storage container being pumped out.

ii. No person shall allow the transfer ("pump-out") of gasoline from a vehicle fuel tank with a capacity of 5 gallons or more into a stationary storage container or delivery vessel unless the rate at which gasoline is allowed to drip outside an area that drains back into the vehicle fuel tank is less than 3 drops per minute.

# H. Maintenance Inspection

- i. The owner/operator of a gasoline dispensing facility shall, at a minimum, verify the following on each day that fuel is delivered:
  - a. The spill container is clean and does not contain gasoline. The spill containment drain valve is seating properly.
  - b. The fill caps and gaskets are not missing, damaged or loose.
  - c. The spring-loaded submerged fill pipe seals properly against the coaxial fitting.
  - d. The dry break (poppet valve) is not missing or damaged.
  - e. The submerged fill pipe is not missing or damaged.
- ii. Any equipment with a major defect listed in the VRED List shall be removed from service and tagged to ensure that is not used until it is repaired and brought into compliance before being returned to service.
- iii. The owner or operator of a vapor recovery system shall insure that the removal from service of one component of a vapor recovery system with multiple components will not result in gasoline liquid or vapors entering the atmosphere.

iv. Defects discovered during the maintenance inspection and repaired in accordance with Title 17, Division 3, Subchapter 7.5, Chapter 1, Section 93101 of California Code of Regulations such that after repair gasoline liquid or vapors do not enter the atmosphere shall not constitute a violation of this Rule.

# 4.4 Administrative Requirements

# A. Certification

- i. Installers/contractors shall not install, alter, repair or replace a vapor recovery system unless they meet all of the following requirements:
  - a. Are certified by the International Code Council (ICC) for Vapor Recovery System Installation and Repair, and, if required by the Executive Order, certified by the system manufacturer.

- b. Maintain valid certifications as required in paragraph (a).
- c. Have and make available on site proof of any and all certifications required by this Rule, the Executive Order and the Installation, Operation and Maintenance Manual in order to install or maintain specific systems.
- ii. Testers shall not test a vapor recovery system unless they meet all of the following requirements:
  - a. Effective 3 months after a certification test is available, be certified by the International Code Council (ICC) for Vapor Recovery System Testing and Repair.
  - b. If required by the Executive Order, be certified by the system manufacturer.
  - c. Maintain valid certifications as required in paragraphs (a) and (b).
  - d. Have and make available on site proof of any and all certifications required by this Rule, the Executive Order and the Installation, Operation and Maintenance Manual in order to test specific systems.

# B. Notification of Testing

At least 7 days prior to performance or re-verification testing, the owner or operator shall notify the Air Pollution Control Officer of the exact date and time of the test. If the vapor recovery system fails any of the applicable tests and the necessary repairs are performed that same day, the owner or operator may retest the vapor recovery system on the same day without re-notification, provided that the reasons for the test failure and any repairs performed are properly documented in the test reports and repair records.

# C. Test Requirements for Vapor Recovery System

The following requirements are to verify the proper operation of a vapor recovery system.

i. Required Tests: Unless otherwise specified in the applicable CARB Executive Orders, performance and reverification tests shall include the following, as applicable, according to the test methods specified in Section 5.1 of this rule:

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- a. Static Torque of Rotatable Adaptors Test
- b. Leak Rate of Drop Tube Test
- c. Leak Rate of Drop Tube Overfill Protection Devices and Spill Container Drain Valves
- d. Leak Rate and Cracking Pressure of P/V Valves Test, and
- e. Static Leak Tests
- ii. Initial Tests: Within 30 calendar days of completion of construction or modification of any vapor recovery system, the owner or operator shall conduct and pass all applicable performance tests.
- iii. Testing Frequency: The owner/operator of a gasoline dispensing facility shall perform and pass all applicable reverification tests annually within 30 days of the end of each annual period following the most recent successful tests, or more frequently as required by the applicable CARB Executive Order.

# Part 5.0 Monitoring and Records

# 5.1 <u>Testing Procedure</u>

The performance and reverification tests shall be conducted in accordance with the following test methods. All test methods referenced in this section shall be the most recent version approved by the U.S. Environmental Protection Agency, CARB, and the Air Pollution Control Officer or as stated in the applicable Executive Orders.

- A. Vapor Pressures: Vapor pressures shall be determined by ASTM D2879-97 (Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, 1997); ASTM D323-94 (Test Method for Vapor Pressure of Petroleum Products ((Reid Method)), 1994); or ASTM D5191-07 (Standard Test Method for Vapor Pressure of Petroleum Products ((Mini Method)), 2007).
- **B.** Vapor Tight:
  - i. For delivery vessels other than mobile fuelers, CARB Vapor Recovery Test Procedure TP-204.3 shall be used to determine vapor tight condition.
  - ii. For all other operations, EPA Reference Method 21 shall be used to determine vapor tight condition.
- **C.** Static Torque of Rotatable Phase I Adaptors: CARB Test Procedure TP-201.1B.

- **D.** Leak Rate of Drop Tube/Drain Valve Assembly Test: CARB Test Procedure TP-201.1C.
- E. Leak Rate of Drop Tube Overfill Protection Devices and Spill Container Drain Valves: CARB Test Procedure TP-201.1D
- F. Leak Rate and Cracking Pressure of P/V Valves Test: CARB Test Procedure TP-201.1E
- **G.** Static Leak Tests: CARB Test Procedure TP-201.3 or TP-201.3B as applicable.
- H. Those vapor recovery systems whose CARB Executive Orders specify different tests to be performed instead of, or in addition to, the referenced test methods, or which, by their design, preclude the use of the referenced test methods, shall be tested in accordance with the test procedures specified in the applicable CARB Executive Orders or their equivalents as approved by the APCO and EPA.
- I. Multiple Test Methods: When more than one test method or set of test methods is specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of this rule.

# 5.2 <u>Recordkeeping</u>

A person subject to this rule shall maintain the following records onsite and make them available for review by the Air Pollution Control Officer immediately upon request.

- A. Results of the tests specified in Section 4.4(C) shall be delivered to the Air Pollution Control Officer within thirty (30) days of the completion of the test. The test results shall contain the following information:
  - i. Name, location, address, and telephone number of the facility tested, and Northern Sierra Air Quality Management District permit number
  - ii. Name, address and phone number of the person or company performing the test
  - iii. Date of the test
  - iv. Test data

- v. Statement of pass or fail
- **B.** Maintenance inspection reports shall include at least the following:
  - i. Date and time of inspection
  - ii. List of defects from the VRED List that are applicable to the vapor recovery equipment and have a verification procedure of "direct observation" or "direct measurement"
  - iii. Notation by person performing inspection whether each defect is present
  - iv. Description of any defects discovered
  - v. Action taken upon discovery of a defect
  - vi. Name and signature of person performing inspection
- **C.** The following records must be retained by the owner or operator for a period not less than 3 years (5 years for sources subject to the requirements of Rule 522, Title V Federal Operating Permit Program):
  - i. Maintenance records for the vapor recovery system
  - ii. Repair records for the vapor recovery system
  - iii. Maintenance inspection reports
  - iv. Records of repairs performed as a result of defects discovered during maintenance inspections
  - v. Performance test results
  - vi. Reverification of performance test results

### Rule 215Phase II Vapor Recovery System Requirements

A. No owner or operator of a retail service station shall transfer, permit the transfer, or provide equipment for the transfer of gasoline from a stationary storage tank at a retail service station into a motor vehicle fuel tank unless an ARB-certified Phase II vapor recovery system is installed and used during transfer.

## B. Exemptions to Rule 215 A

# 1. **Phase I Exempted Tanks**

A transfer of gasoline from a stationary storage tank which is exempt from Phase I requirements pursuant to <u>Rule 214 B</u>.

## 2. Facilities With Less than 480,000 Gallons Annual Output

A transfer of gasoline from an existing retail service station with an annual gasoline throughput of 480,000 or fewer gallons. After the throughput exceeds 480,000 gallons this exemption shall expire on January 1 of the following year.

## C. <u>Compliance Schedule</u>

## 1. <u>1988 Throughput in Excess of 480,000 Gallons</u>

If during calendar year 1988, the gasoline throughput from an existing retail service station meets or exceeds 480,000 gallons, the owner or operator of the retail service station shall:

- a. Immediately notify the Air Pollution Control Officer, in writing, in advance of the intended Phase II vapor recovery installation; and
- b. Secure all necessary permits and other approvals for the installation of the Phase II vapor recovery system within fifteen (15) months from December 15, 1988; and
- c. Install the Phase II vapor recovery system within two (2) years from December 15, 1988.

# 2. <u>Throughput in Excess of 480,000 Gallons After 1988</u>

If during any calendar year or portion of a calendar year <u>after</u> 1988, the gasoline throughput from an existing retail service station meets or exceeds 480,000 gallons, the exemption pursuant to <u>Rule 215 B. 2</u> will expire. Upon expiration of this exemption the owner or operator of the retail service station shall:

- a. Immediately notify the Air Pollution Control Officer, in writing, in advance of the intended Phase II vapor recovery installation; and
- b. Secure all necessary permits and other approvals for the installation of the Phase II vapor recovery system within fifteen (15) months from the date the exemption expires; and
- c. Install the Phase II vapor recovery system within two (2) years from the date the exemption expires.

# 3. <u>New Retail Service Station</u>

The owner or operator of any new retail service station shall install and use an ARB-certified Phase II vapor recovery system at the time gasoline is first delivered to the facility.

# 4. <u>Tank Replacement</u>

At the time of tank replacement at an existing service station, an ARB-certified Phase II vapor recovery system shall be installed and used thereafter on all of the station's facilities, unless exempted by <u>Rule 214.B</u> (Phase I).

# D. **Operation and Maintenance**

1. A person shall not transfer, permit the transfer, or provide equipment for the transfer of gasoline from a stationary storage tank subject to the provisions of <u>Rule 215 A</u> (Phase II) into any motor vehicle fuel tank unless:

- a. The vapor recovery system is operating in accordance with the manufacturer's specifications and is maintained to be leak free, vapor tight, and in good working order; and
- b. The equipment subject to this rule is operated and maintained with none of the following defects, pursuant to the definitions in the California Code of Regulations, Section 94006, Subchapter 8, Chapter 1, Part III, of Title 17:
  - Absence or disconnection of any component required to be used in the system as certified by the California Air Resources Board;
  - 2) A vapor hose which is crimped or flattened such that the vapor passage is blocked;
  - 3) A nozzle boot which is torn in one or more of the following manners:
    - a) Triangular-shaped or similar tear 1/2 inch or more to a side, or hole 1/2 inch or more in diameter or;
    - b) Slit 1 inch or more in length.
  - 4) Faceplate or flexible cone which is damaged in the following manner:
    - a) For balance nozzles and for nozzles for aspirator and eductor assist type systems, damage shall be such that the capability to achieve a seal with a fill pipe interface is affected for 1/4 of the circumference of the faceplate (accumulated);
    - b) For nozzles for vacuum assist type systems, more than 1/4 of the flexible cone is missing;
  - 5) Nozzle shutoff mechanisms which malfunction or are blocked;

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- 6) Vapor return lines, including such components as swivels, anti-recirculation valves and underground piping, which malfunction or are blocked;
- 7) Vapor processing unit which is inoperative or severely malfunctioning;
- 8) Vacuum producing device which is inoperative or severely malfunctioning;
- 9) Pressure/vacuum relief valves, vapor check valves, or dry breaks which are inoperative;
- 10) Any equipment defect which is identified in a California Air Resources Board system certification as substantially impairing the effectiveness of the system in reducing air contaminants.

### c. <u>Posting of Operating Instructions</u>

The owner or operator of each gasoline dispensing facility requiring a Phase II vapor recovery system shall conspicuously post in the gasoline dispensing area operating instructions for the system and the District's or the Air Resources Board's telephone number for complaints. The instructions shall clearly describe how to fuel vehicles correctly with the vapor recovery nozzles, and shall include a warning that topping off may result in spillage or recirculation of gasoline.

## E. Defective Phase II Equipment - Prohibition of Use

Whenever the Air Pollution Control Officer or his designee determines that a Phase II vapor recovery system, or any component thereof, contains a defect specified by the Air Resources Board pursuant to <u>Rule 215 D.</u> <u>1.a., 1.b</u>, the Air Pollution Control Officer or his designee shall mark such system or component "Out of Order". No person shall use or permit the use of such marked component or system until it has been repaired, replaced, or adjusted as required to permit proper operation, and the Air Pollution Control Officer or his designee has reinspected it or has authorized its use pending reinspection.

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### Rule 216 Delivery Vessels Equipped With Vapor Recovery

#### A. Vapor Tight Requirement

No person shall store gasoline in or otherwise use or operate any gasoline delivery vessel unless such vessel is designed and maintained to be vapor tight. A person shall not allow loading or unloading of gasoline, or other use or operation of any vapor recovery equipped transporting vessel unless the vessel has a valid certification of vapor integrity as defined by the applicable Air Resources Board Certification and Test Procedures, pursuant to Health and Safety Code Section 41962 (g) and the California Code of Regulations Title 17, Section 94004. Hatch openings of no more than three minutes in duration are permitted for visual inspection provided that pumping has been stopped for at least 3 minutes prior to opening, and the hatch is closed before pumping is resumed.

### B. Loading Requirements

No owner or operator of any vapor recovery equipped gasoline delivery vessel shall load, permit the loading or provide equipment for the loading of gasoline into such a vessel unless an ARB-certified vapor recovery system or its equivalent, approved by the Air Pollution Control Officer, is used during the transfer.

## C. <u>Unloading Requirements</u>

The owner or operator of any vapor recovery equipped gasoline delivery vessel shall, when unloading gasoline to any Phase I equipped storage tank, use a Phase I vapor recovery system or its equivalent approved by the Air Pollution Control Officer. Vapor recovery equipped gasoline delivery vessels shall not be prevented from unloading gasoline to storage tanks which are <u>not</u> equipped with a Phase I vapor recovery system.

### Rule 217 Delivery Vessels Not Equipped With Vapor Recovery

#### A. Loading Requirements

No owner or operator of any delivery vessel which is <u>not</u> equipped with vapor recovery shall load, permit the loading or provide equipment for the loading of such a vessel unless the gasoline is loaded through a submerged fill pipe or its equivalent approved by the Air Pollution Control Officer.

## B. Unloading Requirements

The owner or operator of any delivery vessel which is <u>not</u> equipped with vapor recovery shall only unload gasoline to storage tanks which are not equipped with a Phase I vapor recovery system.

## Rule 218 Vapor Collection And Disposal System at Loading Facilities

### A. Vapor Recovery Required

A person shall not load any organic liquids having a vapor pressure of 10.34 kPa (1.5 PSI) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car from any loading facility having an annual throughput of five million (5,000,000) gallons or more unless the loading facility is equipped with a vapor collection and disposal system as specified below, or its equivalent approved by the Air Pollution Control Officer.

## B. Vapor Recovery Criteria

Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor collection system. The vapor disposal portion of the collection and disposal system shall consist of one of the following:

- 1. An adsorber system, condensation system, incineration system, or combination system which processes all vapors and which limits the emission of vapors and gases to no more than 0.5 pounds of non-methane hydrocarbons per 1,000 gallons of organic liquids transferred, as determined by CARB Test Method 2-3 or by an equivalent method approved by the APCO in writing.
- 2. A vapor handling system which directs all vapor to a fuel gas system.
- 3. Other equipment of an efficiency equal to or greater than that specified in Sections A or B if approved by the Air Pollution Control Officer.

## C. Equipment Maintenance

All equipment associated with loading operations shall be maintained to be leak free and vapor tight.
## Rule 219 Storage of Gasoline Products at Bulk Facilities

A person shall not place, store, or hold gasoline in any stationary tank, reservoir or other container of more than forty thousand (40,000) gallons capacity unless such tank, reservoir, or other container is a pressure tank maintaining working pressures sufficient at all times to prevent gasoline vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, and in good working order:

# A. <u>A Floating Roof of An Approved Type</u>

The control equipment provided for in this paragraph shall not be used if the gasoline has a vapor pressure of eleven (11.0) pounds per square inch absolute or greater under actual storage conditions. All tank gauging and sampling devices shall be gas tight except when gauging or sampling is taking place.

# B. <u>A Vapor Recovery System</u>

A vapor recovery system, of efficiency equivalent to a floating roof meeting the requirements of A above, consisting of a vapor gathering system capable of collecting the gasoline vapors and gases discharged and a vapor disposal system capable of processing such gasoline vapors and gases so as to prevent their emissions to the atmosphere and with all tank gauging and sampling devices gas tight except when gauging or sampling is taking place.

# C. Other Equipment

Other Equipment of equal efficiency, provided such equipment is submitted to and approved by the Air Pollution Control Officer.

## Rule 220 New or Modified Bulk Petroleum Facilities

Any new or major modified bulk loading facility as of December 15, 1988 shall install bottom loading equipment at the time of installation or modification.

### Rule 221 Reduction of Animal Matter

A person shall not operate or use any article, machine, equipment or other contrivance for the reduction of animal matter unless all gases, vapors and gasentrained effluents from such an article, machine, equipment or other contrivance are:

- A. Incinerated at temperatures of not less than 1,200 degrees Fahrenheit for a period of not less than 0.3 seconds, or
- B. Processed in such a manner determined by the Air Pollution Control Officer to be equally, or more, effective for the purpose of air pollution control than (A) above.

A person incinerating or processing gases, vapors, or gas-entrained effluents pursuant to this Rule shall provide, properly install and maintain in calibration, in good working order, and in operation, devices as specified in the Authority to Construct or Permit to Operate or as specified by the Air Pollution Control Officer, for indicating temperature, pressure, or other operating conditions. For the purpose of this Rule "reduction" is defined as any heated process, including rendering, cooking, drying, dehydration, digesting, evaporating and protein concentrating.

The provisions of this Rule shall not apply to any article, machine, equipment, or other contrivance used exclusively for the processing of food for human consumption.

# **<u>Rule 222</u>** <u>Abrasive Blasting</u>

By reference Title 17, Subchapter 6, of the California Code of Regulations shall apply.

# Rule 223Enforcement

These Rules and Regulations shall be enforced by the Air Pollution Control Officer under authority of Section 40001, 40702, 40752, and all officers empowered by Section 40120.

#### Rule 224Existing Sources

In any case where Regulation II imposes standards different than the standards applicable to an existing source of emission (on day before adoption of new Regulation 1974), and the source of emissions was in compliance, under variance, or authority to construct, with the less restrictive standards applicable on such date, then the source shall remain in compliance with such Rule, until modified or until July 1, 1984, whichever occurs first. In no event is any modification to cause an increase in emissions over that being emitted prior to such modification.

# Rule 225Compliance Tests

Except as otherwise provided in these Rules and Regulations, performance tests undertaken to determine compliance of sources with Regulation II shall comply with the provisions of CFR 40, Part 60, Appendix A except that Method 5 shall be modified to include the impinger train.

### **RULE 226 - DUST CONTROL**

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# **RULE 226**

# **DUST CONTROL**

## RULE 226 DUST CONTROL

### PART 1.0 GENERAL

#### 1.1 <u>Purpose</u>

The purpose of this rule is to reduce and control fugitive dust emissions to the atmosphere.

### 1.2 <u>Applicability</u>

This rule shall apply to any person engaged in:

- a. Dismantling or demolition of buildings;
- b. Public or Private Construction;
- c. Mining;
- d. Processing of solid bulk materials (i.e., sand, gravel, rock, dirt, sawdust, ash, etc.)
- e. Operation of machines or equipment;
- f. Operation and use of unpaved parking facilities;
- g. Operation and use of livestock and/or horse arenas;
- h. Operation of feed lots;
- i. Operation and use of raceways for animals or motor vehicles.

#### 1.3 <u>Exemptions:</u>

The requirements set forth in <u>Part 3.0 - Standards</u> do not apply to commercial agricultural operations.

#### PART 2.0 DEFINITIONS

#### **Bulk Materials:**

Any unpackaged material which emits dust when stored or handled (i.e., dirt, sand, gravel, sawdust, ash, rock, etc.).

#### Chemical Soil Stabilization/Suppression:

A means of dust control implemented by any person to mitigate PM 10 emissions by applying petroleum resins, asphaltic emulsions, acrylics, adhesives, or any other approved materials.

#### **Construction Site:**

A site on which construction, demolition, or related activities occur, including, but not limited to, land clearing, excavation related to construction, land leveling, grading, cut and fill grading, and the erection or demolition of a structure. As used in this Rule, a construction site may encompass several contiguous parcels, or may encompass only a portion of one parcel, depending on the relationship of the property boundaries to the actual construction activities.

#### **Disturbed Area:**

An area in which soils have been disturbed by grading, land leveling, scraping, cut and fill activities, excavation, brush and timber clearing, grubbing, and soils on which vehicle operation has occurred.

#### **Dust Suppressants:**

Water, hygroscopic materials, chemical stabilization palliatives and suppression materials, and other approved substances.

#### **Fugitive Dust:**

The particulate matter entrained in the ambient air which is caused from manmade and natural activities which is emitted into the air without first passing through a stack or duct designed to control flow, including, but not limited to, emissions caused by movement of soil, vehicles, equipment, and wind blown dust. This excluded particulate matter emitted directly in the exhaust of motor vehicles, from other fuel combustion devices, portable brazing, soldering, or welding equipment, and from pile drivers.

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### **Hygroscopic Materials:**

Any material that is readily capable of absorbing moisture from the air.

#### Land Preparation:

Any preparation of land for anthropogenic (human) purposes, including brush or timber clearing, grubbing, scraping, ground excavation, land leveling, or grading.

## **Operation:**

Any activity, process, or project described in the applicability sections of the Rules of this Regulation.

### **Owner/Operator:**

Includes, but is not limited to, any person who leases, supervises, or operates equipment, in addition to the normal meaning of owner or operator.

#### Palliative:

Any dust control agent used to lessen or reduce dust emissions.

#### Particulate Matter:

Any material emitted or entrained into the air as liquid or solid particulates, with the exception of uncombined water. (For PM-10, refer to Definition).

## Paved Roads:

An improved street, highway, alley, public way, or easement that is covered by concrete, asphaltic concrete, asphalt, or other materials which provide a permanent stable surface.

#### Person:

Any individual, public and private corporation, government agency, partnership, association, firm, trust, estate, or any other legal entity which is recognized by law as the subject of rights and duties.

# <u>PM-10:</u>

Particulate matter with an aerodynamic diameter smaller than or equal to a nominal ten (10) microns as measured by the applicable State and Federal reference test methods.

### **Reasonably Available Control Measures:**

Techniques used to limit the emission and/or airborne transport of fugitive dust from a site including: application of water, chemical stabilizers/suppressants, soil stabilizers, or other liquids, covering, paving, enclosing, shrouding, compacting, planting, cleaning, or such other measures the Air Pollution Control Officer may approve to accomplish satisfactory results for temporary and/or extended suppression of PM-10 emissions.

### Road:

Any paved or unpaved, public or private street, highway, freeway, alley way, access drive, access easement, haul road, or driveway.

## Site:

Real property or land used or set aside for any specific use.

## **Unpaved Roads:**

An open way that is not covered by one of the materials described in the paved road definition.

## Vehicle:

Any device by which any person or property may be propelled, moved, or drawn, excepting aircraft or watercraft or devices moved exclusively by human or animal power or used exclusively upon rails or tracks.

#### Visible Dust Emission:

Visible dust of such opacity as to obscure an observer's view to a degree equal to or greater than an opacity of 20%, for a period or periods aggregating more than three (3) minutes in any one (1) hour.

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# PART 3.0 STANDARDS

### 3.1 General Requirements:

Any person shall take all reasonable precautions to prevent dust emissions. Reasonable precautions may include, but are not limited to, cessation of operations, cleanup, sweeping, sprinkling, compacting, enclosure, chemical or asphalt sealing, and use of wind screens or snow fences.

- A. No person may disturb the topsoil or remove ground cover on any real property and thereafter allow the property to remain unoccupied, unused, vacant or undeveloped unless reasonable precautions are taken to prevent generation of dust. A dust control plan must be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed on any project where more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed. In the dust control plan, the Air Pollution Control Officer may require use of palliatives, reseeding, or other means to minimize windblown dust.
- B. For any proposed development, division of land, special use permit application of zone change, the Air Pollution Control Officer may require the applicant to submit soils data and any other pertinent data for the area in which the development is proposed.
- C. If a determination is made that the disturbance (per 3.1.A.) or development (per 3.1.B.) of the site may cause the generation of dust, the Air Pollution Control Officer may require:
  - 1. Phased clearing of the land;
  - 2. The use of palliatives;
  - 3. The use of water;
  - 4. The use of snow fencing;
  - 5. The use of wind screen;
  - 6. Reseeding;
  - 7. Controls of single lot development approved as a part of a land subdivision subject to these regulations.

After commencement of development, if the approved elements of the dust control plan prove ineffective, the Air Pollution Control Officer may require additional control measures to be instituted. Phasing will not be required as a control strategy after a project is under construction.

In the case of subdivisions, condominiums and planned unit developments, a dust control plan must be submitted as part of the final map approval process.

If a development requires a special use permit, the Air Pollution Control Officer may require the dust control plan to be submitted and become a condition of the special use permit process.

- D. No person shall cause or allow the handling or storage of any materials on a manner which results, or may result in the generation of dust.
- E. Any vehicle operating on a paved roadway with a load of any bulk material susceptible to being dropped, spilled, leaked, or other wise escaping therefrom and being entrained in the air, must take one of the following control measures:
  - 1. Six (6) inches of freeboard is maintained within the bed of the vehicle. For the purposes of this regulation, "freeboard" means the vertical distance from the highest portion of the edge of the load to the lowest part of the rim of the truck bed.
  - 2. Materials contain enough moisture to control dust emissions from the point of origin to their final destination. Whenever possible, the use of dust suppressants must be applied in conjunction with the water.
  - 3. In the event that measures 1 or 2 are ineffective in preventing materials from escaping, tarps or other cargo covers shall be employed.

This section does not prohibit a public maintenance vehicle from depositing sand on a paved roadway to enhance traction, or sprinkling water or other substances to clean or maintain a highway.

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F. Paved entry aprons or other effective cleaning techniques (e.g., wheel washers), may be required by the Air Pollution Control Officer to prevent tracking onto paved roadways. Paved entry aprons may include road section or coarse aggregate or steel grate to "knock off" dirt which accumulates on the vehicle and/or vehicle wheels.

> Any material which is tracked onto a paved roadway must be removed (swept or washed) as quickly and as safely as possible. Exceptions to this provision may be made by the Air Pollution Control Officer for the construction, maintenance, and/or repair of paved roadways and for the application of de-icing and traction materials for wintertime driving safety.

#### PART 4.0 ADMINISTRATIVE REQUIREMENTS

### 4.1 Correction of Condition:

If the Air Pollution Control Officer documents that a person is in noncompliance with any of the provisions contained in Subsection 3.1, he will notify the person of that fact and specify a period of time in which the person must achieve compliance. Failure to comply within 24 hours or as the time determined by the Air Pollution Control Officer constitutes grounds for a Notice of Violation (NOV) citation per the District Enforcement Policy.

## 4.2 **Remedial Action:**

The Air Pollution Control Officer, after proper notice, may enter upon any real property where dust is being generated and take such remedial and corrective action as he deems necessary.

#### 4.3 <u>Costs:</u>

Any costs incurred in connection with any remedial or corrective action taken by the Air Pollution Control Officer, pursuant to this section, shall be assessed against the owner of the property involved. Failure to pay the full amount of such incurred costs shall result in a lien against the property. The lien shall remain in effect until all costs have been fully paid, which may include, but are not limited to, cost of collection and reasonable attorney fees.

Adopted 10/19/91

# Rule 227 Cutback and Emulsified Asphalt Paving Materials

# **1.0 General Requirements**

### 1.1 Applicability

A person shall not discharge to the atmosphere volatile organic compounds (VOC's) caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction or road maintenance, unless such manufacture or use complies with the provisions of this Rule.

### 1.2 Exemptions

The provisions of Section 3.0 shall not apply to:

1.2.1 The use of cutback asphalt or emulsified asphalt in the manufacturing of paving materials where such materials are for immediate shipment and eventual use outside of the federal non-attainment area known as Western Nevada County, State of California, and where such area is designated as attainment for the State and Federal Ozone Standard.

1.2.2 The use of medium cure cutback asphalt during the months of the year when the National Weather Service forecasts that atmospheric temperature for the 24-hour period following application will not exceed  $10^{\circ}$  C ( $50^{\circ}$  F).

# 2.0 Definitions

<u>2.1 Asphalt</u>: A dark brown to black cementitious material (solid, semisolid, or liquid in consistency) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining.

<u>2.2 Cutback Asphalt</u>: Paving grade asphalts liquified with petroleum distillate and conforming to specifications of the American Society for Testing & Materials (ASTM) as follows:

, Rapid Cure Type: ASTM D2028 Medium Cure Type: ASTM D2027 Slow Cure Type: ASTM D2026

2.3 Emulsified Asphalt: Any asphalt liquified with water containing an emulsifier.

<u>2.4 Paving Material</u>: A mixture consisting mainly of an asphalt and aggregate. <u>2.5 Paving and Maintenance Operations</u>: All activities involved in the new construction and maintenance of roadways and parking areas.

# 3.0 Standards

## 3.1 Cutback Asphalt

3.1.1 A person shall not manufacture for sale nor use for paving, road construction or road maintenance any:

3.1.2 Rapid cure cutback asphalt;

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3.1.3 Slow cure cutback asphalt containing organic compounds which evaporate at 260° C (500° F) or lower as determined by current ASTM Method D402, or;
3.1.4 Medium cure cutback asphalt except as provided in

Section 1.2. 3.2 Emulsified Asphalt

3.2.1 A person shall not manufacture for paving, road construction or road maintenance any emulsified asphalt containing organic compounds in excess of three percent by volume which evaporate at 260° C (500° F) or lower, as determined by current ASTM Method D244.

# 4.0 Administrative

4.1 Test Methods

4.1.1 Analysis of Cutback Asphalt samples for VOC content shall be in accordance with current ASTM Method D402. 4.1.2 Analysis of Emulsified Asphalt samples for VOC content shall be in accordance with current ASTM Method D244, in excess of three percent by volume.

4.2 Recordkeeping

4.2.1 Any person who manufactures or uses cutback asphalts and emulsified asphalts which contain solvents shall comply with the following requirements:

4.2.2 The manufacturer shall maintain records showing the types and amounts of cutback asphalts and emulsified asphalts which contain solvents produced and the destination of these products.

4.2.3 The users shall maintain records showing the types, amounts received, and amounts used of cutback asphalts and emulsified asphalts which contain solvents.

4.2.4 Such records shall be maintained daily and retained and available for inspection by the APCO for the previous 24 month period.

4.2.5 In addition to the recordkeeping requirements as specified herein, all provisions of Regulation V, Rule 513, when applicable, must be adhered to.

### Rule 228 Surface Coating of Metal Parts and Products

## Part 1.0 General

### 1.1 Applicability

Provisions of this Rule shall apply to surface coating of metal parts and products in portions of the Northern Sierra Air Quality Management District that are designated as Non-attainment for any federal ambient air quality standard for ozone (per 40 CFR 81.305).

### 1.2 Exemptions

1.2.1 Requirements of this Rule, except for Subsection 4.2 (Record Keeping), shall not apply to coating operations at facilities where total uncontrolled facility VOC emissions (excluding exempt compounds) from use of all coatings does not exceed 2.7 tons per rolling 12-month period (average of 15 pounds per day).

1.2.2 Requirements of Subsection 3.3 (Application Equipment Requirements) of this Rule shall not apply to touch-up, repair, textured finishing or stenciling of identification numbers and letters, although VOC limits and work practices specified herein shall apply to such coatings. 1.2.3 Requirements of this Rule shall not apply to coating of automobiles, light duty trucks, mobile equipment, aircraft, aerospace vehicles, marine vessels, cans, coils, magnetic wire, or magnetic data storage disks, or to coating with polyester resins, aerosol coatings or powder coatings. 1.2.4 VOC limits and application methods specified herein shall not apply to graphic arts printing and coatings, stencil coatings, safety-indicated coatings, solid-film lubricant coatings, electric-insulating and thermalconducting coatings, or plastic extruded onto metal parts to form a coating, although work practices specified herein shall apply to such coatings.

1.2.5 Up to 55 gallons of coatings exceeding the VOC content limits specified in section 3.1 and 3.2.1 may be used by a facility (including all units at that facility) per rolling twelve-month period.

1.2.6 The provisions of this rule shall not apply to stripping of cured coatings, cured adhesives, and cured inks, except the stripping of such materials from spray application equipment.

#### 1.3 Effective Date

This regulation shall become effective July 1, 2011. Until the effective date, the previously adopted version of Rule 228 shall remain effective.

### Part 2.0 Definitions

<u>Air Dried Coating</u>: A coating that is cured at a temperature below 194 degrees F (90 degrees C).

<u>APCO:</u> Air Pollution Control Officer or Executive Director of the Northern Sierra Air Quality Management District, or an authorized representative thereof.

ARB: California Air Resources Board.

**<u>Baked Coating</u>**: A coating that is cured at a temperature at or above 194 degrees F (90 degrees C).

**<u>Camouflage Coating</u>**: A coating used to conceal items or equipment from visual detection.

<u>Clear Coating</u>: A coating that either lacks color and opacity, or is transparent, and uses the surface to which it is applied as a reflective base or undertone color.

<u>Control Device</u>: Equipment such as an incinerator or absorber used to prevent air pollutants from reaching the ambient air.

**<u>Dip Coat</u>**: A coating method which is applied by dipping an object into a vat of coating material and allowing any excess coating material to drain off.

**Drum Coating:** A coating used on a metal drums having a capacity ranging from 12 to 110 gallons.

<u>Electrostatic Application</u>: The electrical charging of atomized coating droplets for deposition by electrostatic attraction.

**Emission Control System**: A control device and its associated collection system.

<u>Electric-Insulating Varnish</u>: A non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.

**EPA**: United States Environmental Protection Agency.

**Etching Filler**: A coating that contains less than 23 percent solids by weight and at least 1/2-percent acid by weight, and is used instead of applying a pretreatment coating followed by a primer.

**Exempt Compounds:** Any compound specifically excluded from the definition of Volatile Organic Compound (VOC) in the Federal Register, codified at 40 CFR Part 51.100(s), as having negligible atmospheric photochemical reactivity.

**Extreme High-Gloss Coating:** A coating which, when tested by the American Society for Testing Material (ASTM) Test Method D523 (Standard Test Method for Specular Gloss, 1980), shows a reflectance of 75 or more on a 60° meter.

**Extreme-Performance Coating:** A coating that is used on a metal surface where the coated surface, in it's intended use, is acutely or chronically exposed to salt water, corrosives, caustics, acids, oxidizing agents, wind or ocean driven debris, electromagnetic pulse or temperatures exceeding 250°F.

**Flow Coat**: A non-atomized technique of applying coatings to a substrate with a fluid nozzle in a fan pattern with no air supplied to the nozzle.

Heat-Resistant Coating: A coating that must withstand a temperature of at least 400°F during normal use.

High-Performance Architectural Coating: A coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association's publication number AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels).

<u>**High Temperature Coating:</u>** A coating that is certified to withstand a temperature of 1000 degrees F (538 degrees C) for 24 hours.</u>

**High-Volume, Low-Pressure Application (HVLP)**: Spray equipment which is designed to operate and is operated using a high volume of air delivered at atomized air pressures between 0.1 to 10.0 psig measured dynamically at the center of the air cap and at the air horns and which operates at a maximum fluid delivery pressure not exceeding the manufacturer's recommended inlet air pressure.

<u>Metal Parts and Products</u>: Any metal parts or products except for those subject to coating requirements of other source-specific rules.

<u>Metallic Coating</u>: A coating which contains more than 5 grams of metal particles per liter of coating as applied. "Metal particles" are pieces of a pure elemental metal or a combination of elemental metals.

<u>Military Specification Coating</u>: A coating which has a formulation approved by a United States Military Agency for use on military equipment.

<u>Mold-Seal Coating</u>: The initial coating applied to a new mold or repaired mold and associated tooling to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold or to the tooling.

<u>Multi-Component Coating</u>: A coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to form an acceptable dry film.

**<u>One-Component Coating</u>**: A coating that is ready for application as it comes out of its container to form an acceptable dry film. A thinner, necessary to reduce the viscosity, is not considered a component.

**Pan Backing Coating:** A coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.

**<u>Powder Coating</u>**: Any coating applied as a dry (without solvent or other carrier) finely divided solid, which when melted and fused, adheres to the substrate as a paint film.

**Prefabricated Architectural Component Coating:** Any coating applied to metal parts and products which are intended for use as components of architectural structures.

**Pretreatment Coatings:** Any coating, including wash primer, which contains no more than 12 percent solids by weight, and at least ½-percent acid, by weight, is used to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and/or ease of stripping.

**<u>Repair Coating</u>**: Recoating portions of previously coated product due to mechanical damage to the coating following normal painting operations.

**Roll Coater:** A series of one or more mechanical rollers operating via the formation of a thin coating film on the surface of the roller(s), which is applied to a substrate by moving the substrate underneath the roller(s).

<u>Silicone-Release Coating</u>: Any coating which contains silicone resin and is intended to prevent food from sticking to surfaces such as baking pans.

**Solar-Absorbent Coating**: A coating which has as its prime purpose the absorption of solar radiation.

**<u>Stripping</u>**: The use of solvent to remove material such as cured adhesives, cured inks, cured or dried paint, cured or dried paint residue or temporary protective coating.

**Touch-Up Coating**: Any coating used to cover minor coating imperfections appearing after the main coating operation.

<u>**Transfer Efficiency**</u>: The ratio of the weight of coating solids which adhere to the object being coated to the weight of coating solids used in the application process, expressed as a percentage.

<u>Vacuum-Metalizing Coating</u>: The undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film.

**Volatile Organic Compound (VOC)**: As defined in the Federal Register and codified at 40 CFR Part 51.100(s).

**<u>Zinc Filled Primer</u>**: Any coating which has an elemental zinc content of not less than 240 grams/liter (2.0 pounds/gallon) of coating as applied.

# Part 3.0 Requirements

## 3.1. VOC Content Limits

Except as provided in Subsection 3.2, no person shall apply to any metal part or product any coating with a VOC content in excess of the following limits as applied:

VOC Content Limits (Weight of VOC per Volume of Coating,

Less Water and Exempt Compounds)					
	Air Dried Air D	ried B	aked B	laked	
Coating Category	<u>kg VOC/IIb VO</u>	<u>)C/gal k</u>	<u>g VOC/Ilk</u>	o VOC/gal	
General Use, One-Component	0.34	2.8	0.28	2.3	
General Use, Multi-Component	0.34	2.8	0.28	2.3	
Camouflage	0.42	3.5	0.42	3.5	
Electric-Insulating Varnish	0.34	2.8	0.28	2.3	
Etching Filler	0.42	3.5	0.42	3.5	
Extreme High-Gloss	0.42	3.5	0.36	3.0	
Extreme Performance	0.42	3.5	0.36	3.0	
Heat-Resistant	0.42	3.5	0.36	3.0	
High Performance Architectural	0.42	3.5	0.42	3.5	
High Temperature	0.42	3.5	0.42	3.5	
Metallic	0.42	3.5	0.42	3.5	
Military Specification	0.34	2.8	0.28	2.3	
Mold-Seal	0.42	3.5	0.42	3.5	
Pan Backing	0.42	3.5	0.42	3.5	
Prefab Architectural Multi-Component	0.42	3.5	0.28	2.3	
Prefab Architectural One-Component	0.42	3.5	0.28	2.3	
Pretreatment Coatings	0.42	3.5	0.42	3.5	
Repair and Touch-up	0.42	3.5	0.36	3.0	
Silicone Release	0.42	3.5	0.42	3.5	
Solar-Absorbent	0.42	3.5	0.36	3.0	
Vacuum-Metalizing	0.42	3.5	0.42	3.5	
Drum Coating, New, Exterior	0.34	2.8	0.34	2.8	
Drum Coating, New, Interior	0.42	3.5	0.42	3.5	
Drum Coating, Reconditioned, Exterio	r 0.42	3.5	0.42	3.5	
Drum Coating, Reconditioned, Interior	0.50	4.2	0.50	4.2	

# 3.2 Alternate Emissions Control

3.2.1 Emission Rate Limitation: In lieu of complying with VOC content limits specified in Subsection 3.1, the following after-control weight-per-volume emission rates constitute compliance with this rule.

VOC Emission Rate Limits (VOC Weight Per Volume Of Solids)						
	Air Dried Air	Dried E	Baked B	aked		
Coating Category	kg VOC/IIb \	/OC/gal.k	<u>kg VOC/Ilb</u>	VOC/gal.		
General Use, One-Component	0.54	4.52	0.40	3.35		
General Use, Multi-Component	0.54	4.52	0.40	3.35		
Camouflage	0.80	6.67	0.80	6.67		
Electric-Insulating Varnish	0.54	4.52	0.40	3.35		
Etching Filler	0.80	6.67	0.80	6.67		
Extreme High-Gloss	0.80	6.67	0.61	5.06		
Extreme Performance	0.80	6.67	0.61	5.06		
Heat-Resistant	0.80	6.67	0.61	5.06		
High Performance Architectural	0.80	6.67	0.80	6.67		
High Temperature	0.80	6.67	0.80	6.67		
Metallic	0.80	6.67	0.80	6.67		
Military Specification	0.54	4.52	0.40	3.35		
Mold-Seal	0.80	6.67	0.80	6.67		
Pan Backing	0.80	6.67	0.80	6.67		
Prefab Architectural Multi-Component	0.80	6.67	0.40	3.35		
Prefab Architectural One-Component	0.80	6.67	0.40	3.35		
Pretreatment Coatings	0.80	6.67	0.80	6.67		
Silicone Release	0.80	6.67	0.80	6.67		
Solar-Absorbent	0.80	6.67	0.61	5.06		
Vacuum-Metalizing	0.80	6.67	0.80	6.67		
Drum Coating, New, Exterior	0.54	4.52	0.54	4.52		
Drum Coating, New, Interior	0.80	6.67	0.80	6.67		
Drum Coating, Reconditioned, Exterior	r 0.80	6.67	0.80	6.67		
Drum Coating, Reconditioned, Interior	1.17	9.78	1.17	9.78		

3.2.2 In lieu of complying with VOC content limits specified in Subsection 3.1 or the emission rate limitation in 3.2.1, air pollution control equipment with a VOC capture and control efficiency of at least 90% may be used in accordance with the manufacturer's recommendations at all times while applying non-exempt coatings and thinners, and while using solvents for cleaning, provided that the facility holds a valid Authority to Construct or Permit to Operate issued by the APCO.

# **3.3 Application Methods**

No person shall coat any metal part or product subject to provisions of Subsection 3.1 or 3.2.1 (but not 3.2.2) unless one or more of the following methods is used in accordance with equipment manufacturer's recommendations: electrostatic application, High Volume Low Pressure (HVLP) spray, flow coat, roll coater, dip coat (including electrodeposition), a system that atomizes principally by hydraulic pressure such as airless spray or air-assisted airless spray, or another application technology achieving a greater transfer efficiency than HVLP.

# 3.4 Work Practices for Solvent Cleaning

The following VOC limits and work practices shall apply to cleaning of spray guns, lines, tanks, floors and spray booths, as well as to cleaning and surface preparation of manufactured parts and products and other cleaning related to activities that are subject to the provisions of this Rule. This subsection does not apply to cleaning of solar cells, laser equipment, electrical and electronic components, scientific instruments, precision optics or application equipment for resins, inks or adhesives; or to small-scale (as determined by the APCO) activities undertaken exclusively for research, product development, performance testing or quality assurance testing; or to the use of pretreatment coatings; or where the capture and control efficiency option in 3.2.2 is employed.

3.4.1 Surface Cleaning and Cleaning of Coatings Application Equipment: Solvents used for surface cleaning of parts and coatings application equipment shall comply with at least one of the following limits:

a. Solvent shall have a VOC content of 25 grams or less per liter (0.21 lb/gal) of material; or

b. Solvent shall have a VOC composite partial pressure of 8 mm Hg or less at 20°C (68°F).

3.4.2 Work Practices for Cleaning -- Devices and Methods: No person shall perform solvent cleaning operations unless the solvent is not atomized during the process and all spent solvent is captured and kept in closed containers. The following cleaning devices or methods may be used:

a. Wipe Cleaning.

b. Spray bottles or containers with a maximum capacity of 16 fluid ounces from which solvents are applied without a propellant induced force or atomization of the contents.

c. Cleaning equipment having a closed solvent container during cleaning operations, except when depositing and removing objects to be cleaned, and closed during non-operation except during maintenance and repair of the cleaning equipment itself.

d. System totally enclosing guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures.

e. Non-atomized solvent flow method collecting cleaning solvent in a container or a collection system closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container.

f. Solvent flushing method discharging solvent into a closed container, except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. Discharged solvent from such equipment shall be collected in containers without atomizing into open air. Solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

# 3.5 Work Practices for Transfer, Storage and Disposal

Regardless of VOC content, all VOC-containing coatings, thinners, solvents, waste materials and used clean-up media (such as rags and other absorbent materials) shall be stored, transferred and transported in non-absorbent, non-leaking containers which shall be kept closed at all times except when filling, using, emptying, mixing, pumping or otherwise actively working with the VOC-containing substances. These materials shall not be disposed of through heating, emptying into a non-airtight container such as a trash can or dumpster, or otherwise allowed to evaporate. General work practices intended to prevent spillage (such as avoiding practices that allow materials to run down the outside of a drum or can and keeping containers where they are not likely to be knocked over) shall be employed.

# 3.6 Prohibition of Specification

No person shall solicit or require for use or specify application of a coating on metal parts and products if such use or application results in a violation of provisions of this Rule. This prohibition shall apply to all written or oral contracts under terms of which any coating subject to provisions of this Rule is to be applied to any metal part or product.

# Part 4.0 Administrative Requirements

# 4.1 Labeling Requirements

4.1.1 VOC Content: Each container (or accompanying data sheet) of any coating subject to this Rule shall display maximum VOC content of the coating as applied, including coating components, and after any thinning as recommended by the manufacturer. VOC content shall be displayed as grams of VOC per liter less water and exempt compounds. VOC content displayed shall be determined using Subsection 5.1. test methods or calculated using product formulation data.

4.1.2 Thinning Recommendations: Each container (or accompanying data sheet) of any coating subject to this Rule shall display a statement of manufacturer's recommendation regarding thinning of the coating. This requirement shall not apply to thinning of coatings with water.

# 4.2 Record Keeping Requirements

Any person subject to Section 3 or exempt by Subsection 1.2.1 shall maintain and have available for inspection:

A current list of VOC containing products in use containing all data necessary to evaluate compliance, including the following information, as applicable:

4.2.1 Product name, type and manufacturer.

4.2.2 Application method.

4.2.3 Usage instructions.

4.2.4 Mixing instructions.

4.2.5 Maximum VOC content of coating as applied, including thinning solvents, hardeners and other additives, and excluding water and exempt compounds.

4.2.6 Coating composition and density.

Monthly coating and solvent use records, including the following information for each:

4.2.7 Volume and mix ratio of each component used.

4.2.8 VOC content in grams/liter (or pounds/gallon) as applied/used.

4.2.9 Volume applied/used in liters (or gallons).

Capture and control equipment records, if applicable, including:

4.2.10 Make, model and description of capture and control equipment, along with manufacturer's instructions and operation recommendations.4.2.11 System operating parameters, including times of operation, adequate to demonstrate compliance with this Rule.

4.2.12 Records of all control system maintenance (such as repairs and filter changes), including device, date performed, and description.

All records shall be retained and made available for inspection by the APCO, ARB and EPA for at least three years.

## Part 5.0 Test Methods

The following test methods shall be used to determine compliance with the provisions of this rule if testing is required by the APCO, ARB or EPA. Alternate test methods may be used provided they are approved by the APCO, ARB and EPA. A violation determined by any applicable test method below shall constitute a violation of this Rule.

## 5.1 Analysis of Samples

VOC content of coating materials covered by this Rule shall be determined by U.S. EPA Method 24 (Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, 40 CFR 60, Appendix A) or by manufacturer's formulation data (MSDS sheet). In case of a discrepancy between these approaches, U.S. EPA Method 24 shall take precedence unless it is demonstrated that manufacturer's data are correct.

Analysis of halogenated exempt compounds in coatings shall be performed using ARB Method 432 (Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings).

# 5.2 Determination of Emissions

Emissions of VOC shall be measured by EPA Method 25 (Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, 40 CFR 60, Appendix A), 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, 40 CFR 60, Appendix A), or 25B (Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer, 40 CFR 60, Appendix A), as applicable. Analysis of halogenated exempt compounds in emissions shall be performed using ARB Method 422 (Determination of Volatile Organic Compounds in Emissions from Stationary Sources).

# 5.3 Determination of Capture and Control Efficiency

The capture efficiency of a VOC emission control system's collection device shall be determined according to EPA's "Guidelines for Determining Capture Efficiency," January 9, 1995 and the following EPA Test Methods, as applicable, contained in 40 CFR 51, Appendix M: Method 204A (Volatile Organic Compounds Content in Liquid Input Stream), 204B (Volatile Organic Compounds Emissions in Captured Stream), 204C (Volatile Organic Compounds Emissions in Captured Stream ((Dilution Technique))), 204D (Volatile Organic Compounds Emissions in Uncaptured Stream from Temporary Total Enclosure), Method 204E (Volatile Organic Compounds Emissions in Uncaptured Stream from Building Enclosure), 204F (Volatile Organic Compounds Content in Liquid Input Stream ((Distillation Approach))). The control efficiency of a VOC emission control system's VOC control device shall be determined using EPA Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate ((Type S Pitot Tube)), 40 CFR 60, Appendix A), 2A (Direct Measurement of Gas Volume Through Pipes and Small Ducts, 40 CFR 60, Appendix A), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts, 40 CFR 60, Appendix A), as applicable, for measuring flow rates and EPA Methods 25 (Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, 40 CFR 60, Appendix A), 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, 40 CFR 60, Appendix A), or 25B (Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer, 40 CFR 60, Appendix A), as applicable, for measuring total gaseous organic concentrations at the inlet and outlet of the control device. EPA Method 18 (Measurement of Gaseous Organic Compound Emissions By Gas Chromatography, 40 CFR 60, Appendix A) or ARB Method 422 (Determination of Volatile Organic Compounds in Emissions from Stationary Sources) shall be used to determine the emissions of exempt compounds.

# 5.4 Quantification of Metal Content in Coatings

The quantification of metal content, for purposes of determining coating definitions or applicability of this Rule, shall be determined by South Coast Air Quality Management District Method 318-95 (Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction).

# 5.5 Measurement of Acid Content

Acid content of pre-treatment wash primers and etching fillers shall be conducted and reported in accordance with ASTM D1613 (Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates used in Paint, Varnish, Lacquer, and Related Products, 1996).

## 5.6 Demonstration of Transfer Efficiency

Transfer efficiency shall be demonstrated using South Coast Air Quality Management District Method TE (Spray Equipment Transfer Efficiency Test Procedure for Equipment User).

# 5.7 Determination of VOC Composite Partial Pressures

VOC composite partial pressures shall be determined using either manufacturer's information regarding formulation or using ASTM methods E168 (Standard Practices for General Techniques of Infrared Quantitative Analysis, 1992), E169 (General Techniques of Ultraviolet Quantitative Analysis, 1993) or E260 (General Gas Chromatography Procedures, 1996) for determination of mole fractions and then summing products of each VOC component's vapor pressure and its mole fraction. For materials containing no non-VOC components, VOC composite partial pressure can be measured directly by ASTM Method D2879 (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, 1997).

# 5.8 Determination of VOC Emissions From Spray Gun Cleaning Systems

VOC emissions from spray gun cleaning systems shall be quantified using South Coast Air Quality Management District Method CS (Solvent Losses from Spray Gun Cleaning Systems).

# Part 6.0 Compliance Schedule

## 6.1 Existing Sources

Any person becoming subject to requirements of this Rule by loss of exemption shall comply with the following increments of progress:

6.1.1 Within 6 months from date exemption is lost, submit a complete Authority to Construct application for control equipment, if necessary.6.1.2 Within 12 months from date exemption is lost, be in full compliance with all requirements of this Rule.

# 6.2 New Sources

Any new proposed surface coating of metal parts or products operation not exempt by Section 1.2 shall demonstrate its ability to comply with the requirements of this Rule prior to issuance of an Authority to Construct permit.

# Rule 229 Solvent Cleaning Operations (Degreasing)

# 1.0 General

1.1 Applicability

This rule shall apply to operations in portions of the Northern Sierra Air Quality Management District (AQMD) that are designated as Non-attainment for any federal ambient air quality standard for ozone and which use organic solvents for cleaning of metal and non-metallic parts and products. There shall be no solvent cleaning of porous or absorbent materials (e.g. cloth, leather, wood, rope, etc.) in any degreasing operation.

1.2 Exemptions

1.2.1 Requirements of this Rule shall not apply to operations resulting in potential emissions, in aggregate, of less than 15 lbs in any one day of VOCs, as determined by the APCO.

1.2.2 Requirements of this Rule shall not apply to wipe cleaning.

1.2.3 Requirements of this Rule shall not apply to cold solvent cleaners having reservoir capacities of 5.0 gallons or less or have an evaporative area of less than 1.0 ft<sup>2</sup> (0.09 m<sup>2</sup>) as long as the reservoir is covered when not in use. 1.2.4 Open-top and conveyorized vapor degreasers which have an air-vapor interface area less than 1.0 m<sup>2</sup> (10.7 ft<sup>2</sup>) are exempt from Sections 3.7.2(2) and 3.7.2(4).

# 2.0 Definitions

2.1 Cold Cleaner: Any batch loaded, non-boiling solvent degreaser.

2.2 Conveyorized Degreaser: Any continuously loaded, conveyorized solvent degreaser, either boiling or non-boiling.

2.3 Freeboard Height: For cold cleaning tanks, freeboard height means the distance from the top of the solvent or solvent drain to the top of the tank. For vapor degreasing tanks, freeboard height means the distance from the solvent vapor-air interface to the top of the degreaser.

2.4 Freeboard Ratio: The freeboard height divided by the width of the degreaser.

2.5 Make-up Solvent: A solvent lost through evaporation, carryout, splashing, leakage, or disposal.

2.6 Open-top Vapor Degreaser: Any batch loaded, boiling degreaser.

2.7 Refrigerated Freeboard Chiller: Any equipment mounted above the condenser equipment which carries a refrigerant (typically in the range -30 to 5°C) to provide a chilled air blanket above the solvent vapor, to reduce emissions from a vapor degreaser.

2.8 Remote Reservoir: A liquid solvent container which is completely enclosed except for a drain opening which allows used non-boiling solvent to drain into it from a separate solvent sink or work area and which is not accessible for immersing parts.

2.9 Solvent: Any organic compound or combination of organic compounds used for the purpose of dissolving oils, grease, waxes, tars, or other substances.

2.10 Ultrasonics: Enhancement of the cleaning process by vibrating the solvent with high frequency sound waves, causing the implosion of microscopic vapor cavities within the liquid solvent.

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2.11 VOC: Volatile Organic Compound, as defined in the Federal Register.

2.12 Wipe Cleaning: A method of cleaning which utilizes a material such as a rag wetted with a solvent, coupled with a physical rubbing process to remove contaminants from metal surfaces.

# 3.0 Equipment Requirements

Any person who employs solvent cleaning (degreasing), shall utilize, unless otherwise exempted by this rule, a device for such cleaning, which includes the following: 3.1. Container

3.1. Container

A container (degreaser) for the solvent and the articles being cleaned.

3.2 Cover

An apparatus or cover which prevents the solvent from evaporating when not processing work in the degreaser.

3.2.1 For cold solvent cleaning, if the initial boiling point of the solvent as defined by ASTM D-1078-78 is less than 248°F (120°C) or if the solvent is heated, or if the solvent is agitated, then the cover must be designed so that it can be opened and closed easily with one hand.

3.2.2 For open-top vapor degreasers, the cover shall be designed such that it can be opened and closed easily without disturbing the vapor zone.

3.2.3 For conveyorized degreasers, covers shall be provided for closing off the entrance and exit during shutdown hours.

# 3.3 Solvent Return Mechanism

A facility for draining cleaned parts such that the drained solvent is returned to the container.

<u>3.4 Label</u>

A permanent and conspicuous label, which lists the appropriate operating requirements contained in Section 4.

# 3.5 Cold Solvent Cleaning – General Equipment

For cold solvent cleaning, if the initial boiling point of the solvent as defined by ASTM D-1078-78 is less than 248°F (120°C) or if the solvent is heated above 50°C, then one of the following control devices shall be used:

3.5.1 A freeboard such that the freeboard ratio is grater than or equal to 0.75.

3.5.2 A water cover if the solvent is insoluble in and heavier than water.

3.5.3 For cold cleaning degreasing, if the solvent initial boiling point as defined by ASTM D-1078-78 is less than 248°F (120°C) then the drainage facility must be internal so that the parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit the cleaning system.

# <u>3.6 Cold Solvent Cleaning – Remote Reservoir Equipment</u>

Remote reservoir cold cleaners shall be equipped with the following:

3.6.1 A tank or sink-like work area which is sloped sufficiently to preclude pooling of solvent.

3.6.2 A single drain hole, less than 100 square centimeters (15.5 square inches) in area, for the solvent to flow from the sink into the enclosed reservoir.

3.6.3 A freeboard height of at least six inches (14 cm).

3.6.4 A cover for the drain when no work is being processed in the degreaser.

### 3.7 Open Top Vapor Degreasers and Conveyorized Degreasers

If open-top vapor degreasing or conveyorized degreasing are employed, then the following equipment shall be utilized:

3.7.1 All of the following safety devices:

1. A device which shuts off the sump heat if either the condenser coolant stops circulating or becomes warmer than specified and an operating temperature indicator.

 2. For degreasers of the spray type, a device which prevents spray pump operation unless the solvent vapor level is at the designed operating level.
 3. A device (of the manual reset type) which shuts off the sump heat if the solvent vapor level rises above the designed operating level.

3.7.2 At least one of the following major control methods or devices:

1. Freeboard with freeboard ratio greater than or equal to 0.75.

2. A freeboard chiller where the chilled air blanket temperature measured in degrees F at the coldest point on the vertical axis in the center of the solvent cleaner shall be no greater than 30% of the initial boiling point of the solvent or  $41^{\circ}$ F (5°C).

3. A carbon adsorption system which ventilates the air vapor interface at a minimum rate of  $15 \text{ m}^3/\text{min/m}^2$ , but not greater than  $20 \text{ m}^3/\text{min/m}^2$ , and with a solvent vapor concentration exiting the exhaust duct of the carbon absorber less than 25 ppm solvent average over one complete adsorption cycle.

4. Where add-on control equipment is utilized collection efficiency shall be determined by the EPA document "Guidelines for Developing Capture Efficiency Protocols," 55 Federal Register 26865, June 29, 1990.

3.7.3 For conveyorized degreasers, both of the following devices:

1. A drying tunnel, or another means such as a rotating basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor.

2. Minimized opening: entrances and exits should silhouette work loads so that the average clearance between parts and the edge of the degreaser opening is either less than 4 inches (10 cm) or less than 10 percent of the width of the opening.

3.7.4 Workplace fans shall not be used in a manner that disturbs the air/vapor interface.

# 4.0 Operating Requirements

Any person who employs solvent metal cleaning (degreasing) must conform, unless otherwise exempted by this rule to the following operating requirements:

4.1 Operate and maintain the degreasing equipment and emission control equipment in proper working order.

4.2 Do not allow any solvent to leak from any portion of the degreasing equipment.Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.4.3 Do not store or dispose of any solvent, including waste solvent, in such a manner as will cause or allow its evaporation into the atmosphere.

4.4 Do not remove or open any device designed to close the degreaser unless processing work in the degreaser or performing maintenance on the degreaser.

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4.5 Drain cleaned parts for at least 15 seconds after cleaning or until dripping ceases (applies to cold solvent cleaning only).

4.6 If using a solvent flow, use only a continuous, fluid stream (not a fine, atomized, or shower type spray) at a pressure which does not cause liquid solvent to splash outside of the solvent container.

4.7 Perform solvent agitation, where necessary, through pump recirculation, ultrasonics, or by means of a mixer, rather than through bubbling or air agitation of the solvent bath.4.8 For open-top vapor degreasers:

4.8.1. Rack parts to facilitate drainage.

4.8.2. Move parts in and out of the degreaser at less than 10.8 ft (3.3 m)/min.

4.8.3. Degrease the work load in the vapor zone at least 30 seconds or until condensation ceases.

4.8.4. Allow parts to dry within the degreaser until visually dry. Minimize carryout in open-top vapor degreasers by tipping out any pools of solvent on the cleaned parts before removal.

4.8.5. Work loads shall not occupy more than half of the degreaser's open-top area.

4.8.6. All solvent spraying shall be done at least 4 inches (10 cm) below the top of the vapor level.

4.8.7. The vapor level shall not drop more than 4 inches (10 cm) when a work load enters the vapor zone.

4.9 For conveyorized degreasers:

4.9.1. Rack parts to facilitate drainage.

4.9.2. Maintain vertical conveyor speed at less than 10.8 ft (3.3 m)/min.

4.9.3. The down-time cover must be placed over entrances and exits immediately after the conveyor and exhaust are shut down and removed immediately before they are started up.

4.10 For both open-top vapor and conveyorized degreasers: water shall not be visibly detected in solvent exiting the water separator.

# 5.0 Record Keeping Requirement

Any facility or operator subject to the requirements of this rule shall keep records on a facility-wide, quarterly basis showing the types and total amount of solvent used in all solvent cleaning operations. Records shall be maintained and available for AQMD inspection, for two years.

# 6.0 Test Methods

5.1 Determination of Capture Efficiency

The efficiency of carbon adsorption systems or alternative control systems shall be determined by EPA Reference Method 25.

5.2 Determination of VOC Content

The volatile organic compound content of solvents used, less water, shall be determined by at least one of the following methods:

5.2.1 Measuring the volatile content of the solvent shall be determined by the procedures outlined in ASTM D-86.

5.2.2 Calculation of the volatile organic compound per liter of solvent shall be by the procedures outlined in ASTM D 3960, Section 8.2.4.

5.3 Determination of Boiling Point

Initial boiling points of solvents shall be determined by ASTM D-1078-78.

5.4 Determination of Ventilation Rates

Ventilation rates shall be determined by one of the following EPA Reference Methods, as appropriate: EPA Reference Method 2, 2A, 2C or 2D.

#### **RULE 230**

#### ARCHITECTURAL COATINGS

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## 7 VIOLATIONS

## 1 GENERAL

- **1.1 Purpose:** To limit the quantity of Volatile Organic Compounds (VOCs) in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the Western Nevada County (definition, see Section 2.74).
- **1.2 Applicability:** Except as provided in Section 1.3 below, this Rule is applicable to any person who: (1) supplies, sells, offers for sale, or manufactures any architectural coating for use within the Western Nevada County; (2) manufactures, blends, or repackages any architectural coating for use within Western Nevada County; (3) applies or solicits the application of any architectural coating within the Western Nevada County.
  - **1.2.1** On and after 60 days following the effective date of the U.S. Environmental Protection Agency's (EPA) final determination that the Western Nevada County ozone nonattainment area has failed to meet a Reasonable Further Progress (RFP) milestone for the 2015 8-hour Ozone National Ambient Air Quality Standard or failed to reach attainment by the prescribed attainment date of August 3, 2027, as described in Clean Air Act Sections 172(c)(9) and 182(c)(9), this rule shall be implemented only in the Western Nevada County nonattainment area.
- **1.3 Exemptions:** This Rule does not apply to:
  - **1.3.1** Any architectural coating that is sold or manufactured for use outside of the Western Nevada County or for shipment to other manufacturers for reformulation or repackaging.
  - **1.3.2** Any aerosol coating product.
  - **1.3.3** With the exception of section 5, this rule does not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less provided the following requirements are met:
    - 1.3.3.1 The coating container is not bundled together with other containers of the same specific coating category (listed in Table 1) to be sold as a unit that exceeds one liter (1.057 quart), excluding containers packed together for shipping to a retail outlet, and
    - **1.3.3.2** The label or any other product literature does not suggest combining multiple containers of the same specific category (listed in **Table 1**) so that the combination exceeds one liter (1.057 quart).
  - **1.3.4** Colorant added at the factory or at the worksite is not subject to the VOC limit in **Table 2**. In addition, containers of colorant sold at the point of sale for use in the field or on a job site are also not subject to

## the VOC limit in **Table 2**.

## **2 DEFINITIONS**

- **2.1** Adhesive: Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.
- **2.2** Aerosol Coating Product: A pressurized coating product containing pigments or resins that dispense product ingredients by means of a propellant and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications.
- **2.3** Aluminum Roof Coating: A coating labeled and formulated exclusively for application to roofs and containing at least 84 grams of elemental aluminum pigment per liter of coating (at least 0.7 pounds per gallon). Pigment content shall be determined in accordance with SCAQMD Method 318-95, incorporated by reference in Section 6.5.4.
- 2.4 Appurtenances: Any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain-gutters and down-spouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.
- **2.5** Architectural Coating: A coating to be applied to stationary structures and their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purpose of this Rule.
- **2.6 ASTM:** ASTM International
- 2.7 Basement Specialty Coating: A clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a hydrostatic seal for basements and other below-grade surfaces. Basement Specialty Coatings must meet the following criteria:
  - **2.7.1** Coating must be capable of withstanding at least 10 psi of hydrostatic pressure, as determined in accordance with ASTM D7088-17, which is incorporated by reference in Section 6.5.12; and
  - **2.7.2** Coating must be resistant to mold and mildew growth and must achieve a microbial growth rating of 8 or more, as determined in accordance with ASTM D3273-16 and ASTM D3274-09 (2017), incorporated by reference in Section 6.5.19.
- **2.8 BAAQMD:** Bay Area Air Quality Management District.

- **2.9 Bitumens:** Black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.
- **2.10 Bituminous Roof Coating:** A coating which incorporates bitumens that is labeled and formulated exclusively for roofing.
- **2.11 Bituminous Roof Primer:** A primer which incorporates bitumens that is labeled and formulated exclusively for roofing.
- **2.12 Bond Breaker:** A coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.
- **2.13 Building Envelope:** The ensemble of exterior and demising partitions of a building that enclose conditioned space.
- 2.14 Building Envelope Coating: The fluid applied coating applied to the building envelope to provide a continuous barrier to air or vapor leakage through the building envelope that separates conditioned from unconditioned spaces. Building Envelope Coatings are applied to diverse materials including, but not limited to, concrete masonry units (CMU), oriented strand board (OSB), gypsum board, and wood substrates and must meet the following performance criteria:
  - 2.14.1 Air Barriers formulated to have an air permeance not exceeding 0.004 cubic feet per minute per square foot under a pressure differential of 1.57 pounds per square foot (0.004 cfm/ft2 @ 1.57 psf), [0.02 liters per square meter per second under a pressure differential of 75 Pa (0.02 L/(s m2) @ 75 Pa)] when tested in accordance with ASTM E2178-13, incorporated by reference in Section 6.5.9; and/or
  - **2.14.2** Water Resistive Barriers formulated to resist liquid water that has penetrated a cladding system from further intruding into the exterior wall assembly and is classified as follows:
    - **2.14.2.1** Passes water resistance testing accordance to ASTM E331-00(2016), incorporated by reference in Section 6.5.24; and
    - **2.14.2.2** Water vapor permeance is classified in accordance with ASTM E96/E96M-16, incorporated by reference in Section 6.5.25.
- **2.15 CARB:** California Air Resources Board.
- **2.16** Coating: A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited

to, paints, varnishes, sealers, and stains.

- **2.17 Colorant:** A concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.
- **2.18 Concrete Curing Compound:** A coating labeled and formulated for application to freshly poured concrete to perform one or more of the following functions:
  - 2.18.1 Retard the evaporation of water; or
  - **2.18.2** Harden or dustproof the surface of freshly poured concrete.
- **2.19 Concrete/Masonry Sealer:** A clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one or more of the following functions:
  - **2.19.1** Prevent penetration of water;
  - **2.19.2** Provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or
  - **2.19.3** Harden or dustproof the surface of aged or cured concrete.
- **2.20 Conversion Varnish:** A clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two component products. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. The film formation is the result of an acid-catalyzed condensation reaction, affecting a transetherification at the reactive ethers of the amino resins.
- **2.21 Driveway Sealer:** A coating labeled and formulated for application to worn asphalt driveway surfaces to perform one or more of the following functions:
  - 2.21.1 Fill cracks; or
  - 2.21.2 Seal the surface to provide protection; or
  - **2.21.3** Restore or preserve the appearance.
- **2.22 Dry Fog Coating:** A coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.
- **2.23 Exempt Compound:** A compound identified as exempt under the definition of Volatile Organic Compound (VOC), Section 2.69.
- **2.24 Faux Finishing Coating:** A coating labeled and formulated to meet one or more of the following criteria:
  - **2.24.1** A glaze or textured coating used to create artistic effects, including, but not limited to: dirt, suede, old age, smoke damage, and simulated marble and wood grain; or

- **2.24.2** A decorative coating used to create a metallic, iridescent, or pearlescent appearance that contains at least 48 grams of pearlescent mica pigment or other iridescent pigment per liter of coating as applied (at least 0.4 pounds per gallon); or
- **2.24.3** A decorative coating used to create a metallic appearance that contains less than 48 grams of elemental metallic pigment per liter of coating as applied (less than 0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95, incorporated by reference in Section 6.5.4; or
- **2.24.4** A decorative coating used to create a metallic appearance that contains greater than 48 grams of elemental metallic pigment per liter of coating as applied (greater than 0.4 pounds per gallon) and which requires a clear topcoat to prevent the degradation of the finish under normal use conditions. The metallic pigment content shall be determined in accordance with SCAQMD Method 318-95, incorporated by reference in Section 6.5.4; or
- **2.24.5** A clear topcoat to seal and protect a Faux Finishing coating that meets the requirements of Section 2.23.1, 2.23.2, 2.23.3, or 2.23.4. These clear topcoats must be sold and used solely as part of a Faux Finishing coating system and must be labeled in accordance with Section 4.4.
- **2.25** Fire-Resistive Coating: An opaque coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials, that has been fire tested and rated by a testing agency approved by building code officials for use in bringing assemblies of structural materials into compliance with federal, state, and local building code requirements. The fire-resistive coating and the testing agency must be approved by building code officials. The fire-resistive coating shall be tested in accordance with the ASTM Designation E 119-98. The fire-resistive coatings and the testing agency must also be approved by building code officials.
- **2.26** Flat Coating: A coating that is not defined under any other definition in this Rule and that registers gloss less than 15 on an 85-degree meter, or less than 5 on a 60-degree meter in accordance with ASTM D523-14(2018) incorporated by reference in Section 6.5.3.
- **2.27** Floor Coating: An opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces which may be subject to foot traffic.
- **2.28** Form-Release Compound: A coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some other material other than concrete.
- **2.29** Graphic Arts Coating (Sign Paint): A coating labeled and formulated for hand-application by artists using brush or roller techniques to indoor and outdoor

signs (excluding structural components) and murals including lettering enamels, poster colors, copy blockers, and bulletin enamels.

- **2.30 High-Temperature Coating:** A high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).
- **2.31 Industrial Maintenance Coating:** A high performance architectural coating, including primers, sealers, undercoats, intermediate coats, and topcoats formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions listed in Sections 2.30.1 through 2.30.5, and labeled as specified in Section 4.5:
  - **2.31.1** Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
  - **2.31.2** Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
  - **2.31.3** Repeated exposure to temperatures above 121°C (250°F);
  - **2.31.4** Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or
  - **2.31.5** Exterior exposure of metal structures and structural components.
- **2.32** Interior Stain: A stain labeled and formulated exclusively for use on interior surfaces.
- **2.33 Intumescent:** A material that swells as a result of heat exposure, thus increasing in volume and decreasing in density.
- **2.34** Low-Solids Coating: A coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material.
- **2.35** Magnesite Cement Coating: A coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.
- **2.36** Manufacturer's Maximum Thinning Recommendation: The maximum recommendation for thinning that is indicated on the label or lid of the coating container.
- **2.37 Market:** To facilitate sales through third party vendors including, but not limited to, catalog or ecommerce sales that bring together buyers and sellers. For the purposes of this rule, market does not mean to generally promote or advertise coatings.
- **2.38** Mastic Texture Coating: A coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities and is applied in a single coat

of at least 10 mils (0.010 inch) dry film thickness.

- **2.39** Medium Density Fiberboard (MDF): A composite wood product, panel, molding, or other building material composed of cellulosic fibers (usually wood) made by dry forming and pressing of a resinated fiber mat.
- **2.40** Metallic Pigmented Coating: A coating containing at least 48 grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95.
- **2.41** Multi-Color Coating: A coating that is packaged in a single container and that exhibits more than one color when applied in a single coat.
- **2.42** Nonflat Coating: A coating that is not defined under any other definition in this rule and that registers a gloss of 15 or greater on an 85-degree meter and 5 or greater on a 60-degree meter according to ASTM D523-14(2018).
- **2.43 Particleboard:** A composite wood product panel, molding, or other building material composed of cellulosic material (usually wood) in the form of discrete particles, as distinguished from fibers, flakes, or strands, which are pressed together with resin.
- **2.44 Pearlescent:** Exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.
- **2.45 Plywood:** A panel product consisting of layers of wood veneers or composite core pressed together with resin. Plywood includes panel products made by either hot or cold pressing (with resin) veneers to a platform.
- **2.46 Post-consumer Coating:** Finished coatings generated by a business or consumer that have served their intended end uses, and are recovered from or otherwise diverted from the waste stream for the purpose of recycling.
- **2.47 Pre-Treatment Wash Primer:** A primer that contains a minimum of 0.5 percent acid, by weight, and labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats. The acidity of a Pretreatment Wash Primer shall be measured by ASTM D1613-17.
- **2.48 Primer, Sealers and Undercoater:** Coatings labeled, formulated, and applied to substrates to:
  - 2.48.1 Provide a firm bond between the substrate and subsequent coats; or
  - 2.48.2 Prevent subsequent coatings from being absorbed by the substrate; or
  - 2.48.3 Prevent harm to subsequent coatings by materials in the substrate; or
  - 2.48.4 Provide a smooth surface for the substrate application of coatings; or
  - 2.48.5 Provide a clear finish coat to seal the substrate; or
  - **2.48.6** Block materials from penetrating into or leaching out of a substrate.

- 2.49 Reactive Penetrating Sealer: A clear or pigmented coating that is labeled and formulated for application to above-grade concrete and masonry substrates to provide protection from water and waterborne contaminants, including, but not limited to, alkalis, acids, and salts. Reactive Penetrating Sealers must penetrate into concrete and masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. Reactive Penetrating Sealers line the pores of concrete and masonry substrates with a hydrophobic coating, but do not form a surface film. Reactive Penetrating Sealers must meet all of the following criteria:
  - **7.1.1** The Reactive Penetrating Sealer must improve water repellency at least 80 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with one or more of the following standards, incorporated by reference in Section 6.5.19: ASTM C67/C67M-18, or ASTM C97/97M-18, or ASTM C140/C140M-18a; and
  - **7.1.2** The Reactive Penetrating Sealer must provide a breathable waterproof barrier for concrete or masonry surfaces that does not prevent or substantially retard water vapor transmission. This performance must be verified on standardized test specimens, in accordance with ASTM E96/96M-16 or ASTM D6490-99 (2014), incorporated by reference in Section 6.5.20; and
  - **7.1.3** Products labeled and formulated for vehicular traffic surface chloride screening applications must meet the performance criteria listed in the National Cooperative Highway Research Report 244 (1981), incorporated by reference in Section 6.5.21.

Reactive Penetrating Sealers must be labeled in accordance with Section 4.6.

- **2.50 Recycled Coating:** An architectural coating formulated such that it contains a minimum of 50% by volume post-consumer coating, with a maximum of 50% by volume secondary industrial materials or virgin materials.
- **2.51 Residential:** Areas where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.
- **2.52 Roof Coating:** A non-bituminous coating labeled and formulated for application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation.
- **2.53 Rust Preventative Coating:** A coating formulated to prevent the corrosion of metal surfaces for one or more of the following applications:
  - **2.53.1** Direct-to-metal coating; or
  - **2.53.2** Coating intended for application over rusty, previously coated surfaces.

The Rust Preventative category does not include the following:

- 2.53.3 Coatings that are required to be applied as a topcoat over a primer; or
- **2.53.4** Coatings that are intended for use on wood or any other nonmetallic surface.

Rust Preventative coatings are for metal substrates only and must be labeled as such, in accordance with the labeling requirements in Section 4.7.

- **2.54** Secondary Industrial Materials: Products or by-products of the paint manufacturing process that are of known composition and have economic value but can no longer be used for their intended purpose.
- **2.55** Semitransparent Coating: A coating that contains binders and colored pigments and is formulated to change the color of the surface but not conceal its grain patterns or texture.
- **2.56** Shellac: A clear or opaque coating formulated solely with the resinous secretions of the lac beetle (Laccifer lacca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.
- **2.57** Shop Application: Application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).
- **2.58** Solicit: To require for use or to specify, by written or oral contract.
- 2.59 SCAQMD: South Coast Air Quality Management District.
- **2.60** Specialty Primer, Sealer, and Undercoater: Coatings formulated for application to a substrate to block water-soluble stains resulting from: fire damage, smoke damage; or water damage.

Specialty Primers, Sealers, and Undercoaters must be labeled in accordance with Section 4.8.

- **2.61 Stain:** A clear, semitransparent, or opaque coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.
- **2.62** Stone Consolidant: A coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. Stone Consolidants must penetrate into stone substrates to create bonds between particles and consolidate deteriorated material. Stone Consolidants must be specified and used in accordance with ASTM E2167-01 (2008), incorporated by reference in Section 6.5.22.

Stone Consolidants are for professional use only and must be labeled as such, in accordance with the labeling requirements in Section 4.9.

- **2.63** Swimming Pool Coating: A coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals. Swimming pool coatings include coatings used for swimming pool repair and maintenance.
- **2.64 Tile and Stone Sealers:** A clear or pigmented sealer that is used for sealing tile, stone or grout to provide resistance against water, alkalis, acids, ultraviolet light or straining and which meet one of the following subcategories:
  - **2.64.1** Penetrating sealers are polymer solutions that cross-link in the substrate and must meet the following criteria:
    - **2.64.1.1** A fine particle structure to penetrate dense tile such as porcelain with absorption as low as 0.10 percent per ASTM C373-18, ASTM C97/C97M-18, or ASTM C642-13, incorporated by reference in Section 6.5.26;
    - **2.64.1.2** Retain or increase static coefficient of friction per ANSI A137.1 (2019), incorporated by reference in Section 6.5.27.;
    - **2.64.1.3** Not create a topical surface film on the tile or stone; and
    - **2.64.1.4** Allow vapor transmission per ASTM E96/E96M-16, incorporated by reference in Section 6.5.28.
  - **2.64.2** Film forming sealers which leave a protective film on the surface.
- **2.65 Tint Base:** An architectural coating to which colorant is added after packaging in sale units to produce a desired color.
- **2.66 Traffic Marking Coating:** A coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces, including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways. This coating category also includes Methacrylate Multicomponent Coatings used as traffic marking coatings. The VOC content of Methacrylate Multicomponent Coatings used as traffic marking coating shall be analyzed by the procedures in 40 CFR Part 59, Subpart D, Appendix A, incorporated by reference in Section 6.5.11.
- **2.67 Tub and Tile Refinish Coating:** A clear or opaque coating that is labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Tub and Tile Refinish coatings must meet all of the following criteria:
  - **2.67.1** The coating must have a scratch hardness of 3H or harder and a gouge hardness of 4H or harder. This must be determined on bonderite 1000, in accordance with ASTM D3363-05 (2011)e2, incorporated by reference in Section 6.5.14; and
  - **2.67.2** The coating must have a weight loss of 20 milligrams or less after 1000 cycles. This must be determined with CS-17 wheels on bonderite 1000, in accordance with ASTM D4060-14, incorporated by reference in Section 6.5.15; and

- **2.67.3** The coating must withstand 1000 hours or more of exposure with few or no #8 blisters. This must be determined on unscribed bonderite, in accordance with ASTM D4585-99, and 2020 CARB SCM for Architectural Coatings California Air Resources Board 12 May 2020 ASTM D714-02 (2017), incorporated by reference in Section 6.5.16; and
- **2.67.4** The coating must have an adhesion rating of 4B or better after 24 hours of recovery. This must be determined on unscribed bonderite, in accordance with ASTM D4585-/D4585M-18 and ASTM D3359-17, incorporated by reference in Section 6.5.13.
- **2.68** Veneer: Thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated veneer lumber, or other products.
- **2.69 Virgin Materials:** Materials that contain no post-consumer coatings or secondary industrial materials.
- **2.70** Volatile Organic Compound (VOC): Any volatile compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:

## **2.70.1** methane;

methylene chloride (dichloromethane); 1,1,1-trichloroethane (methyl chloroform); trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12); 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113); 1.2-dichloro-1.1.2.2-tetrafluoroethane (CFC-114); chloropentafluoroethane (CFC-115); chlorodifluoromethane (HCFC-22); 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123); 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124); 1,1-dichloro-1-fluoroethane (HCFC-141b); 1-chloro-1.1-difluoroethane (HCFC-142b): trifluoromethane (HFC-23): pentafluoroethane (HFC-125); 1,1,2,2-tetrafluoroethane (HFC-134); 1,1,1,2-tetrafluoroethane (HFC-134a); 1,1,1-trifluoroethane (HFC-143a); 1,1-difluoroethane (HFC-152a); cyclic, branched, or linear completely methylated siloxanes; the following classes of perfluorocarbons: cyclic, branched, or linear, completely fluorinated alkanes; cyclic, branched, or linear, completely fluorinated ethers with no unsaturations:

cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine; and

- 2.70.2 the following low-reactive organic compounds which have been exempted by the U.S. EPA: acetone; ethane; parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene);perchloroethylene; and methyl acetate
- **2.71 VOC Actual:** VOC Actual is the weight of VOC per volume of coating or colorant and it is calculated with the following equation:

# $VOC Actual = \frac{(Ws - Ww - Wec)}{(Vm)}$

Where:	
VOC Actual =	the grams of VOC per liter of coating (also known as "Material VOC").
Ws =	weight of volatiles, in grams.
Ww =	weight of water, in grams.
Wec =	weight of exempt compounds, in grams.
Vm =	volume of coating, in liters.

- **2.72 VOC Content:** The weight of VOC per volume of coating or colorant. VOC Content is VOC Regulatory, as defined in Section 2.72, for all coatings or colorants except those in the Low Solids category. For coatings or colorants in the Low Solids category, the VOC Content is VOC Actual, as defined in Section 2.70. If the coating is a multi-component product, the VOC content is VOC Regulatory as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.
- **2.73 VOC Regulatory:** VOC Regulatory is the weight of VOC per volume of coating or colorant, less the volume of water and exempt compounds. It is calculated with the following equation:

VOC Regulatory =  $\frac{(Ws - Ww - Wec)}{(Vm - Vw - Vec)}$ 

Where:

VOC Regulatory = the grams of VOC per liter of coating, less water and exempt compounds (also known as "Coating VOC").

- Ws = weight of volatiles, in grams.
- Ww = weight of water, in grams.
- Wec = weight of exempt compounds, in grams.
- Vm = volume of coating, in liters.
- Vw = volume of water, in liters.
- Vec = volume of exempt compounds, in liters.

- 2.74 Waterproofing Membrane: A clear or opaque coating labeled and formulated for application to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents penetration of water into the substrate. Waterproofing Membranes are intended for the following waterproofing applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters, and under flooring materials. The Waterproofing Membrane category does not include topcoats that are included in the Concrete/Masonry Sealer category (e.g., parking deck topcoats, pedestrian deck topcoats, etc.). Waterproofing Membranes must meet the following criteria:
  - **2.74.1** Coating must be applied in a single coat of at least 25 mils (at least 0.025 inch) dry film thickness; and
  - **2.74.2** Coatings must meet or exceed the requirements contained in ASTM C836/C836M-18 incorporated by reference in Section 6.5.17.

The Waterproofing Membrane category does not include topcoats that are included in the Concrete/Masonry Sealer category (e.g., parking deck topcoats, pedestrian deck topcoats, etc.).

- 2.75 Western Nevada County: Is based on a divide line that runs north/south near the Sierra crest, less than a mile east of the town of Soda Springs; the western portion of Nevada County, which lies west of a line, described as follows: Beginning at the Nevada-Placer County boundary and running north along the western boundaries of Sections 24, 13, 12, 1, Township 17 North, Range 14 East, Mount Diablo Base and Meridian, and Sections 36, 25, 24, 13, 12, Township 18 North, Range 14 East to the Nevada-Sierra County boundary.
- 2.76 Wood Coating: Coatings labeled and formulated for application to wood substrates only. The Wood Coatings category includes the following clear and semitransparent coatings: lacquers; varnishes; sanding sealers; penetrating oils; clear stains; wood conditioners used as undercoats; and wood sealers used as topcoats. The Wood Coatings category also includes the following opaque wood coatings: opaque lacquers; opaque sanding sealers; and opaque lacquer undercoaters. The Wood Coatings category does not include the following: clear sealers that are labeled and formulated for use on concrete/masonry surfaces; or coatings intended for substrates other than wood. Wood Coatings must be labeled "For Wood Substrates Only", in accordance with Section 4.10.
- 2.77 Wood Preservative: A coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code (U.S.C.) Section 136, *et seq.*) and with the California Department of Pesticide Regulation.)
- 2.78 Wood Substrate: A substrate made of wood, particleboard, plywood, medium density fiberboard, rattan, wicker, bamboo, or composite products with exposed wood grain. Wood Products do not include items comprised of

simulated wood.

- 2.79 Zinc-Rich Primer: A coating that meets all of the following specifications:
  - **2.79.1** Contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and
  - **2.79.2** Is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings; and
  - **2.79.3** Is intended for professional use only and is labeled as such, in accordance with the labeling requirements in Section 4.11.

## **3 STANDARDS**

**3.1 VOC CONTENT LIMITS:** Except as provided in and 3.3 and 3.4 no person shall:

- a. manufacture, blend, or repackage for use within Western Nevada County;
- b. supply, sell, market, or offer for sale within Western Nevada County; or
- solicit for application or apply within the Western Nevada County, any architectural coating with a VOC content in excess of the corresponding limit specified in **Table 1**, after the specified effective date in **Table 1**. Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

#### Coating Category Effective 1/1/2022) Flat Coatings 50 Nonflat Coatings 100 Nonflat-High Gloss 150 **Specialty Coatings:** Aluminum Roof Coating 100 Basement Specialty Coating 400 **Bituminous Roof Coating** 50 **Bituminous Roof Primers** 350 **Bond Breakers** 350 **Building Envelope Coatings** 50 Concrete Curing Compounds 350 Concrete/Masonry Sealers 100 **Conversion Varnish** 550 Driveway Sealers 50 Dry Fog Coating 50 Faux Finishing Coating 350 Fire Resistant Coating 150 Floor Coatings 50

## TABLE 1: VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS

Form-Release Compounds	100
Graphic Arts Coating (Sign Paints)	500
High Temperature Coating	420
Industrial Maintenance Coatings	250
Low Solids Coatings	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	100
Metallic Pigmented Coatings	500
Multi-Color Coatings	250
Pre-Treatment Wash Primers	420
Primers, Sealers, and Undercoaters	100
Reactive Penetrating Sealers	350
Recycled Coatings	250
Roof Coatings	50
Rust Preventative Coatings	250
Shellacs:	
• Clear	730
Opaque	550
Specialty Primers, Sealers, and Undercoaters	100
Stains (Exterior/Dual, Interior)	100
Stone Consolidants	450
Swimming Pool Coatings	340
Tile and Stone Sealers	100
Traffic Marking Coatings	100
Tube and Tile Refinish Coatings	420
Waterproofing Membrane	100
Wood Coating	275
Wood Preservatives	350
Zinc-Rich Primers	340

- **3.2** Coating Not Listed in Table 1. VOC Content of Coatings : For any coating that does not conform with any of the definitions for the specialty coating categories listed in Table 1, the VOC content limit shall be determined by classifying the coating as a Flat or Nonflat coating, based on its gloss, as defined in Sections 2.25 and 2.41 and the corresponding Flat or Nonflat VOC limit in Table 1 shall apply.
- 3.3 Most Restrictive VOC Content Limits: If a coating meets the definition in Section 2 for one or more specialty coating categories that are listed in Table 1, then that coating is not required to meet the VOC limits for Flat or Nonflat, but is required to meet the VOC limit for the applicable specialty coating listed in Table 1.

With the exception of the specialty coating categories specified in Sections 3.3.1 through 3.3.12, if a coating is recommended for use in more than one of the specialty coating categories listed in **Table 1**, the most restrictive (or lowest) VOC content limit shall

apply. This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf This provision does not apply to the specialty coating categories specified below:

- **3.3.1** Metallic pigmented coatings.
- **3.3.2** Shellacs.
- **3.3.3** Pretreatment wash primers.
- **3.3.4** Industrial maintenance coatings.
- **3.3.5** Low-solids coatings.
- **3.3.6** Wood preservatives.
- **3.3.7** High temperature coatings.
- **3.3.8** Bituminous roof primers.
- **3.3.9** Specialty primers, sealers, and undercoaters.
- **3.3.10** Aluminum roof coatings.
- **3.3.11** Zinc-rich primers.
- **3.3.12** Wood Coatings
- **3.4** Sell-through Provisions: Coatings or colorants manufactured prior to January 1, 2022, shall comply with the following requirements:
  - **3.4.1** A coating manufactured prior to January 1, 2022, may be sold, supplied, or offered for sale for up to three years after January 1, 2022. In addition, a coating manufactured before January 1, 2022, may be applied at any time, both before and after January 1, 2022, so long as the coating complied with all applicable provisions of this rule. This provision does not apply to any coating that does not display the date or date-code required by Section 4.1.
  - **3.4.2** A colorant manufactured prior to January 1, 2022, may be sold, supplied, or offered for sale for up to three years after January 1, 2022. In addition, a colorant manufactured before January 1, 2022, may be applied at any time, both before and after January 1, 2022, so long as the colorant complied with all applicable provisions of this rule. This provision does not apply to any colorant that does not display the date or date-code required by Section 4.12.1.
- **3.5** Thinning: No person who applies or solicits the application of any architectural coating shall apply or specify the application of a coating that is thinned to exceed the applicable VOC limit specified in Table 1.
- **3.6 Painting Practices:** All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of

any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.

**3.7 Colorants:** No person within Western Nevada County shall, at the point of sale of any architectural coating subject to Section 3.1, add to such coating any colorant that contains VOC in excess of the corresponding applicable VOC limit specified in **Table 2.** VOC Content of Colorants. The point of sale includes retail outlets that add colorant to a coating container to obtain a specific color.

Colorant Added To	VOC
Coating Categories	Grams/liter
Architectural Coatings, excluding Industrial Maintenance	50
Coatings	
Solvent-Based Industrial Maintenance	600
Coatings	
Waterborne Industrial Maintenance Coatings	50
Wood Coatings	600

# **2. VOC Content of Colorants**

# 4 CONTAINER LABELING REQUIREMENTS

- **4.1 Date Code:** The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the Air Resources Board (ARB).
- **4.2 Thinning Recommendations:** The manufacturer's thinning recommendations shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.
- **4.3 VOC Content:** Each container of any coating subject to this rule shall display one of the following values in grams of VOC per liter of coating:
  - **4.3.1** Maximum VOC Content as determined from all potential product formulations; or
  - **4.3.2** VOC Content as determined from actual formulation data; or
  - **4.3.3** VOC Content as determined using the test methods in Section 6.2.

If the manufacturer does not recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the container must display the VOC content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing. VOC Content shall be determined as defined in Sections 2.70, 2.71, and 2.72.

- **4.4 Faux Finishing Coatings:** The labels of all clear topcoat faux finishing coatings shall prominently display the following statement: "This product can only be sold or used as a part of a Faux Finishing coating system".
- **4.5 Industrial Maintenance Coatings:** The labels of all Industrial Maintenance coatings shall prominently display the statement "For industrial use only" or "For professional use only".
- **4.6 Reactive Penetrating Sealers:** The labels of reactive penetrating sealers shall prominently display the statement "Reactive Penetrating Sealer".
- **4.7 Rust Preventative Coatings:** The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only".
- **4.8** Specialty Primers, Sealers, and Undercoaters: The labels of all specialty primers, sealers, and undercoaters shall prominently display the statement "Specialty Primer, Sealer, Undercoater".
- **4.9** Stone Consolidants: The labels of Stone Consolidants shall prominently display the statement "Stone Consolidant For Professional Use Only".
- **4.10 Wood Coating:** The labels of Wood Coatings shall prominently display the statement "For Wood Substrates Only".
- **4.11 Zinc Rich Primers:** The labels of Zinc-Rich Primers shall prominently display the statement "For professional use only".
- **4.12** Effective January 1, 2022, each manufacturer of any colorant subject to this rule shall display the information listed in Sections 4.12.1 and 4.12.2 on the container (or its label) in which the colorant is sold or distributed.
  - **4.12.1 Date Code:** The date the colorant was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any colorant, the manufacturer shall file an explanation of each code with the Executive Officer.
  - **4.12.2 VOC Content:** Each container of any colorant subject to this rule shall display one of the following values in grams of VOC per liter of colorant:

4.12.2.1 Maximum VOC Content as determined from all

potential product formulations; or

- **4.12.2.2** VOC Content as determined from actual formulation data; or
- **4.12.2.3** VOC Content as determined using the test methods in Section 6.2.

If the colorant contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing. VOC Content shall be determined as defined in Sections 2.69, 2.70, and 2.71.

### **5 REPORTING REQUIREMENTS**

- **5.1** Sales Data: A responsible official from each manufacturer shall upon request of the Executive Officer of the CARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. The responsible official shall within 180 days provide information, including, but not limited to:
  - **5.1.1** the name and mailing address of the manufacturer;
  - 5.1.2 the name, address, and telephone number of a contact person;
  - **5.1.3** the name of the coating product as it appears on the label and the applicable coating category;
  - **5.1.4** whether the product is marketed for interior or exterior use or both;
  - **5.1.5** the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);
  - **5.1.6** the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;
  - 5.1.7 the names and CAS numbers of the VOC constituents in the product;
  - **5.1.8** the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition, as listed in Section 2.69.1 or 2.69.2;
  - **5.1.9** whether the product is marketed as solventborne, waterborne, or 100% solids;
  - **5.1.10** description of resin or binder in the product;
  - **5.1.11** whether the coating is a single-component or multi-component product;
  - 5.1.12 the density of the product in pounds per gallon;
  - **5.1.13** the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition, as listed in Section 2.69.1 or 2.69.2; and
  - **5.1.14** the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition, as listed in Section 2.69.1 or 2.69.2.

All sales data listed in Sections 5.1.1 to 5.1.14 shall be maintained by the responsible official for a minimum of three years. Sales data submitted by the responsible official to the Executive Officer of the ARB may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations Sections 91000-91022.

## 6 COMPLIANCE PROVISIONS AND TESTING REQUIREMENTS

- 6.1 Calculations of VOC Content: For the purpose of determining compliance with the VOC content limits in Table 1 or Table 2, the VOC content of a coating or colorant shall be determined as defined in Section 2.70, 2.71, or 2.72. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the VOC content must be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.
- **6.2 VOC Content of Coatings:** The VOC content of coatings or colorants shall be determined by the following:
  - **6.2.1** To determine the physical properties of a coating or colorant in order to perform the calculations in Section 2.70 or 2.72, the reference method for VOC content is U.S. EPA Method 24, incorporated by reference in Section 6.5.9, except as provided in Sections 6.3 and 6.4.
  - **6.2.2** An alternative method to determine the VOC content of coatings or colorants is SCAQMD Method 304-91 (Revised 1996), incorporated by reference in Section 6.5.9.
  - **6.2.3** The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised 1996), BAAQMD Method 43 (Revised 2005), or BAAQMD Method 41 (Revised 2005), as applicable, incorporated by reference in Sections 6.5.8, 6.5.6, and 6.5.7, respectively.
  - **6.2.4** To determine the VOC content of a coating or colorant, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in Section 6.3, formulation data, or any other reasonable means for predicting that the coating or colorant has been formulated as intended (e.g., quality assurance checks, record keeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section 6.3.

- **6.2.5** To determine the VOC content of a coating or colorant with a VOC content of 150 g/l or less, the manufacturer may use SCAQMD Method 313, incorporated by reference in Section 6.5.29, ASTM D6886-18, incorporated by reference in Section 6.5.30, or any other reasonable means for predicting that the coating or colorant has been formulated as intended (e.g., quality assurance checks, record keeping).
- **6.2.6** The Western Nevada County Air Pollution Control Officer (APCO) may require the manufacturer to conduct a Method 24 analysis.
- **6.3** Alternative Test Method: Alternatively, the VOC content of coatings or colorants may be determined by SCAQMD Method 304-91 (1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials", SCAQMD "Laboratory Methods of Analysis for Enforcement Samples".
- **6.4 Methacrylate Traffic Marking Coatings:** Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in Section 6.5.11. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.
- **6.5 Test Methods:** The following test methods are incorporated by reference herein, and shall be used to test coatings subject to the provisions of this rule:
  - **6.5.1 Flame Spread Index:** The flame spread index of a fire-retardant coating shall be determined by ASTM E84-18b, "Standard Test Method for Surface Burning Characteristics of Building Materials" (see section 2, Fire-Retardant Coating).
  - **6.5.2** Fire Resistance Rating: The fire resistance rating of fire-resistive coatings shall be determined by ASTM E119-20, "Standard Test Methods for Fire Tests of Building Construction and Materials" (see section 2, Fire-Resistive Coating).
  - **6.5.3 Glass Determination:** The gloss of flat and nonflat coatings shall be determined by ASTM D523- 14(2018), "Standard Test Method for Specular Gloss" (see section 2, Flat Coating and Nonflat Coating).
  - 6.5.4 Metal Content of Coatings: SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," SCAQMD Laboratory Methods of Analysis for Enforcement Samples (see section 2, Aluminum Roof, Faux Finishing, and Metallic Pigmented Coating).
  - **6.5.5** Acid Content of Coatings: The acid content of Pretreatment Wash Primer shall be determined by ASTM D1613-17, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates

Used in Paint, Varnish, Lacquer, and Related Products" (see section 2, Pre-treatment Wash Primer).

- 6.5.6 Exempt Compounds Siloxanes: Cyclic, branched, or linear completely methylated siloxanes shall be analyzed by BAAQMD Test Method 43, "Determination of Volatile Methylsiloxanes in Solvent Based Coatings, Inks, and Related Materials", BAAQMD Manual of Procedures, Volume III, adopted 05/18/2005 (see section 2, Volatile Organic Compound, and Section 6.2).
- 6.5.7 Exempt Compounds Parachlorobenzotrifluoride (PCBTF): PCBTF shall be analyzed by BAAQMD Test Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride", BAAQMD Manual of Procedures, Volume III, adopted 05/18/2005 (see section 2, Volatile Organic Compound, and Section 6.2).
- **6.5.8 Exempt Compounds:** The content of compounds exempt under EPA Test Method 24 shall be analyzed by SCAQMD Method 303-91 (1993), "Determination of Exempt Compounds", SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" (see section 4, Volatile Organic Compound, and Section 6.2).
- **6.5.9 VOC Content of Coatings:** The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in appendix A of 40 Code of Federal Regulations (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings" (see Section 6.2).
- **6.5.10** Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," SCAQMD Laboratory Methods of Analysis for Enforcement Samples (see Section 6.2).
- **6.5.11 Methacrylate Traffic Marking Coatings:** The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (see Section 6.4).
- **6.5.12 Hydrostatic Pressure for Basement Specialty Coatings:** ASTM D7088-17, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry" (see section 2, Basement Specialty Coating).

- **6.5.13 Tub and Tile Refinish Coating Adhesion:** ASTM D4585/4585M-18, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-17, "Standard Test Methods for Measuring Adhesion by Tape Test" (see section 2, Tub and Tile Refinish Coating).
- **6.5.14 Tub and Tile Refinish Coating Hardness:** ASTM D3363-05 (2011)e2, "Standard Test Method for Film Hardness by Pencil Test" (see section 2, Tub and Tile Refinish Coating).
- **6.5.15 Tub and Tile Refinish Coating Abrasion Resistance:** ASTM D4060-14, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser" (see section 2, Tub and Tile Refinish Coating).
- 6.5.16 Tub and Tile Refinish Coating Water Resistance: ASTM D4585/4585M-18, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D714-02 (2017), "Standard Test Method for Evaluating Degree of Blistering of Paints" (see section 2, Tub and Tile Refinish Coating).
- **6.5.17 Waterproof Membrane:** ASTM C836/836M-18, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course" (see section 2, Waterproofing Membrane).
- **6.5.18** Mold and Mildew Growth for Basement Specialty Coatings: ASTM D3273-16, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-09 (2017), "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth or Soil and Dirt Accumulation" (see section 2, Basement Specialty Coating).
- 6.5.19 Reactive Penetrating Sealer Water Repellency: ASTM C67/C67M-18, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile"; or ASTM C97/97M-18, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C140/140M-18a, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units" (see section 2, Reactive Penetrating Sealer).
- 6.5.20 Reactive Penetrating Sealer Water Vapor Transmission: ASTM E96/E96M-16, "Standard Test Method for Water Vapor Transmission of Materials"; or ASTM D6490-99 (2014), "Standard Test Method for Water Vapor Transmission of Nonfilm Forming Treatments Used on Cementitious Panels" (see section 2, Reactive Penetrating Sealer).

- **6.5.21 Reactive Penetrating Sealer- Chloride Screening Applications:** National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures" (see section 2, Reactive Penetrating Sealer).
- **6.5.22** Stone Consolidants: ASTM E2167-01 (2008), "Standard Guide for Selection and Use of Stone Consolidants" (see section 2, Stone Consolidant).
- **6.5.23 Building Envelope Coating Air Permeance of Building Materials:** ASTM E2178-13, "Standard Test Method for Air Permeance of Building Materials" (see section 2, Building Envelope Coating).
- **6.5.24 Building Envelope Coating Water Penetrating Testing:** ASTM E331-00 (2016), "Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference" (see section 2, Building Envelope Coating).
- **6.5.25 Building Envelope Coating Water Vapor Transmission:** ASTM E96/96M-16, "Standard Test Methods for Water Vapor Transmission of Materials" (see section 2, Building Envelope Coating).
- **6.5.26 Tile and Stone Sealers Absorption:** ASTM C373-18, "Standard Test Methods for Determination of Water Absorption and Associated Properties by Vacuum Method for Pressed Ceramic Tile and Glass Tiles and Boil Method for Extruded Ceramic Tiles and Non-tile Fired Ceramic Whiteware Products"; or ASTM C97/97M-18, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C642-13, "Standard Test Method for Density, Absorption, and Voids in Hardened Concrete" (see section 2, Tile and Stone Sealers).
- **6.5.27 Tile and Stone Sealers Static Coefficient of Friction:** ANSI A137.1 (2012), "American National Standard of Specifications for Ceramic Tile" (see section 2, Tile and Stone Sealers).
- **6.5.28 Tile and Stone Sealers Water Vapor Transmission:** ASTM E96/96M-16, "Standard Test Methods for Water Vapor Transmission of Materials" (see section 2, Tile and Stone Sealers).
- **6.5.29 VOC Content of Coatings:** SCAQMD Method 313, "Determination of Volatile Organic Compounds (VOC) by Gas Chromatography/Mass Spectrometry/Flame Ionization Detection (GS/MS/FID)" (see section 6.2, VOC Content of Coatings).
- **6.5.30 VOC Content of Coatings:** ASTM D6886-18, "Standard Test Method for Determination of the Weight Percent Individual Volatile Organic

Compounds in Waterborne Air-Dry Coatings by Gas Chromatography" (see section 6.2, VOC Content of Coatings).

# 7 VIOLATIONS

Failure to comply with any provision of this rule shall constitute a violation of this rule. The exceedance of the allowable emissions for any compliance period shall constitute a separate violation for each day of the compliance period. However, any violation of the requirements of the Averaging Provision of this Rule, which the violator can demonstrate, to the Executive Officer, did not cause or allow the emission of an air contaminant and was not the result of negligent or knowing activity may be considered a minor violation.